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## Author

Crawford, James, Jr.
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# The Cocopa Language 

By
James Mack Crawford, Jr. B.S.F. (University of Georgia) 1949

DISSERTATION

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The original homeland of the Cocopas was south of the international boundary along the Colorado River and in the delta region westward to the mouncains of Baja California. By 1890, according to Kelly (Bronson n.d.:7), a considerable number of cocopas had moved northward across the boundary to seek employment in connection with the building of canals and subjugation of the Imperial Valley of California and, somewhat later, of the Yume Valley of Arizona. The annual report of the Commissioner of Indian Affairs in 1879 lists 180 Cocopas not living on a reservation (Bronson n.d.:6). There were some 200 Cocopas living in the Yuma Valley in 1917 when an Executive Order established a reservation for them near Somerton (Colorado River Indian Agency 1944:1, Halford n.d.:1).

Only a small proportion of the Cocopas living in the Yuma and Somerton areas enrolled as wards of the government and moved to the reservation, which consisted of two areas: about 360 acres bounding the Colorado River northwest of Somerton and 160 acres southeast of Somerton along the eastern boundary of the flood plain of the river. The nonenrolled Cocopas continued to live in and around Somerton seeking employment as unskilled laborers on the ranches of the Valkey, Until the Second World War there was much visiting back and forth across the border among friends and relatives, with a minimum of restraint Erom the United States guards at the San Luis border station. Security restrictions during the wer and since have made entry into the United States more difficult and have re-
duced the immigration of Mexican Cocopas.
Kelly (1942) escimates the number of Cocopas in the United States as 300. Haverland (Bronson n.d.:14) in a letter to the Commissioner of Indian Affairs in 1958 says there are 250 Cocopas in the vicinity of Yuma. Chafe (1962) estimates there are 300 to 400 living in Arizona. My own inquiries (1963, 1965) brought forth estimates ranging from 350 to 400.

The number of Cocopas living in Mexico is greater than this. My informants speculated there were from 700 to 800 who lived in Sonora and Baja California. A missionary to the Mexican Cocopas, Miss Ruth Halford (Halford n.d.:4), estimates a grand total of 1055 Cocopas of both pure and mixed blood, 850 of whom live in Mexico.

At the present time Cocopas live in the United States in two major areas: the Yuma Valley and the Buckeye-Laveen area west of Phoenix. Most of the Cocopas in the latter area have arrived within the last ten to fifteen years, having been attracted by the demand for labor on the grain and cotton ranches. A further inducement to their migration into the west Phoenix area is the presence in the northwestern portion of the Gila River Reservation of their traditional friends, the Maricopas. Some 50 to 60 Cocopas were living in this area in the spring of 1965.

Cocopa is one of some ten languages of the Yuman family of the Hokan stock (Dixon and Kroeber 1913, Sapir
1917). It is not certain whether there are dialectal variations throughout the area where Cocopa is spoken. The 'mountain' Cocopas of the western delta region of Daja California are said by some informants to speak differently from the 'river' Cocopas. Other infurmants maintain that all Cocopas speak alike no matter where they are from. Kelly (1942) says the hwanyak group of the lower delta region is culturally and dialectally different from three other descent groups (p. 675). There has been considerable intermarriage between the Cocopas und the Paipais to the south and the Dieguefios to the west. It is possible that observed differences may be due to lexical items borrowed from Paipai or Dieguefio as a result of marriage or social contact. Differences in pronunciation might be explained in the learning of Cocopa after marriage by a native speaker of Paipai or Diegueño. An interesting future study will be that of possible dialect variation in Baja California.

Cocopa is the sole living member of the Delta group of Yuman languages (Kroeber 1943). The Kahwan (or Cajuenches) and the Halyikwamai (or Jalliquamai) in earlier times lived north of the Cocopa along the Colorado River and are believed to have spoken languages closely related to Cocopa. As far as is known, no word list has been recorded from anyone who spoke the language of the Halyikwamai. Kroeber (1943) obtained a list of words from a Kahwan speaker who was living with the

Maricopas. In the spring of 1963 I collected a short list of words from Mrs. Joan Yaramata, who is reputed to be the last Kahwan, on the Gila River Reservation. No significant difference is apparent between Cocopa and Kahwan in either my list or Krceber's. It is very possible that the Kahwan were a clan or a group of clans who spoke the same language as the Cocopa, but who lived separately from the main tribe.

The Cocopa call themselves k pá (in rapid speech kpá). When spoken more slowly with careful enunciation, two velars are present: $k^{w} k p a ́$ (phonetically, $k^{w i}{ }_{k}{ }^{a} p a ́ o r$ $\left.k^{u} k^{a} p a ́\right)$. They also call themselves capáy which they translate as 'Indian' and use in reference to other tribes as well as to themselves. The root -pá of both forms is unquestionably identical to that of apá 'man', sipá 'creator', i'páy 'become alive, be enlivened'.

Cocopas insist that the correct spelling of their name is Cocopah and, indeed, this is the spelling adopted in the executive order establishing the reservation and used by the Bureau of Indian Affairs. They are identified by various spellings in the accounts of explorers and missionaries, e.g., Cocapa, Cucupa, Cucapa. The latter is the offical Mexican spelling. The common spelling in American ethnographic and linguistic literature is Cocopa. This is the spelling adopted in the present grammar .

Various vocabularies and word lists have been collected from speakers of Cocopa over the years, some of
which have appeared in print and others of which have remained in manuscript. As far as is known, there has been no detailed phonological or grammatical description of the language. The amount of literature, in print or in manuscript, relating to the Cocopas is not large. The accompanying bibliography includes the major publications and manuscripts which contain both linguistic and ethnographic or cultural information.

The data for the present work were collected during the spring of 1963 and the winter and early spring of 1965 with financial support provided by the Survey of California Indian Languages of the Uniyersity of California, Ber\}eley. My principal informants were Mrs. Liliian Hayes, Mrs. Hope Miller, Mrs. Josephine Thomas, and Mrs. Mary Thomas. To these ladies I should like to express my appreciation for their patience in enduring the long sessions of elicitation and for their wit and humour which removed the drudgery and made the sessions, at least for me, a delight. I am very grateful to Mr. Charlie Huck for permitting me to record on tape his narration of numerous Cocopa tales. I should also like to thank Mr. Rudy Rayes and Mr. Victor Hayes who served as occasional interpreters and intermittent informants.

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interest in linguistics and American Indian languages, and to Professor Alan Dundes who encouraged me to delve into the relationship between language and culture and to study the context of speaking from the point of view of the speaker. I am deeply grateful to Professor Mary R. Haas for her guidance in my work and studies over the past six years, for the support and encouragement she provided during my weeks in the field, and for her valuable criticisms in the subsequent period of analysis and writing. Finally, $I$ wish to express my appreciation to Mrs. Eileen C. Odegaard for her patience and care in the typing of the manuscript.

## BIBLIOGRAPHY

## Abbreviations Used

AA American Anthropologist
AL Anthropological Linguistics
BAE-B Bureau of American Ethnology, Bulletin
IJAL International Journal of American Linguistics
SJA Southwestern Journal of Anthropology
SNC Smithsonian (Institution) Miscellaneous Collections

UCPAAE University of California Publications in American Archaeology and Ethnology

UCPL University of California Publications in Linguistics

Bronson, Leisa G.
n.d. A chronological history of the Cocopah Indians and their lands. 23 pp. (Released in mimeograph form in 1963 by the Phoenix Area Office of the Bureau of Indian Affairs.)

Castetter, Edward F. and Willis H. Bell
1951. Yuman Indian Agriculture. Univ. of New Mexico Press. Albuquerque.

Chafe, Wallace L.
1962. Estimates regarding the present speakers of North American Indian languages. IJAL 28:162-171.

Chittenden, H. H.
1901. Among the Cocopahs. Land of Sunshine (Out West) 14:196-204.

Colorado River Indian Agency
1944. Cocopah Reservation Program. 10 pp . (Mimeograph). Parker, Ariz.

Densmore, Frances
1925. Field work among the Yuma, Cocopa, and Yaqui Indians. SMC 74: 147-154.

Dixon, R. B., and A. L. Kroeber
1913. New linguistic families in California. AA 15:647-655.

Gatschet, Albert S.
1877. Der Yuma-Sprachstamm. Zeitschrift fur Ethnologie 9:341-350, 365-418.

Gifford, E. W.
1933. The Cocopa. UCPAAE 31:257-324.

Haas, Mary R.
1963. Shasta and proto-Hokan. Language 30:40-59. (Cocopa forms are cited in the reconatruction of proto-Hokan forms.)

Halford, Ruth
n.d. Cocopah Indians of Arizona and Mexico. 4 pp . (Typed manuscript. Notes on number of speakers, eulture, and missionary work with the Cocopas in Baja California. Has reference to Second World War indicating it was prepared in 1943 or 1944.)

Harrington, John P.
1908. A Yuma account of origins. Jour. of Amer. Folk-Lore 21:324-348. (List of numerals from Cocopa and other Yuman languages in footnote on pp. 324 and 325.)

Heintzelman, S. P.
1853. Indian Affairs on the Pacific. HR Ex. Doc. no. 36; 3rd Sess., 34th Cong. (1856-57):34-58.

Henshaw, H. W.
1907. Cajuenche. BAE-B 30:187.

Herzog, Wilh.
1878. Ueber die Verwandtschaft des Yumasprachstammes mit der Sprache der Aleuten und der Eskimostamme. Zeitschrift fltr Ethnologie 10:449-459.

Hodge, F. W.
1907. Cocopa. BAE-B 30:319-320.

Kelly, Dorothea S.
1951. - A brief history of the Cocopa Indians of the Colorado River Delta. For the Dean (Essays in Honor of B. S. Cummings): $159-170$.

Keily, William H.
1942. Cocopa gentes. AA 44:675-691.
1944. A preliminary study of the Cocopa Indians of Mexico. Harvard Univ. Ph.D. dissertation.

1949a. Cocopa attitudes and practices with respect to death and mourning. SJA 5:151-164.

1949b. Tha place of scalps in Cocopa warfare. El Palacio 56:85-91.

Kroeber, A. L.
1920. Yuman tribes of the lower Colorado. UCPAAE 16:475-485.
1931.

The Seri. Southwest Museum Papers 6:1-55. (Comparative vocabularies of Seri, Cochimi, Yuma, and Cocopa on p.34.)
1943. Classification of the Yuman languages. UCPI 1:21-40.

Law, Howard W.
1961. A reconstructed proto-culture derived from some Yuman vocabularies. $A L$ 3:4.45-57.

Lumholtz, Carl
1912 New trails in Mexico. New York. (Appendix I, pp. 368-376, contains short vocabularies "obtained from the Smithsonian Institution" from the languages of the Papago, Pima and Cocopa Indians.)

North, Arthur W.
1908.

The native tribes of Lower California. AA n.s. 10:236-250.

Sapir, Edward
1917.

The position of Yana in the Hokan stock. UCPAAE 13:1-34.

Smithsonian Institution manuscripts
MS. no.
1627 (part) Heintzelman, Major S. P. Vocabulary of the Cocopa language. Ft. Yuma, April 19, 1854. Copy by J. R. Bartlett pp. 165-166 in notebook.

1546

1866 (part) Peabody, E. P. Cocopa vocabulary. n.d. (ca. 1858). 1 page, in Stone, Col. Charles P., B.A.E. MS. 1866, "Notes on the Indians of Lower California."

Gibbs, George, copyist. Cocopa vocabulary of about 80 words. Copy By George Gibbs from "one obtained by Mr. Bartlett from Major Heintzelman" April 19, 1854 (B.A.E. MS. 1627, pp. 165-166), to which Gibbs has added and marked with an asterisk "some words collected by Mr. E. T. Peabody of Capt. C. P. Stone's surveying party in Sonora" (B.A.E. MS. 1866). 5 pp .

Spier, Leslie
1933.

Xuman tribes of the Gila River. Chicago.

Stewart, K. M. 1946.

Gila and Colorado River Yumans. Univ. of Calif. PhD. dissertation. Unpublished.

Wares, Alan C.
1965.

A comparative study of Yuman consonantism. Univ. of Texas. PhD. dissertation. Mimeographed.

Winter, Werner
1957. Yuman languages I: First impressions. IJAL 23:18-23.

## 100. PHONEMICS

110. The phonemes. The phonemes of Cocopa are as follows: Consonantai:

Obstruent:


Semiconsonant:
Lateral $\quad 1 I^{\text {Y }}$
Nasal $m \quad n \quad n^{y}$
Tap $r$
Semivowel: w y
The phonemes $/ \mathrm{d} / \mathrm{l} / \mathrm{f} / \mathrm{l} / \mathrm{v} / \mathrm{l} / \mathrm{d} /$, and $/ \mathrm{y} /$ occur in a few Spanish and English loanwords.

Vocalic:
Front Central Back
High i
Low

The front vowel /e/, always long, is present in a smell number of loanwords from Spanish and English. The back vowel /o/, long, occurs in one native word, an interjection. Prosodic:

Vowel length : • No mark
Juncture Space between forms Accentual:

Stress , " No mark Pitch level 12 Terminal contour * $\downarrow 1$
111. The consonants. The semiconsonants and semivowels are voiced and lenis. The spirant and lateral obstruents are voiceless and fortis. The stops are fortis and voiceless in any position prior to the stressed syllable. They are somewhat less fortis following the stressed syllable. In the latter position they are voiceless before an obstruent or in final position and voiced or voiceless before a vowel, semivowel, or semiconsonant.

The articulatory positions of the consonants are as follows:
/p/ is an unaspirated bilabial stop. The release is nasal before $/ \mathrm{m} /$ when $/ \mathrm{p} /$ follows the vowel of a stressed syllable. It is normally unreleased in final position: spáp 'be four' xṭpá 'coyote' xápm 'when I came in' $/ t /$ is an unaspirated interdental to apicodental
stop:
ptáy 'be big' túx 'be very little and round'
/t/ is rare in native words, but is very frequent in Spanish, and occasionally in English, loanwords: tu•má•t 'tomato' tré'n 'train' tín 'tub' ka•rít 'wagon'
/t/ is a moderately aspirated apicoalveolar to apicopostalveolar stop, fully released in all positions:
țáp 'I split'
cupít 'I cover'
pa•tín 'he shot him'
/c/ has two allophones. Prior to the stressed syllable it is an affricate composed of an apicodental stop with laminoprepalatal spirantal release, very slightly aspirated. Following the stressed syllable it is an unaspirated palatalized apicodental stop, optionally released in final position:

> cawís 'fish net'
> $\mathrm{cn}^{\mathrm{y}}$ ám
> $\mathrm{n}^{\mathrm{Y}}$ á•c $\mathrm{night}^{\prime}$ 'I'
> mapúca 'and you?'
/k/ has two allophones. It is dorsovelar before $/ a /$, /u/, and nonpalatal consonants excluding / $/$ /. It is dorsoprevelar to dorsopalatal before /i/ and, for most speakers, before palatal consonants. The allophone of $/ \mathrm{k} /$ before $/ \mathrm{P} /$ is determined by the quality of the vowel follow ing / / / /k/ is slightly aspirated and is fully released in all positions:

$$
\begin{aligned}
& \text { kú̇ }{ }^{\text {Y }} \text { 'I climb; be long' } \\
& \text { k?úy 'I cut hair' } \\
& \text { k?ík 'Say!' } \\
& k_{i} \cdot s \text { 'cheese' } \\
& \text { kpin }{ }^{\mathrm{y}} \text { 'beaver' } \\
& \mathrm{kn}^{\mathrm{Y}} \mathrm{a} \cdot \mathrm{p} \text { 'I relate! }
\end{aligned}
$$

```
/k
```

velar stop:
$k^{W}$ áš 'be brown'
$\operatorname{sok}^{W}$ in $^{\mathrm{y}}{ }^{\text {'cup' }}$
$k^{W} r^{\circ}$ ák 'old man'
$k^{\text {Wás }}$ 'that which was said'
/q/ is a slightly aspirated dorsopostvelar stop, fully released in all positions:
qá•q 'crow'
cáqṣ i 'I jump'
qyáw 'be cool'
ruqíw 'he chokes (someone)'
$/ q^{W} /$ is a slightly aspirated labialized dorsopostvelar stop:
$q^{W}$ áqš 'horse'
sq'áy 'blackbird'
$q^{W}$ yáw 'sparkle, siline'
${ }_{\mathrm{I}} \mathrm{Y}_{\mathrm{q}} \mathrm{w}$ áq 'be bitter'
$/ \mathrm{F} /$ is a glottal stop. It freely varies with nothing in initial position. (/?/ will be written only when it occurs in noninitial position.):

$$
\begin{aligned}
& \text { ?í. or í 'wood' } \\
& \text { ?a?á or a?á 'saguaro' } \\
& \text { lu?áy 'he plays' } \\
& \text { x?á 'cottonwood tree' }
\end{aligned}
$$

```
    /s/ is an apicodental rill spirant:
        xasán}\mp@subsup{}{}{Y
    spáp 'be four'
    yás 'seed'
    xsúrr 'be cold'
    /s/ is an apicopostalveolar rill spirant:
    sukwir 'he winds'
    şráp 'be five'
    xpṣá. 'I blow (with my mouth)'
    lmíṣ 'fur'
    /š/ is a laminoprepalatal groove spirant:
    sítt 'be one'
    šmá 'I sleep'
    xpšíw 'leaf out'
    kusš 'be tall'
/x/ is a dorsovelar slit spirant with very little
```

friction:

```
    xá 'water'
    pxká' 'be seven'
    xcá•s 'corn'
    rxúp 'tin can'
    umáx 'he intends to eat'
/ W}/\mathrm{ / is a labialized dorsovelar slit spirant
```

with very little friction:

$$
\begin{aligned}
& \mathrm{x}^{\mathrm{W}} \text { át 'be red' } \\
& \text { pxáy 'be good' } \\
& \text { lx }{ }^{W} \text { acáq 'ghost' } \\
& \mathrm{x}^{\mathrm{w}}{ }_{\mathrm{i}} \text { 'I smell' }
\end{aligned}
$$

## / $\mathbf{I} /$ is an apicoalveolar to apicopostalveolar

voiceless lateral, very slightly spirantized:

$$
\begin{aligned}
& \text { łapá•y 'pillow' }
\end{aligned}
$$

$$
\begin{aligned}
& \text { xłu’ís 'he's stingy' } \\
& \text { sukwiz 'he's noisy' } \\
& / \Psi^{y} / \text { is a laminoprepalatal voiceless lateral, }
\end{aligned}
$$

very slightly spirantized:

$$
\begin{aligned}
& \mathrm{z}^{\mathrm{Y}} \text { áp 'be hot' } \\
& \text { Kuk }{ }^{\text {ín }}{ }^{y} \text { 'I sew' } \\
& z^{y} n^{y} \text { cu•píttx } \text { 'they will lock us in' } \\
& x^{y^{Y}}{ }^{\text {pá }} \text { 'moon, month' } \\
& \text { /1/ is an apicoalveolar to apicopostalveolar voiced }
\end{aligned}
$$

lateral:
líp 'flame up, be in flames'
lxá 'saliva'
plik 'I taste'
šmá•l 'my ear'
$/ 1^{\mathrm{y}} /$ is a laminoprepalatal voiced lateral:
l $^{\text {yáab }}$ ' $I$ lick'
$1^{Y}$ pák ${ }^{\text {b }}$ be light in weight'
$x^{\text {Y }}$ Yát 'be short in length'
mwály 'be soft'
/m/ is a bilabial nasal. Release is commonly
oral before /p/. It is normally unreleased in final position: mapíly 'now'
m?ú•z 'antelope'
şmál 'grass, shrub'
mpár 'I know how'
$z^{\mathrm{y}}$ yú•m 'I think'
/n/ is an apicoalveolar to apicopostalveolar nasal.
Release is oral before /t/. It is fully released in final position:
panák 'I kill hin'
nmák 'I quit'
nṭmá•k 'we quit'
pnáp 'I hide something in my hand'
kxú•n 'young boy before puberty'
$/ \mathrm{n}^{\mathrm{y}} /$ is a laminoprepalatal nasal. Release is
commonly oral before /e/. It is always unreleased in final position/.

$$
\begin{aligned}
& n^{\mathrm{y}} \text { á•k 'east' } \\
& \mathrm{n}^{\mathrm{y}_{\text {wa?á•1 }} \text { 'clothes' }} \\
& x_{n}{ }^{\text {Y }} \text { áz }{ }^{\text {y }} \text { 'tule' } \\
& \text { mapún }{ }^{\text {y }} \text { 'your, you (obj.)' } \\
& \mathrm{n}^{\mathrm{Y}} \text { cá. 'my mother' } \\
& / r / \text { in the speech of middle-aged and older }
\end{aligned}
$$

speakers has two allophones. After /s/ or a nasal before a vowel, as a simple onset, or as the first phoneme in a complex onset, it is an apicopostalveolar retroflex, somewhat grooved, voice spirant. Elsewhere it is an apicoalveolar to apicopostalveolar voiced flap. This allophony applies only to native words. Generally, the flap is the only permissible allophone in Spanish loanwords. For many
younger speakers the spirant and flap are in free variation in the above environments．Some of the younger speakers have the flap exclusively：

> rá•ny y 'ranch'
> ráp 'it hurts; I ache'
> cn $^{\mathrm{y}}$ ár 'yesterday'
> rxúp 'tin can'
> mrí•k 'beans'
> pri•wí• 'be the same, similar'
> prxá•w 'fox'
> şráp 'be five'
／w／is a bilabial semivowel，functioning as a vowel before a consonant or in final position and as a consonant before a vowel：
wá⿱㇒士＇yes＇
cawír＇I stack＇
ṣwí＇I wipe＇
pškwá•kx＇we shall take him back＇
xpšíw＇it puts out leaves＇
pawyá＇he knows him＇
pmsk ${ }^{W}$ ayá•wx＇you will teach them＇
／y／is a laminoprepalatal semivowel，functioning as a vowel before a consonant or in final position and as a consonant before a vowel：
yá•k＇bone＇
payíl＇I carry him on my back＇
syá•＇I sing＇
$n^{\text {Tšyú•壬 }}{ }^{\text {y }}$ 'his tail'
kwáy ${ }^{\text {y }}$ 'under'
makáy 'at some place; somewhere'
k?úy 'I cut hair'
xšúyk 'I whistle'
/d/ is an apicodental voiced stop. It is of very rare occurrence in Spanish Ioanwords:
dú•ls 'candy'
/f/ is a labiodental voiceless spirant. It has
been recorded in one English loanword:
stú•f 'stove'
/v/ for most speakers varies freely between a
bilabial voiced spirant and a labiodental voiced spirant. Older speakers often substitute the bilabial semivowel for this phoneme. /v/ is fairly common in Spanish loanwords:

$$
\begin{aligned}
& \text { aví•x 'bee' } \\
& \text { va•st 'club (of cards)' } \\
& \text { aruví•l 'automobile' } \\
& / a / \text { is an interdental voiced slit spirant. It }
\end{aligned}
$$

has been recorded in a few Spanish loanwords:
spáa 'spade (of cards)'
丸uryá•1 'quarter (money)'
$/ \eta /$ is a dorsovelar voiced nasal. It occurs in a few Spanish loanwords:

$$
\begin{aligned}
& \text { lará•nk 'orange (fruit)' } \\
& \text { dumínk 'Sunday' } \\
& \text { sí•nk (or sí•nku) 'five' }
\end{aligned}
$$

112. The vowels. The vowels are voiced and fairly tense. Vowels of unstressed syllables are somewhat less tense than those of stressed syllables. A short vowel under stress is one mora in length. A long vowel under stress is about two morae. A short vowel in an unstressed syllable is about three-quarters of a mora. A long vowel in an unstressed syllable is about one and one-half morae. (See 113.1 for further description of length.)

The qualities of the vowels are as follows: /i/

1. When long or short, is lower-high, unrounded, and slightly centralized in these environments: a. After an alveolar consonant, $/ \mathrm{x} /$, or $/ \mathrm{q} /$ :
sí 'I drink'
Stíp 'I shoot'
mșí ${ }^{\text {I }}$ 'my thigh'
mát mawqí•r 'a plow'
xír 'I tie'
xí•súr 'winter'
b. Before an alveolar consonant unless preceded by a palatal consonant:

Imís 'fur; be furry'.
spi•r 'shoulder'
cu'pít 'he covers'
2. When short in environments other than the above, is lower-high, unrounded, not centralized: mí 'I cry'

$$
\begin{aligned}
& \text { pin' 'be warm' } \\
& \text { sít 'be one' } \\
& \text { mapil' ' 'now' } \\
& \text { m?íx 'you will say' }
\end{aligned}
$$

3. When long in environments other than the above is high to lower-high, unrounded, not centralized:

$$
\mid u /
$$

1. When long or short, is upper-mid, rounded in these environments:

> a. Before any consonant immediately preceding
a vowel:

$$
\begin{gathered}
\text { u•yá• 'I know' } \\
\text { mšuráy 'he's angry' } \\
\text { mu•n'ý. 'your daughter-in-law' } \\
\text { b. After /s/ or /s/: } \\
n^{y} \text { cpuṣ́ 'his liver' } \\
\text { sú•n' 'rat' } \\
\text { mi•xú 'your nose' } \\
\text { xmxú•k 'be six' } \\
\text { xá• 'I conceal' } \\
\text { 2. When long or short in environments other }
\end{gathered}
$$

$$
\begin{aligned}
& k^{W_{\dot{z}}} \cdot \text { 'cloud' } \\
& \text { sí• 'saddle' } \\
& \text { ši•má• 'it takes root' } \\
& \text { papi•1 'paper' } \\
& \exists^{y} \text { ucíl }^{\prime} \operatorname{tssin}^{y} \text { 'in that place where he } \\
& \text { defecates' }
\end{aligned}
$$

$$
\begin{aligned}
& \text { xtúp 'I jump' } \\
& \text { cwa?ú•r 'chair' } \\
& \text { ukúz' 'he climbs' } \\
& i \bullet c u ́ ~ ' m y ~ s t o m a c h ' ~
\end{aligned}
$$

## /a/

1. When short, is low to higher-low, unrounded in these environments:
a. Before a consonant that immediately pre-
cedes the vowel of a stressed syllable:
pawí• 'I see him'
amán 'airplane'
capáy 'Indian'
b. Before an alveolar consonant unless pre-
ceded by a palatal consonant:
wá 'yes'
$q^{\text {wás }}$ 'be yellow'
mát $\quad$ 'ground, lana'
yưár 'a piece of string'
2. When short, it is higher-low to lower-mid, unrounded, and slightly fronted following a palatal consonant before a non-palatal consonant or in final position following a palatal consonant:
xcáq 'be bad, ugly'
ǧá 'bird'
cáp 'I throw'
¥áp 'be hot'
yás 'seed'
3. When short, it is higher-low to lower-mid, unrounded, and considerably fronted between two palatal consonants:

$$
\begin{aligned}
& \text { xcác 'spine' } \\
& \text { šáy 'be fat' } \\
& 1^{y} \text { cás 'be little' } \\
& \text { xyán }{ }^{y} \text { 'I carry in my arms' } \\
& x^{y} \text { áá }^{y} \text { 'tule' }
\end{aligned}
$$

4. When short in environments other than any of the above, it is higher-low to lower-mid, unrounded, and fully central:

$$
\begin{aligned}
& \text { pám 'I fall' } \\
& \text { máx 'I intend to eat' } \\
& \text { páy 'here' } \\
& \text { wá 'house' } \\
& \text { s?ák 'woman' }
\end{aligned}
$$

5. When long, is upper-low, unrounded, and
slightly fronted in these environments:

$$
\begin{aligned}
& \text { a. After a palatal consonant: } \\
& n^{\mathrm{y}} \mathrm{a}^{\prime} \cdot \mathrm{c} \text { 'I' } \\
& \mathrm{I}^{\mathrm{y}} \mathrm{a}^{\prime} \cdot \mathrm{k} \text { 'I lick' } \\
& \text { mn }^{\text {y }} \text { cá. 'your mother' } \\
& \text { b. Before /y/ after any consonant: } \\
& \text { mi•yá•y 'your heart' } \\
& \text { kik }{ }^{\mathrm{w}} \mathrm{a}^{\prime} \cdot y \text { 'cow, cattle, beef' } \\
& \text { wé má•y 'on top of the house' }
\end{aligned}
$$

6. When long in other environments, is low to upper-low, unrounded, and fully central:

> mapás 'you men'
má•m 'now'
xsá•w 'cotton'
lá•x 'no'
sá. 'he goes along there'
/e/ is mid to upper-mid, unrounded, and always
long. It occurs only in loanwords from Spanish and English. Many speakers substitute the native /i/ for this vowel:
lmé•s 'table'
ré• 'king'
lé•c 'milk'
kév 'cake'
/o/ is a lower-mid to upper-low, back, rounded vowel which occurs only as the interjection ó•, an expression of frustration or disappointment.
113. Prosodic features.
113.1. Vowel length. In normal speech vowels are short or long, ranging from three-quarters of a mora to one mora for short vowels and one and one-half morae to two morae for long vowels. A vowel in an unstressed syllable is characteristically shorter than one in a stressed syllable. A short vowel is unmarked. A long vowel is indicated by a raised dot: $/ \cdot /$. A vowel or semivowel in a stressed syllable is lengthened to three or four morae to indicate emphasis, augmentation, or diminution. An extra long vowel or vowel
nucleus is marked by a colon: /:/. A long vowel in a stressed syllable can be shortened to about three-quarters of a mora to denote diminution.

Associated with the lengthening of a long or short vowel is the raising of the pitch level to 4 or 5 (see 1l3.4) and often a pharyngeal stricture. Pharyngeal stricture, but ordinarily not a higher pitch level, accompanies a shortening of a vowel. Emphatic stress (113.3) often occurs on the syllable with the modified vowel.

1. Lengthening of the vowel:
ku: $\mathfrak{z}^{y}$ 'be extremely long' (kúi $\begin{aligned} & y \\ & y\end{aligned}$ 'be long') ptáy: xan ${ }^{\text {y }}$ 'be extremely large' (ptáy 'be large'; -xan ${ }^{y}$ 'very')
$p_{n}{ }^{y}$ á:c 'afterwards he went along here, on and on and on' ( $\mathrm{pn}^{\mathrm{y}}{ }^{\mathrm{a}} \cdot \mathrm{c}$ 'afterwards he went along here')
in ${ }^{\mathrm{y}} \mathrm{a}^{\prime \prime} \mathrm{mxan}^{\mathrm{y}}$ 'an extremely large amount' (in ${ }^{\mathrm{y}}{ }^{\mathrm{a} \cdot m}$ 'be very much')
2. Shortening of the vowel:
láxxan ${ }^{\text {y }}$ 'not in the least, not at all' (lá•x 'no, not') mám 'right now, exactly at that moment' (má•m 'now, then')
113.2. Juncture. The analysis of the syllabic structure presented below (130) requires that the only necessary junctural phenomenon be one which will identify the beginning of a macrosegment (defined in 130). Such juncture
is indicated either by a space between macrosegments which contain stressed syllables or by the juxtaposition of macrosegments with no intervening space. Included in the latter are reduplicated verbs and compound nouns. Unstressed auxiliary verbs and a few verbal nouns derived from them are not preceded by juncture, but are, for syntactic reasons, written with a preceding space:

$$
\begin{aligned}
& \text { pcawín }{ }^{Y} \text { wín }{ }^{y} \text { 'I shake him' } \\
& \text { láplá•p 'be flat' } \\
& \text { wášká 'tent' } \\
& \text { xákṣ̊íz 'ocean' } \\
& k^{W} \text { árk }{ }^{W} \text { ár ac 'he talks' } \\
& \text { upá } k^{W_{0}} \text { as } \text { 'he did as he was told to do' } \\
& \text { prác yus 'I'm standing' }
\end{aligned}
$$

113.3. Stress. It is necessary to recognize three phonemic degrees of stress. Syllables are strongly stressed /'//, stressed /'/, or unstressed (unmarked). A macrosegment contains ordinarily only one stressed syllable. A stressed or strongly stressed syllable can only be one which contains a vowel. An unstressed syllable need not contain a vowel. Strong stress is always accompanied by phonetic pitch level 4 or 5 and often by pharyngeal stricture and modification of the length of the vowel (113.1).

The rhythm of Cocopa utterances is stress-timed. That is, the length of time required for an utterance is determined by the number of stressed syllables. Thus the timing of the third sentence below, which consists of four stressed
monosyllables, is approximately the same as that of the first sentence with four stressed syllables plus three unstressed syllables, and also that of the second sentence with four stressed syllables and six unstressed syllables. (A syllable is defined in 130.) The fourth sentence below illustrates a macrosegment with strong stress:
 day.'
 trees over there.'

 really tall cottonwood tree standing there.'

An utterance has almost completely level stress when the stressed syllables have the same pitch level, e.g., in the second and third sentences above. There are, however, two phonetic degrees of stress /// which correlate with different co-occurring pitch levels in an utterance. A phonetic primary stress occurs on the stressed syllables with the higher or highest pitch level. A phonetic secondary stress occurs on stressed syllables with the lower or lowest pitch level. In a macrosegment which contains only one stressed syllable with more than one unstressed syllable preceding it, the first unstressed syllable has a slightly stronger stress than the following unstressed syllables.
113.4. Pitch level. There are three phonemic pitch levels: / $/$ /, /2/, and /3/, and two higher phonetic pitch levels, 4 and 5: Pitch levels 4 and 5 always accompany strong stress /"/ (113.3). An unstressed syllable ordinarily has pitch level / 3 / only when it is the final syllable of an utterance.

A sequence, or construction, of pitch levels of an utterance plus the terminal contour constitutes its melody. An utterance can have more than one melody. There are, however, certain standard, or characteristic, melodies for the various syntactic structures (840).

In the following examples the pitch level is indicated for stressed and unstressed syllables. (See 113.3 for other examples.):

1213

1. apác u?ám 'The man didit.'
2. ${ }^{\text {IUSím }}{ }^{2}$ 1áx $\times 1$ d don't drink.'


$13 \quad 2 \quad 3$
3. kmyúk má•x ic ' 'How are you going?'


113.5. Terminal contour. There are three terminal contours: $/ 1 /, 1 / /$, and $/ 1 / . / 1 /$ indicates that the
utterance has not been completed. / // and / $\uparrow$ / ordinarily occur only at the end of an utterance. When / / / occurs between macrosegments within an utterance it appears to denote emphasis, e.g.,

$$
\begin{aligned}
& \text { (The concept which is emphasized here is } \\
& \text { 'my giving'.) } \\
& / \$ / \text { denotes a slight fall in pitch. / / / denotes a }
\end{aligned}
$$ slight rise in pitch. Both are accompanied by a decrease in the force of articulation. /1/maintains the same pitch (or at the most, there is a very slight fall) and the same force of articulation throughout the syllable.

Examples of terminal contours are given in ll3.3 and 113.4. The combination of pitch level and terminal contour to form a melody is described in 840.
120. Distribution. Conscnants. Except for the restrictions given below there are no limitations in the distribution of consonants, either in relation to one another or to vowels:

1. /w/ and /y/ must either precede or follow a vowel.
2. $/ 0 /$ when it is not in free variation with nothing in initial position must precede the vowel of the stressed syllable.
3. Contiguous laterals do not occur in a macrosegment which contains only one stressed syllable.
4. /r/ can not be contiguous to another / $/$ / in a macrosegment which contains only one stressed syllable.
5. Contiguous sibilants do not ordinarily occur in normal speech. (See 227.)
6. Vowels. There are no restrictions on the occurrence of vowels in relation to consonants. An unstressed syllable containing a vowel followed by a coda prior to the stresses syllable occurs, but is rare:

$$
k^{w_{1}} y_{a n}{ }^{y} \text { cás } \text { 'the little one' }
$$

Short /i/ is relatively rare in unstressed syllables: kik ${ }^{W}$ á•y 'cow, cattle, beef' ṣi?áw 'my granddaughter'
A semivowel rarely functions as a vowel except in a stressed syllable. The possible combinations of a vowel plus a semivowel are as follows:

1. /iw/
xpšíw 'it puts out leaves'
ríw ic 'it extends'
mcuwíw 'they see each other'
$\mathrm{kn}^{\mathrm{y}}$ yíwsk 'Come! (pl.)'
2. /i•w/
$n^{y_{i}}$ *yú sawíw 'face towel'

3. /uy/
xm?úy 'it can't be seen'
xli"kúy 'it's exciting'
4. $/ u \cdot y /$
xšúcyk 'I whistle'
$\mathrm{n}^{\text {iz }} \cdot \mathrm{yu}$ xmPú•y 'he's blind'
5. /ay/
kwáy ${ }^{\text {y }}$ 'under'
šáy 'be fat, greasy'
6. $/ a \cdot y /$

まapá•y 'pillow'
laká‘ym 'to town'
mi•yá•y 'your heart'
7. /aw/ (this sequence is fairly common in unstressed syllables.) kyaráwí 'Quick! Be fast!' pu?áw 'he walks' pawyá. 'he knows him'
8. /a•w/
pmsk ${ }^{W}$ ayá•wx 'you will teach them, him' p?á•w 'we walk' smís $\mathrm{z}^{\mathrm{y}} \mathrm{kwá} \mathrm{\cdot}$ w 'ice box'

Sequences of two vowels can occur in a stressed syllable. The second vowel must be $/ a /$. The first vowel is the peak of the syllable. The following combinations occur:

1. /ia/
maPía 'Did you do it?'
mṣía 'Did you drink it?'
2. $/ i \cdot a /$
$n^{\text {y }}$ mwí•a ${ }^{\text {Do you see me?' }}$
3. $/ a \cdot a /$
pmu•yá•a 'Do you know him?'
4. /ua/
yú ac 'it is, he says' (These forms are
written with an intervening space for syntactic reasons.)
/u•a/ would also be expected, but is not recorded. 130. Syllabic structure. A macrosegment in Cocopa is defined as a stretch of speech in a given utterance that can be spoken between pauses. That is, a macrosegment is itself a potential utterance. Thus an utterance consists of one or more macrosegments. A macrosegment contains one or more syllables, at least one of which is stressed with a vowel as the peak. Unstressed syllables containing a vowel can occur in the macrosegment both before and after the stressed syllable. A syllable can be entirely consonantal and consist of an onset only or of an onset and a coda with a predictable 'murmur' vowel following the onset as phonetic peak. Such consonantal syllables can occur both before and after the stressed syllable. The location of syllable boundaries in a sequence of consonants is determined by the number and quality of the consonants and by their position in relation to the beginning of the macrosegment and to the stressed syllable.
130.1. Onsets. Three types of onsets are recognized: initial, medial, and final. An initial onset begins a macrosegment. A final onset occurs before a phonemic vowel. A medial onset is one which follows an initial onset or another medial onset and which does not precede a vowel.

Onsets are either simple or complex. A simple onset consists of a single consonant. Any consonant can be a simple onset. An onset, whether simple or complex, which begins
a macrosegment and also precedes a vowel is at the same time both an initial and a final onset.
130.1.1. Complex initial-final onset to a stressed syllable. A complex initial-final onset to a stressed syllable can consist of:

1. Any sequence of obstruents, provided that:
a. A voiceless lateral is initial in the sequence.
b. / / / or a labiovelar immediately precedes the vowel.
c. Stops (excluding /p/) are not contiguous.
2. A voiceless lateral followed by a spirant and/or a semiconsonant.
3. A voiceless lateral followed by a semivowel.
4. A stop followed by /r/ before a long vowel. The following examples illustrate a complex initialfinal onset to a stressed syllable:
xsá•m 'be almost'
Šqáw 'green heron'
šmá 'I sleep'
cšá•c 'I plant'
Z Ymár $^{\prime}$ 'I light a fire'
k?úy 'I cut hair'
$z^{\mathrm{Y}} \mathrm{q}^{\mathrm{W}} \mathrm{a} q$ 'be bitter' $^{\prime}$
kšúpk ic 'i swim under water'
$z^{\mathrm{Y}}$ yúa.m 'I think'
xpsíw 'be blue, green'

$$
\begin{aligned}
& \text { psk }{ }^{W} \text { á 'I gossip about him' } \\
& \text { sxṭú 'I spit' } \\
& \text { spxúck 'be eight' } \\
& z^{\mathrm{y}} \mathrm{ksǐ} \text { s an unidentified plant species } \\
& z^{y}{ }^{\text {smíx }} \text { 'I intend to lay something big in' } \\
& \text { psçád 'w have them as daughters' } \\
& \text { scx?ák 'I hang up several (things)' } \\
& \text { šc } \text { ín }^{\text {n }} \text { Y 'yellowshafted flicker' } \\
& \text { tré•n 'train' } \\
& \text { krúes 'cross' }
\end{aligned}
$$

130.1.2. Complex initial-final onset to an unstressed syllable. A complex initial-final onset to an unstressed syllable consists of :

1. The same sequence of obstruents, with the exclusion of $/ \mathrm{P} /$, permitted for a stressed syllable.
2. These same permitted sequences of obstruents followed by a semivowel.
3. A semiconsonant followed by a semivowel.
4. A spirant and/or a stop followed by $/ r /$ before a long vowel.

The following examples illustrate a complex initialfinal onset to an unstressed syliable:

$$
\begin{aligned}
& \text { ksca?árk 'Dry!' } \\
& \text { pskuwí•sc 'he was chasing them' } \\
& \text { I}^{y} \text { xpucú•n }{ }^{\text {y }} \text { 'church' } \\
& \text { scxu?á•k 'she hangs up several (things)' } \\
& \text { pskwayá•w 'I teach him' }
\end{aligned}
$$

```
Z Ytuyrím 'he faces towards here'
scumárpca 'they slept (separately)'
kyaráwxan}\mp@subsup{}{}{\mathrm{ y }
mwayá•c 'you are around'
cwa?úrr 'chair'
sri•wí• 'I compare, cuntrast'
pri*wí. 'be the same'
skru>wí. 'be in the middle'
```

130.1.3. Complex initial, medial, and final onsets. The sequences of consonants permitted in the above two paragraphs are nonsyllabic. In sequences of consonants other than these there occurs one or more syllables (seldom more than three). Such syllables have no distinctive peak. They can consist entirely of onsets, either simple or complex. Or they can consist of unsets followed by codas.

Long strings of consonants are theoretically possible. However, a sequence of consonants with no intervening vowel seldom consists of more than five consonants. Four or five are about the maximum number recorded for a complext initialfinal onset. A medial onset is seldom complex. A complex final onset, that is, one ch presupposes a following onset before the vowel, seldom contains more than two consonants, but theoretically can consist of any of the obstruents permitted for initial-final onsets.
130.2. Codas. A coda is a consonant or a sequence of consonants which terminates a syllable. A coda can be simple or complex. Only simple codas are possible prior
to the stressed syllable. They ordinarily can be only either a semiconsonant, stop, or voiceless lateral. Possible codas in sequences following the stressed syllable are described in 132.2.
131. Quality of phonetic vowel. An anaptyctic phonetic vowel follows the onset of a syllable with no phonemic vowel. The quality of this indistinct 'murmur' vowel is determined by the quality of the preceding onset and/or that of a following onset or coda. This vowel is voiceless between voiceless consonants and voiced adjoining a voiced consonant. If an anaptyctic vowel occurs between two consonants, it has the following qualities and environments:

1. Lower-high back rounded
a. Before /w/.
b. Before a labiovelar.
2. Lower-high front unrounded
a. After a palatal or dental consonant before any consonant except /w/ or a labiovelar.
b. After a labial consonant before a palatal or dental consoriant.
3. Lower-high mid unrounded
a. After an alveolar consonant before any consonant except /w/ or a labiovelar.
b. After / $\mathrm{x} /$ or / $\mathrm{q} / \mathrm{before}$ a palatai consonant.
c. Before un alveolar consonant after any consonant except a palatal or dental consonant.
4. Lower-high mid, freely alternating with front, unrounded
a. After /k/ before a palatal consonant. (/k/ is velar if the anaptyctic vowel is mid and is prevelar if it is front.)
5. Central mid unrounded
a. In all other environments than the above (viz., combinations of a labial, velar, or postvelar).

The quality of the phonetic anaptyctic vowel varies according to its environment in a manner fairly similar to the allophony of phonemic vowels in their environment (112). The quality of a vowel in a given environment is much the same, whether it is phonetic or phonemic. Therefore, in the examples in the section on syllable boundary anaptyctic vowels are equated with one of the three phonemic vowels as follows:

1. /i/
a. Lower-high front unrounded (see 2 and 4 above).
b. Lower-high mid unrounded (see 3 and 4 above).
2. $/ u /$
a. Lower-high back rounded (see 1 above).
3. $/ a /$
a. Central mid unrounded (see 5 above).
4. Syllable boundary. In the examples which follow a hyphen indicates syllable boundaries. Anaptyctic vowels are superposed.
132.1. In positions prior to the stressed syllable. In a sequence of consonants prior to the stressed syllable, a boundary occurs:
5. After the first noninitial semiconsonant or voiceless lateral which immediately precedes the final onset of the sequence. The semiconsonant or voiceless lateral is coda to the initial onset and together they constitute a syllable:

$$
\begin{aligned}
& s^{i}{ }^{i} \text {-wáp } \quad \text { 'he dreams' } \\
& x^{\mathrm{a}} \mathrm{I}^{\mathrm{y}} \text {-วá• 'cottontail' } \\
& s^{i}{ }^{\text {n}} \text {-ొáw } \quad \text { newborn calf }{ }^{\prime} \\
& \mathrm{p}^{\mathrm{i}} \mathrm{z}^{\mathrm{y}} \text {-mín}{ }^{\mathrm{y}} \text { 'I singe' } \\
& p^{i} n \text {-mák 'I leave him' } \\
& \text { so } x^{2} \text { m-pá• 'yellowjacket' } \\
& \mathrm{Z}^{\mathrm{y}} \mathrm{p}^{\mathrm{a}} \mathrm{~m} \text {-wák } \text { 'you are turide him' } \\
& \mathrm{p}^{\mathrm{a} m-s k^{W}}{ }^{\mathrm{a}} \cdot \mathrm{k} \text { 'you are to ask him for it' } \\
& \text { 2. After a medial semiconsonant or voiceless }
\end{aligned}
$$

lateral preceded by any consonant which is not part of the initial onset. This semiconsonant or voiceless lateral is always a coda. Such a sequence contains two syllables whose boundary cannot clearly be distinguished: the consonant preceding the semiconsonant or voiceless lateral functions as coda tu the initial onset as well as onset to the semiconsonant or voiceless lateral. However, since onsets can occur without codas, but codas cannot occur without onsets, a syllable boundary is arbitrarily made:
3. Before the first consonant which is not part
of, or coda to, the initial onset. The following examples illustrate both 2 and 3 :

$$
\begin{aligned}
& p^{a}-m^{i} n-t^{i}-m a \cdot k \quad \text { 'we abandon them' } \\
& \text { ind }^{y i}-n^{v i} m \text {-ṭa-?ámk 'you lay it down in' } \\
& n^{y i}-m^{\frac{y}{i}} n^{y}-k^{w} \text { áys 'we are your mother's older }
\end{aligned}
$$

brothers'

$$
n^{y i}-z^{y i} m-w a-y a \cdot c ~ ' y o u ~ a r e ~ a r o u n d ~ i n ~ i t ' ~
$$

$$
m^{j}-c^{j} m-p^{a}-k a ́ \cdot w c \quad \text { 'you meet each other' }
$$

$$
m^{i} n^{y}-x^{a} m-n^{y} \text { áw 'you put on shoes' }
$$

$$
\mathrm{m}^{2}-\mathrm{p}^{\mathrm{i}} \mathrm{I}^{\mathrm{y}} \text {-mák } \text { 'you roast it' }
$$

$$
p^{a}-m^{i} \lambda^{Y}-q a ́ c \quad \text { 'you tickle him' }
$$

$$
m^{a}-p^{i} x-w i ́ ~ ' y o u ~ s o u n d ~ l i k e ' ~
$$

$$
m^{a}-\operatorname{sp}^{i} 1 \text {-xáy 'you wet your lips' }
$$

When two (or three, if the third syllable oontains a vowel) unstressed syllables precede the stressed syllable and each contains a potential coda and medial onset, there can be a non-phonemic alternation between what consitutes the coda and what constitutes the onset. For example:

$$
\begin{aligned}
& n^{y i_{m}} n^{y i}-k^{\mathrm{W}} \text { áys } \\
& \text { brothers' } \\
& n^{y i_{z}}{ }^{\text {y }} \text {-mwa-yá•c are your mother's older } \\
& \text { 'you are around in it' }
\end{aligned}
$$

are as acceptable with this syllable division as with that presented above. Note that the latter form has either three or four syllables according to the location of the syllable boundary. This alternation apparently occurs only among semiconsonants, voiceless lateral, and stops (see 6 below). It does not take place, however, if the semiconsonant /r/ is
involved, at least when $/ \mathrm{r} /$ is preceded by a lateral. Alternate syllable boundaries are not possible for the following:

$$
\begin{aligned}
& \mathrm{n}^{\mathrm{yi}} \mathrm{~m}_{\mathrm{m}}{ }^{\mathrm{yi}}{ }_{\mathrm{r}} \text {-ొák } \text { 'you fool me' } \\
& n^{\text {yi }}-z^{y i} r \text {-Pák }{ }^{\text {'I }} \text { fool you' }
\end{aligned}
$$

4. After an initial semiconsonant. An immediately
following semiconsonant or voiceless lateral which aues not precede another semiconsonant or voiceless lateral or a vowel functions as coda to the initial semiconsonant. If this is not the situation, the initial semiconsonant has no coda. (This is the normal situation. See 3 above for possible alternation of the boundary.):

$$
\begin{aligned}
& m^{a}-k^{i}-n^{y} a^{2} \cdot p \text { 'you relate' } \\
& \mathrm{m}^{\mathrm{a}} \text {-wál }{ }^{y} \text { 'be soft' } \\
& \mathrm{m}^{a} \mathrm{~m}-\mathrm{c}^{i}-\mathrm{k}^{\mathrm{u}}-\text { wá } \cdot \mathrm{p} \text { 'you are going to look for } \\
& \text { a medicine man' } \\
& m^{a}-k^{i} \Xi^{y}-k u \mathfrak{Z}^{y} \quad \text { you peer over' } \\
& \mathrm{m}^{\text {a }} \text {-mák 'you are to eat' } \\
& n^{i} \text {-mák 'I quit' } \\
& \mathrm{m}^{\text {i}} \text {-šcúk 'you are to take' } \\
& r^{i}-x u ́ p \text { 'tin can' } \\
& 1^{i}-x^{w} a-c a ́ q \text { 'ghost' } \\
& ]^{\text {yi}} \text {-pak } \text { 'be light in weight' } \\
& i^{i} n^{y} \text {-mu-xáym } ' \text { she didn't like it' }
\end{aligned}
$$

5. After an initial obstruent which does not combine with a following consonant to form a complex onset:

$$
\begin{aligned}
& k^{a}-p^{2} a \cdot k \quad \text { 'Stand:' } \\
& p^{a}-k^{i}-y a \cdot k \quad \text { Lead him!' }
\end{aligned}
$$

$$
\begin{aligned}
& t_{0}^{i}-t ? a ́ \cdot p \text { 'I turn something upside down' } \\
& k^{i} \text {-cxáṣk 'Scrub! Whittle!' } \\
& p^{a}-q^{i}-1 a-s ̌ a ́ w ~ ' h e ~ c l e a n e d ~ h i m ' ~ \\
& p^{i}-c x^{a}-m u-k a ́ p \text { 'he embraced her' } \\
& t^{i}-m a \cdot y \text { 'waves of the ocean' } \\
& c^{i}-n^{y} \text { ám 'dark' } \\
& p^{i}-l i k k \text { 'I taste' } \\
& x^{i}-r u-p a ́ y ~ ' h e ~ i s ~ n e a r ' ~ \\
& \mathrm{~s}^{i}-y a ́ \cdot w \text { 'we were there' } \\
& x^{u} \text {-wák 'be two' } \\
& s^{u}-w a ́-m^{i} z^{y} \quad \text { 'all of them' }
\end{aligned}
$$

6. After a medial obstruent which does not combine with a following consonant to form a complex onset. When this is a stop before a nonidentical stop, it is coda to a preceding stop or semiconsonant. It is otherwise an onset. A medial spirant which does not form a complex onset with the following consonant is a coda. A medial voiceless lateral is always a cods:

$$
\begin{aligned}
& m^{a}-k^{i}-n^{Y} a^{\prime} \cdot p \quad \text { 'you relate' } \\
& \mathrm{Z}^{\mathrm{yi}} \mathrm{p} \text {-cíkp 'it sticks to it (as glue)' } \\
& k^{i} t-p a ́ p k \quad ' B o w ~ y o u r ~ h e a d: ' ~ \\
& 1^{i} k-t ? i ́ m ~ ' I ' m ~ n o t ~ d o i n g ~ a n y t h i n g ' ~ \\
& m^{\dot{j}} t-p a ́ p \text { 'you bowed your head' } \\
& m^{i} c-k u-w a ́ p \text { 'he looks for a medicine man' } \\
& p^{i} \Psi^{\mathrm{y}} \text {-má } \quad \text { done, cooked' } \\
& m^{i} s \text {-yá } \quad \text { 'you sing' }
\end{aligned}
$$

$$
\begin{aligned}
& p^{i}{ }_{s}-n^{Y} u-p i ́ s{ }^{\prime} \text { she casts a spell on him' } \\
& m^{i}-t^{i} t-2 a ́ p\left(a l s o m^{i}-t^{i}-t ? a ́ P p\right) \text { 'you turn up- } \\
& \text { side down' } \\
& n^{y i}-x^{\mathrm{a}}-\mathrm{mím} \quad ' w e ~ a r r i v e '
\end{aligned}
$$

The medial obstruent may be part of an initial complex onset:

$$
\begin{aligned}
& \text { pšk }^{u}-w a ́=k x \text { 'we intend to return him' } \\
& \text { sk } k^{i}-n^{y} \text { áp 'we talk, gossip' }
\end{aligned}
$$

A medial stop before a medial semiconsonant alternates betweer a coda and an onset. The semiconsonant is coda if the stop is onset:

$$
m^{i} c-m^{i}-y a ́ w ~ o r ~ m^{i}-c^{i} m-y a ́ w ~ ' y o u ~ a r e ~ m a r r i e d ~ t o ~
$$ each other'

7. After a vowel or semivowel of an unstressed syllable before a single consonant preceding a vowel:

$$
\begin{aligned}
& \mathrm{n}_{\mathrm{i}} \text {--yáz }^{\mathrm{y}} \text { 'into, in his mouth' } \\
& \text { si-pá 'creator' } \\
& \mathrm{k}^{\mathrm{w}} \text { a-sít 'the same' } \\
& \text { u-cíty 'he intends to defecate' } \\
& \text { aw-cák 'he peels the skin off' }
\end{aligned}
$$

8. After the first of two (more than two are not recorded) consonants betwen vowels. The first consonant is ordinarily a coda, but if the two consonants are a potential complex onset, the syllable boundary can be either before or after the first consonant:

$$
\begin{aligned}
& k^{w i}-1^{Y} a n^{y} \text {-cás 'the one who is little' } \\
& \text { xun-cáq 'he is an ugly little one' }
\end{aligned}
$$

și-xká• or six-ká• 'my granddaughter'
132.2. In positions following the stressed syllable or the vowel of the stressed syllable. A macrosegment can end with a stressed or unstressed syllable. Usually not more than three unstressed syllables follow the stressed syllable. An unstressed syllable in this position may contain a vowel or it may be entirely consonantal.

A stressed syllable ending a macrosegment has as its coda one of the following:

1. Any single consonant except / / / or a labiovelar: $x^{2} m-x u \cdot k$ 'be six' ka.-rít 'wagon' mwa-már 'you irrigate' ṣu-kán 'he escapes'
2. A semiconsonant followed by a stop or a spirant, or by a spirant and a stop. (A coda consisting of semiconsonant, stop, and spirant is no doubt possible, but is not recorded.):

$$
\begin{aligned}
& \text { kšk }{ }^{W} \text { á•Ik 'Peel:' } \\
& \text { xa-sán }{ }^{y_{c}} \text { 'young girl before puberty (subj.)' } \\
& \text { a-yúmp 'I change course' } \\
& \text { ku--kán }{ }^{y_{k}} \text { 'Break (in two):' } \\
& m^{i}-c^{i} n^{y}-m i \cdot I p \text { 'we could scarcely afford it' } \\
& \text { šk }{ }^{W}{ }^{\text {én }} \text { Is } \text { 'we peel' } \\
& \text { 王 y yú•ms 'we think' } \\
& n^{\mathrm{Y}} \mathrm{i}^{\prime} \text {--sa-máns 'we started from there' } \\
& \text { ca-pín' }{ }^{y} \text { 'I will warm (it)' }
\end{aligned}
$$

kxí•rsk 'You (pl.) tie:'
ku•-kán ${ }^{\mathrm{y}}$ sk $\quad$ You ( pl. ) break (in two):'
3. An obstruent followed by a stop or a spirant, or by a spirant and a stop. Contiguous stops must not be identical:
(only $/ \mathrm{I}^{\mathrm{y}} /$ is recorded):

A consonant following the vowel nucleus of a stressed syllable is both coda to the preceding vowel nucleus and onset to an immediately following vowel, semiconsonant, or voiceless lateral (except when the consonant is /t/ or $/ \mathrm{n} /$; see 4 above) which ends the macrosegment. In such cases the syllable boundary is indistinct. The boundary
is likewise indistinct between unstressed syllables.
In the examples given below the syllable boundary is arbitrarily marked before the consonant when it is thus both coda and onset.

A coda to a stressed syllable, unless it consists of homorganic semiconsonant and stop, is always simple before a following unstressed syllable. The consonant following this simple coda is onset to the unstressed syllable. A complex onset has not been recorded in any position following the stressed syllable. The coda to an unstressed syllable can be either simple or complex. If simple, it can be any consonant except/p/ or a labiovelar. A complex coda is not at all common. $/ \mathrm{I}^{\mathrm{y}} /$, however, which is restricted in its occurrence in a complex coda to a stressed syllable (see 4 above), can here follow other consonants than /t/ or $/ \mathrm{n} /$ :

$$
\begin{aligned}
& \mathrm{n}^{\mathrm{yi}}-\mathrm{sk}^{\mathrm{W}} \mathrm{a}^{\prime} \cdot \mathrm{n}^{\mathrm{y}}-\mathrm{x}^{\mathrm{a}} \mathrm{~m} \text { 'I also intend to ask you } \\
& \text { for something' }
\end{aligned}
$$ yúmp-xan ${ }^{\text {y }}$ 'be very easy'

- $k^{a} m-y u u^{-x} x^{i}{ }^{y}$ 'I hope that somehow you will'
 intend to eat'
$n^{\text {yi}}{ }^{\text {-riss-ya }}$ 'I say to you again' $k x^{w}{ }^{W}$-múk-pi-ca 'these three (people)' $m^{i}-s ̌ u-s ̌ i ́ \cdot 1-k^{a} m \quad$ if you don't know' $k^{a}-$ par $^{r}-x^{y^{2}} y^{y}$ 'in the very last one' a-pá-pic 'this man (subj.)'
 ma-pui-ca 'and you?'

When a phoneme or a sequence of phonemes which denotes a unit of meaning is in immediate contact with another phoneme or sequence of phonemes which also has meaning, the two phonemes or the initial and final phonemes of the sequence of phonemes are susceptible to modification. The result of this contact may be the coalescence of the two phonemes into one phoneme phonemically similar to both phonemes; or it may result in the modification of one or both of the phonemes to another or others phonemically similar. Certain modifications are mandatory and result to some extent from the manner of analysis. Others depend upon the tempo of speech or upon idiolectal preferences. The phonemic analysis of the syllabic structure (130) minimizes the number of morphophonemic statements necessary to account for vowel modification. A few statements in which vowels figure, however, are necessary and all are mandatory.

The consonant modifications, on the other hand, are alternations which may occur in particular environments, but whose actual occurrences are, as a rule, optional or nonpredictable.
210. Vowels
211. /i/ or /i•/ unstressed:

1. Becomes /y/ before any unstressed vowel when /i/ or /i•/ is initial or follows a consonant other than /r/:
i•-umá : yumá 'he dances' (i•má 'I dance') xi•-apúk : xyapúk 'the first one' (xi•púk 'be first')
 name; múz ${ }^{\text {y }}$ 'be named')
2. Disappears before an unstressed vowel following $/ \mathrm{r} /$ :

> pri•-uwí• : pruwí• 'He resembles' (pri•wí• 'be similar to')
> sri•-uwí•: sxwí• 'He compares' (sri•wí•'I compare, contrast')
3. Becomes /y/ following stressed/a/ or /u/: $n^{\mathrm{y}}{ }^{\text {g̣ái }}: \mathrm{n}^{\mathrm{y}}$ ṣáy 'at that place, time' $^{\text {' }}$ wá-i : wáy 'at the house'
šmá-i•x : šmáyx 'I'll sleep again' $n^{y}$ pú-i : $n^{\text {y }}$ púy 'at this place, time'
4. Becomes $/ \because /$ after a preceding stressed $\not / i /:$ șíi•x : sí•x 'I'll drink again'
5. Disappears after a semiconsonant and before a consonant which is not a simple onset to a stressed syllable:
m-ixká• : mxká• 'your daughter's son' m-iskáw : mskáw 'your father's younger brother'
212. /i•/ stressed becomes /i/following /u/: $n^{y} u-i \cdot z^{y}: n^{y_{w i ́ z}^{y}}{ }^{y}$ 'he is dark-colored (e.E., a horse)' ( $n_{i}^{\text {Y }} \cdot \mathrm{I}^{\mathrm{y}}$ 'be black')
213. $/ u /$ or $/ a \cdot /$ unstressed:

1. Becomes /w/ before /a/ or /i/:
u-á• : wá 'he goes' (á. 'I go')
pu-á• : pwá 'he arrives'
cu-aəú•r : cwa?ú•r 'chair' (cu?úr 'he sits on')
 'he sews')
$n^{y_{u-i}^{i} \cdot 1^{y}}:^{\mathrm{y}} \mathrm{y}_{\text {wíl }}{ }^{\mathrm{y}}$ 'he is dark-complexioned' $\left(n^{\mathrm{y}} \mathrm{I}_{\mathrm{i}} \mathrm{Z}^{\mathrm{y}}\right.$ 'be black')
2. Becomes / // after /u/:
cu-umán : cu•mán 'he opens' (cumán 'I open')
Su-upít : Šu•pít 'he closes' (šupít 'I close')
3. And /w/ disappear after a consonant before stressed /i•/ or /a•/:

put intol)
cu-wá•x : cá•x 'he grinds' (owá•x 'I grind')

(i•šwá•z 'I want')
cu-wá•m : cá•m 'he throws (underhand?)'
(cwá•m 'I throw')
(This is the regular morphophonemic change.
There are, however, two known exceptions:
Šwáł 'I paddle', šuwáł 'he paddles' and swá• 'I sow', suwá• 'he sows', in which /uw/ in this environment do not disappear.)
4. /a/becomes / / / after /a/:

> pmwá-a : pmwá• 'You who are sitting, are you ...?'
215. /a// becomes /a/after /u/:
u-É : wá 'he goes'
su-ám : swám 'they are all'
220. Consonants. The following statements regarding the morphophonemic alternation of consonants are variable in the extent of their application. They are applicable, for most speakers at least, in normally articulated speech. Even in what appears to be normally articulated speech the same speaker will on different occasions make use of both alternations in the same environment. This is particularly true regarding the $/ \mathrm{k}^{\mathrm{W}} /-/ \mathrm{k} /$ alternation.
221. /c/ finally becomes / $\mathrm{t} /$ after / $\mathrm{n} / \mathrm{:}$
pšawín-c : pšawínt 'I grabbed, stopped him' umán-c : umánṭ 'he arises, flies'
awpún-c : awpúnt 'he hoes'
222. $/ \mathrm{I}^{\mathrm{y}} /$ plus /l/ become / $\mathrm{I} /$ :
$\mathrm{n}^{\mathrm{y}} \mathrm{z}^{\mathrm{y}}$-1uwám : $\mathrm{n}^{\mathrm{y}}{ }^{\text {zuwám }}$ 'it is not in it' $\mathrm{n}^{\mathrm{y}} \mathrm{Z}^{\mathrm{y}}$-Iuyákm lá•x : $\mathrm{n}^{\mathrm{y}} \mathrm{Zuyákm}$ lá•x 'it does not lie in it'
223. /m/ disappears initially before unstressed /a/. The dropping of $/ \mathrm{m} /$ is known definitely to occur in only two forms: mapúc (also mapún ${ }^{\text {y }}$ ) 'you' and mapíly 'now' and appears to occur only in rapid articulation. It was observed in the speech of several informants. When it was remarked upon, one informant observed that 'it's wrong, only kids do it.'
224. /x/ becomes / $\mathrm{x}^{\mathrm{w}} /$ before /i•/ or /y/fullowing $/ \mathrm{k}^{\mathrm{W}} /$ :
$k^{W}$-xyapuix : $k^{W} x^{W}$ yapúk 'the one who is first' (xi'púk 'be first')
$\mathbf{k}^{\mathrm{W}}-\mathrm{xi} \cdot \mathrm{min}^{\prime} \cdot \mathrm{k}: \mathrm{k}^{\mathrm{W}} \mathrm{x}_{\mathrm{i}}^{\mathrm{i}} \cdot \mathrm{mi} \cdot \mathrm{k}$ 'the one who has become a young man'
225. /kw/

1. Becomes $/ k /$ before any consonant except $/ \mathrm{F} /$, $/ \mathrm{x} / \mathrm{l} / \mathrm{x}^{\mathrm{w}} /$, or $/ \mathrm{y} /$ immediately preceding the vowel of the stressed syllable:
$k^{\mathrm{W}}$-pá•p : kpé•p 'he who bakes'
$k^{W}-z^{\mathrm{Z}}$ áp : $k \mathrm{z}^{\mathrm{Y}}$ áp 'that which is hot; star'
$k^{W}$-cúr : kcúr 'tire, wheel; that which rolls'
$k^{W}$-rár : krár 'the one who works'
$\mathrm{k}^{\mathrm{W}}$-wáspi玉 $^{\mathrm{Y}}$ : kwáspi玉 ${ }^{\mathrm{Y}}$ 'the one who is in this'
but: $k^{W}$ rás 'the one who says, what was said'

$$
k^{W} x^{W} \text { ispic } \text { 'the smell' ( } \mathrm{x}_{\mathrm{i}}^{\mathrm{W}} \text { 'it smelis') }
$$

$k^{W} y a ́ \cdot w$ 'things in a temporary location'
(In very rapid speech $/ \mathrm{k}^{\mathrm{w}}$ / before / / / or / $\mathrm{y} /$ may also become /k/.)
2. Before any consonant not immediately preceding the vowel of the stressed syllable, there is considerable variation in the alternation of $/ \mathrm{k}^{\mathrm{W}} /$ and $/ \mathrm{k} /$, except that before $/ \mathrm{m} /$ and before $/ \mathrm{p} /$ it is always $/ \mathrm{k} /$. In slow speech $/ \mathrm{k}^{\mathrm{W}} /$ may become $/ \mathrm{ku} /$. The following examples illustrate the various possibilities:
the oldest' (mewí ${ }^{\text {y }}$ 'be older, the oldest')
$K^{W}$-pyutá•n : kpyutá•n 'the one who is chief' (pi•tá'n 'be a chief') $k^{W} \mathrm{~W}^{\mathrm{y}}$ axá $\cdot \mathrm{t}$ or $\mathrm{kn}^{\mathrm{y}}$ axá•t or kun ${ }^{\mathrm{Y}}$ axá t ! the one who has a dog, dogs, pets' $\mathbf{k}^{\mathrm{W}}$ yamá•s or kyamá•s or kuyamá•s 'dancer' (i•má 'I dance) $k^{W}$ roák or kr`ák 'old man'
 $\mathrm{k}^{\mathrm{W}}$ sayá•w or ksayá•w 'the one who is a singer' $k^{W}$ spáp or $k s p a ́ p$ 'the four ones' (spáp 'be four')
$\mathbf{k}^{\mathrm{W}}$ Ş?ár or $k \underset{!}{ }{ }^{\text {Pár }}$ 'the one which is dried out'
(The last two forms with $/ \mathrm{k}^{\mathrm{W}} /$ were elicited in very slow speech.)
226. $/ \mathrm{n}^{\mathrm{Y}} /$ becomes $/ \mathrm{m} /$ when coda to an unstressed syllable before or after /p/:
pawác yun ${ }^{\mathrm{Y}}$-pa : pawác yumpa 'I'm here (sitting)'
This change also takes place in normal speecn across word boundaries:

$$
n^{\mathrm{y}} \mathrm{á}^{\prime} \mathrm{p} \mathrm{n}^{\mathrm{y}} \text { cá• }: \mathrm{n}^{\mathrm{y}} \mathrm{a} \cdot \mathrm{p} \text { mcá• 'my mother' }
$$

227. /s/ pius /s/become/s/. This occurs in rapid speech regardless of which sibilant precedes. In normal speech when /s/precedes /s/ each tends to retain its phonemic identity, e.g., kcxá•ṣsk 'You (pl.) whittle!'. These are the only sibilants which are known to come into morphophonemic contact. An example of /s/ preceding/s/is: sxuṭús-şin ${ }^{\mathrm{y}}: \operatorname{sxuṭ́}^{\text {sinin }}{ }^{\mathrm{y}}$ 'that which she has spit there'
228. External sandhi. The present analysis has not preceeded to the point that comprehensive statements can be made dealing with the morphophonemic changes that occur across word boundaries. One change was noted above (226). Some of the statements regarding external changes can be expected to differ from those presented above whicin apply within the word only. For example, the change stated in 227 does not apply in the following, in which there is inserted between the two sibilants an anaptyctic vowel: $\mathrm{n}^{\mathrm{Y}}$ akayús ṣmyúk ... : $\mathrm{n}^{\mathrm{Y}}$ akayús ${ }^{i}$ ṣmýk. . .'Some day when you are there ...'

Insertion of an anaptyctic vowel between words is a common phenomenon in the ordinary flow of speech. The rules for the occurrence and quality of the vowel appear to be the same as those which apply to its insertion within the word (131, 132). The presence of the anaptyctic vowel between words thus alters the status of the first consonant of the second word. For example, it may become a coda and the anaptyctic vowel which follows it when the word is uttered in isolation disappears. This is the case in the Example cited in 226. Two further examples illustrate this:
 gets the money ...'
 going to church, you who are standing?'

The opposite may also occur: a coda may become an onset:

$$
\begin{aligned}
& \text { (šuqám) m?íkám lá•x : m?íkma lá•x 'If you say } \\
& \text { it is not (expensive) ...' }
\end{aligned}
$$

240. Remarks on transcription of data. An attempt has been made to record the data in phonemic, rather than morphophonemic, notation. The phonemic representation of the vowels presents no problems. It is not always easy, however, to determine which of the alternations of consonants is the proper phonemic representation, as, for example in the $/ k^{W} /-/ k /$ alternation. Thus, throughout the analysis there may be variant transcriptions of the same word. In cases of doubt as to the proper notation the one which will not obscure the basic form of the affix or root has been chosen.
241. INTRODUCTION TO THE MORFHOLOGY

A macrosegment has been defined (130) as a stretch of speech in an utterance that may be spoken between pauses. Thus a macrosegment is a free form. For the purpose of describing the phonological units of meaning which comprise it and its relationship to other macrosegments which can occur in an utterance, a macrosegment is considered as equivalent to a word. A word contains a root which is modified by morphological processes. A root is the stressed syllable of a word plus contiguous phonemes or phoneme sequences which necessarily accompany the stressed syllable in order to signify a unit of meaning. A root frequently has the phonological shape: CVC. Other common shapes are: CV; CCV, and CCVC. Of less frequent occurrence are: V, VC, and CCV. Roots of shapes other than these occur, but are rare.

A root is modified by processes which are inflectional or derivational. A root thus modified is a stem. A stem modified by inflectional processes only is a primary stem. A stem modified by derivational and inflectional processes is a secondary stem. Inflectional processes employed are: prefixation, suffixation, compounding, reduplication, and consonantal modification of the root. The process of suffixation is syntactic in relating words to each other or in relating sequences of words.

A root is identified as a noun root or a verb root according to its ability to attach certain affixes restricted to one or the other root, or as an invariable root if it is not modified by any morphological process. A verb root is distinguished as such by its ability to attach, as a primary stem, the verb inflectional suffixes. The ability of a root to attach the intentive suffix $-x$ is an excallent criterion for designating its status as a verb. A noun root is most easily distinguished as such by its inability to attach these suffixes.

Primary and secondary stems are assigned to a wordclass of nouns, verbs, or interjections according to the relationship of one to another in a syntactic sequence. A primary stem modified by derivational processes results in a secondary stem which is a noun derived from a verb or another noun, or is a verb derived from a noun or another verb. A noun can be derived from any verb. Verbs, on the other hand, can be derived from only a small number of nouns.

Nouns are distinguished as nouns proper and pronouns. Pronouns have an overtly marked objective case suffix; nouns do not. The use of the term noun is to be interpreted as including both nouns proper and pronouns. Froriouns are classified according to whether they are: personal, demonstrative, definite, or indefinite. Nouns proper may or may not be possessable. If possessable, they are alienably or inalienably possessed. Nouns are inflected for person, case, and (nouns proper only) plural.

Verbs are classified as essentially active or stative. In a general sense, a stative verb is descriptive of a state or condition; an active berb denotes the performance of an action. This semantic distinction is validated by certain formal characteristics which for the most part serve to distinguish the two classes. An active verb can be derived from any stative verb, and it is in its manner of derivation that a stative verb is formally identified: a stative verb requires the simultaneous affixation of the 'active' prefix a- upon the affixation of a derivational instrumental prefix. Stative verbs are sulugrouped as follows:

Group I. Stative verbs which are not inflected for person without the simultaneous affixation of the prefix a-. This prefix is undoubtedly to be equated with the 'active' prefix a-, in spite of a lack of 'active' semantic denotation in the inflected verb. Most verbs of this group have this common semantic feature: their semantic reference may equally be animate or inanimate.

Group II. Stative verbs which are inflected for person without the affixation of a-. Most verbs of this group have an animate semantic reference.

The distinction of the two types of stative verbs is in greatest evidence in the inflection for first person. The inflection for first person subject and third person inanimate subject is identical for all verbs except those considered as stative group I verbs. The alternative to considering a- a derivative prefix would be to consider it
a first person pronominal prefix. It in effect functions as such. Considering a- as derivative rather than inflective, however, permits the first person for all verbs to be viewed as having no overt marker.

Active verbs are basically transitive or intransitive. A transitive verb is one to which a pronominal object prefix can be attached. An intransitive verb is ont to which a pronominal object prefix can not be attached. The 'object' of a transitive verb can only be animate. An intransitive verb may have either no object or one which is inanimate. An active verb is further classified as personal if it can attach a pronominal subject prefix and thus have an animate reference, or as impersonal if it can not attach a pronominal subject prefix, in which case the reference is inanimate, or more commonly, 'impersonal'. Hence, there are four categories of active verbs: personal transitive, impersonal transitive, personal intransitive, and impersonal intransitive.

It is necessary to assume another class of verbs whose classificatory features are other than those presented above. Auxiliary verbs are those which are formally identified by their ability to attach one or more of the locativetemporal prefixes and which can function syntactically as an auxiliary verb in a verb phrase. With a few exceptions (í 'say' and a?í 'do' may be transitive) auxiliary verbs are personal intransitive. (One intransitive auxiliary (yá• 'happen, occur') functions primarily as an impersonal verb.)

Most interjections are invariable roots. A fow have roots which are basically noun or verb roots. Interjections are subgrouped into exclamations and absolutes.

Some seventy-five percent of all roots are verb roots. Invariable roots comprise not more than one percent. The remainder are noun roots.

As will be described in the section on syntax, the primary requisite of a major sentence is the presence of a verb. The functions of the verb result in a fairly complex and elaborate inflective apparatius.

The verb marks animate subject and/or object by means of pronominal prefixes. The pronominal prefixes are affixed regardless of whether there is present a noun which is the overt subject or object.

The concept of number is not an inherent feature of the verb. The verb can be modified to express a concept of 'more than one', which concept, however, is extended not only to the subject but to the object as well. A plural animate subject is dichotomized into a collective and distributive plural, i.e., whether the subject is considered as acting as a group of individuals, or as individuals acting separately. The plural notion also includes such aspectual concepts as repetitive and continuous action, or repetitive and continuous conditions and states of being. There is considerable overlapping in the correlation betwen the plural concepts and the morphological processes employed in the plural formation. In many instances the plural form of a verb has a potential denotation of two, and occasionally
three, of the above-mentioned concepts, in which case the specific denotation is evident syntactically or is implied in the context of the situation. The plural is by far the most intricate feature of Cocopa grammar. A comprehensive knowledge and intensive study of the language will be required to unravel its intricacies.

Certain notions of position are indicated by means of prefixes several of which can also function as suffixes with the same or a similar denotation. These positional affixes are virtually identical to the case suffixes of the noun.

Similar to, but occupying a different position class than, the positional affixes is a referential prefix which is identical in form to the 'objective' suffix to the pronoun. Its reference is to an unspecified or indefinite object, time, or place. This prefix is obligatory with numerous verbs.

Prefixes which denote location in time or space from a point of reference attach only to auxiliary verbs. These include an aspectual prefix denoting continuous, repetitive, or intermittent action, rather than location.

Two non-referential prefixes, one with definite and the other indefinite denotation, are restricted to three auxiliary verbs. The former may co-occur with a suffix whose simultaneous affixation expresses negation, in which case the definite prefix can attach to any verb.

A variety of semantic notions are expressed by a group of suffixes which occupy several position classes. These notions are: enefactive, imitative, usitative or habitual or repetitive (the denotation of this suffix is not essentially different from one of the plural notions), intentive, desiderative, assertive, emphatic, and perfective-sequential.

Tense is not marked, although there is an intimation of tense in the intentive suffix. The action denoted by a verb with this suffix has not occurred; in this sense it is a sort of future. The suffix more strictly denotes rather an expression of intention by the subject of the verb to perform the action. The action denoted by a verb without the intentive suffix may be either past action or action presently occurring; if it is necessary to make a distinction, it is accomplished syntactically.

Certain of the suffixes, to the noun as well as to the verb, are syntactic in function in addition to being inflective. At least they are identical in form. This analysis treats them as being the same if they occupy the same position class and are not otherwise restricted in their occurrence. Homonymy in affixes and in stems and words is a common pehnomenon in the language. No attempt is made to resolve their identity or distinction on higher levels of abstraction.

Derivational processes are on the whole straightforward. Certain affixes identical in form are used with verbs or nouns. Again the question is moot as to whether they are
to be considered the same or different affixes. The prefix a- is particularly troublesome, and it is not certain what is the best method of accounting for it.

Two features of the derivational process are noteworthy in the manner of its application by verbs and nouns. Verbs are extremely productive in their capacity to derive verbs from other verbs, but are relatively very unproductive in their capacity to derive verbs from nouns. Nouns, on the other hand, are very productive in their ability to be derived from verbs, but are far less productive in their ability to derive other nouns.
400. INFLECTION: THE VERB
410. Pronominal prefixes. The verb is inflected for person by means of prefixes for subject and/or object. Object precedes subject, and may be attached only to a transitive verb. There is no overt marker for inanimate subject or object. The second person prefix is identical for subject or object. The imperative prefix belongs to this paradigm and occurs only as subject prefix and in the same position as second person. The first person subject has no overt marker. The first person form of a verb and the form of a verb whose reference is inanimate subject are often identical. The form of the third person animate subject is determined by the phonological environment before the stressed syllable of the stem. The position of the third person subject prefix is normally immediately before the first phoneme of the root. (See Appendix I)
411. Object prefixes. The object prefixes are:

| $n^{\text {y }}-$ | first person |
| :--- | :--- |
| $m-$ | second person |
| p- | third person |

With no subject prefix they can be attached only to impersonal intransitive verbs:

$$
\begin{aligned}
& n^{y} \text { tkšík 'I hiccough' } \\
& \text { mtksík 'you hiccough' } \\
& \text { pțkšík 'he, she hiccoughs' }
\end{aligned}
$$

$n^{\bigvee} c x$ ?ák 'I snagged (e.g., my clothes on something'
pskmi•rq 'he, she slipped and fell'
(pşkumírq is also possible)
mayúz 'you got a splinter'
412. Subject prefixes. When not preceded by oioject prefixes, the subject prefixes are:

1. First person

No overt marker. Examples are presented accord-
ing to verb class.
Group I stative verbs
ašáy 'I'm fat
mawál ${ }^{\text {Y }}$ 'I'm soft'
ašít 'I'm alone (one)'
Group II stative verbs
ptáy 'I'm big
$p x$ áy 'I'm good
rílk 'I'm rich
xwák 'we are two'
xcáq 'I'm bad, ugly
Active verbs derived from stative verbs
cmawá ${ }^{y}$ 'I soften
cpatáy 'I make big
šakúz ${ }^{\text {y }}$ 'I Iengthen
cxamá• $\mathbf{Z}^{\mathrm{Y}}$ 'I whiten
mi•wár 'I crumble

```
Primary stem intransitive verbs
mán 'I get up'
pat 'I lie down
wí• 'I look, see'
ṣí 'I drink
sk \({ }^{W}\) á 'I swell up
šmá 'I sleep
Secondary stem intransitive verbs
```

cumán 'I open, uncover
suk ${ }^{W}{ }_{\text {íz }}{ }^{\text {y }}$ 'I sew'
sx’ák 'I hang up'
kmáz 'I sharpen, grind'
u•mát 'I powder my face'
pkát 'I head off, take a short-cut'
Auxiliary verbs
wá 'I sit'
yák 'I lie
yí• 'I come'
yú 'I am'
a. 'I go'
wayá• 'I'm around'
pwayá• 'I'm around here'
p?á. 'I stand'
pšuyí ' I come here bringing'
šuyí•x 'I will bring'
spp?áx 'I will stand over there (far away)'
2. Second parson
m- attached immediately before a primary
or secondary stem in the fifth position class (see Appendix I):

> mptáy 'you're big'
> mšakúz' ${ }^{\text {y }}$ 'you lengthen'
> mšmá 'you sleep'
> mu'máł 'you powder your face'
> mwá 'you sit'
> myú 'you are'
> pmwá 'you're sitting here'
> pmwayá• 'you are around here'
> ṣmákx 'you will lie over there'
3. Third person
a- used only with the stem xcaq:
xacáq 'he is bad (Cf. xucáq 'he is ugly')
u- used with stems in which non-initial
/a/ or / u / does not immediately precede the consonant which immediately precedes the vowel of the stressed syllable:
putáy 'he or she is big'
xucáq 'he is ugly'
uríck 'he is rich.
șxu"ák 'he hangs up'
tupáp 'he bows his head'
uwá 'he sits'
wá 'he goes'
suk ${ }^{W}$ á 'he swells up'
myuwár 'he crumbles'
yumá 'he dances'

Sawín 'I stop' has two third person forms: sadewín and suwín. The latter form is preferred.
aw- used with (secondary) stems with $/ \mathrm{u} \cdot /$
immediately before the consonant preceding the vowel of the stressed syllable:
awmáz 'he powders his (own) face'
awpún 'he hoes'
awq ${ }^{\text {waq }}$ 'he tears in two'
-- (lengthened vowel) used in stems with
non-initial /a/ or / $u$ / immediately before the consonant which precedes the vowel of the stressed syllable:
cma'wály 'he softens'
sac.kúz ${ }^{y}$ 'he lengthens.
pa•wá 'he is sitting here'
cu•mán 'he opens'
pwa-yá. 'he is around here' pu•yí. 'he is coming there (nearby)'
4. Imperative
$k$ - occurs in the same position class as m-
'second person'. The imperative is usually accompanied by the syntactic suffix -k or $-\mathrm{m}(801.4,801.5)$, particularly if the stem ends in a vowel:
kyí•k 'Come:'
ka•k 'Go:'
kyák 'Lie!'
kpáṭk 'Lie down!'

```
Ikám lá•x 'Don't go:'
ku`kát 'Cut! Chop!'
kşísk 'Drink! (pl.)'
```

413. Object-subject prefixes. The object and subject prefixes are used concomitantly only with personal transitive verbs. Second person object - first person subject ('I... you') is simply $n^{\text {y }}$-. Following the third person object prefix first person subject is a- before primary stems beginning with a single consonant. The desinences are otherwise regular and the object-subject prefixes are attached according to the rules for their respective form and position. The reflexive me- is a fourth object prefix which occurs with personal transitive verbs. (See Appendix I for position classes.):

| $\mathrm{n}^{\mathrm{y}}$ nák ${ }^{\text {, }}$ | 'I kill you' |
| :---: | :---: |
| $\mathrm{n}^{\text {y }}$ mnák | ' you kill me' |
| panák ' | 'I kill him' |
| pmnák ' | 'you kill him' |
| pa•nák | 'he kills him' |
| ma•nák | 'he kills you' |
| $\mathrm{n}^{\mathrm{y}} \mathrm{a} \cdot \mathrm{nák}$ | 'he kills me' |
| menák ' | 'I kill myself' |
| memnák | 'you kill yourself' |
| meunák | 'he kiils himself' |
| $\mathrm{n}^{\mathrm{y}}$ knák | 'Kill me:' |
| mcknák | 'Kill yourself:' |

$$
\begin{aligned}
& \text { pu•yá• 'I know him' } \\
& \text { pawyá. 'he knows him' } \\
& n^{\mathrm{Y}^{\text {sun }}}{ }^{\mathrm{y}_{u}} \text { 'I believe you' } \\
& \mathrm{n}^{\mathrm{y}} \mathrm{su} \cdot \mathrm{n}^{\mathrm{y}} \mathrm{u}^{\prime} \text { 'he believes me' } \\
& \text { pmcašéy 'you fattened him' } \\
& n^{y} \text { suk }^{W}{ }_{i} \text { 'he asked me a question' } \\
& \text { mkuwí 'he pursued you' }
\end{aligned}
$$

420. Plural. By means of several morphological processes the verb is inflected to denote a variety of meanings, all of which may be subsumed under the concept 'plural'. Five plural conceptual types are distinguished:
421. Collective subject: two or more animate beings perforn a singular or plural action collectively.
422. Distributive subject: two or more animate beings perform a singular or plural action individually, or one performs a plural action.
423. Distributive object: one or more animate beings perform a singular or plural action upon a plural animate or inanimate object, or upon a singular or plural object, animate or inanimate, repetitively or continuously.
424. Stative subject: a condition or state exists for a plural subject or for a singular or plural subject repetitively or continuously, animate or inanimate.
425. Impersonal subject: a plural inanimate action occurs singly, or a singular or plural action occurs repetitively or continuously.

The plural conceptual types correlate in a general manner as follows with the verb classes:

1. Transitive verbs and intransitive verbs with an inanimate object have a distributive object plural.
2. Stative verbs and impersonal intransitive verbs denoting a condition have a stative subject plural.
3. Impersonal intransitive verbs denoting an action and personal intransitive verbs with an inanimate subject have an impersonal subject plural.
4. Most personal intransitive verbs and auxiliary verbs with an animate subject are inflected both for collective and distributive subject plural.
5. Plural formation. More than one process can be used to denote the same type of plural. The same process or affix, on the other hand, can denote, according to the class of verb, different types of plurals. A large number of transitive and intransitive verbs can be inflected simultaneously for collective or distributive subject and distributive object. The prefixes occupy third position; the suffixes first position.
6. s- This prefix is not common. It usually denotes distributive object with the notion of repetitiveness: xám 'I hit' : sxám 'I beat'

It is of somewhat more common occurrence when accompanied by the suffix $-s$ or $-p$ and/or root vowel modification, with or without the added notion of collective or distributive subject. The derivational prefix u-- is dropped: u•káṭ 'I cut (once)' : skát or ská•ṭ
'I or we cut to pieces'
$u \cdot q^{W}$ áq 'I tear (once): $s q^{W}$ áq or $s q^{W}$ áqs 'I or we tear to pieces'
pwár 'I fail' : spwárp 'We fail'
$k_{n}{ }^{\mathrm{Y}}$ á•p 'I tell' : sknª́p 'I tell (a story)', also 'we tell'
mxán 'I watch': smxá‘n 'we watch'
2. $c-$, (t-after /n/). This prefix denotes cistributive subject, or distributive object with the notion usually of plural object. It is often accompanied by the suffix $-s$ or $-p$ and/or root vowel modification. The derivational prefix u-- (which is u-following another derivational prefix) is dropped:
gొ̣áw 'I bear a child' : şc?á•w 'I bear children'
nmák 'I quit, leave' : nṭmák 'I quit, leave (several things or several times)': nṭmák 'we quit, leave'
mšyá• 'I'm afraid' : mšcyáyp 'We're afraid'
mšráy 'I'm angry' : mšcrás 'we're angry'
cuwár 'I'm tired' : cowá•r or cwá•r 'we're tired'
şapár 'I dry (something)' : scapár 'I dry several things'
ş̧̧án 'I escape' : scká•n or ş̣á’n 'we escape
3. $n^{\mathrm{J}}$ - This prefix is used primarily with verbs of motion or position. It denotes collective subject. It is often accompanied by root vowel modification and one
of the plural suffixes. The stem of a number of verbs which take this prefix is suppletive: payí• 'I come' : pny ${ }^{\text {y }}$ yíw 'we come' sán $^{\mathrm{y}}$ 'I descend' : $\mathrm{n}^{\mathrm{y}}$ sán $^{\mathrm{y}}$ 'we descend' á•x 'I'll go': $n^{\text {y á•x }}$ 'we'll go' wayá. 'I'm around' : wan ${ }^{y_{i}}$. 'we're around' pá• 'I arrive (here)' : $\mathrm{n}^{\text {y }}$ kmís 'we arrive (here)'
pá•m 'I arrive there' : $n^{\text {y }}$ kním 'we arrive there'
4. -s can denote any plural concept except collective subject. It is often accompanied by a plural prefix and/or vowel modification. The derivational prefix u-- (u-) is dropped:

ṣí 'I drink' : ṣís 'I drink a lot'
yú 'I am' : yús 'I am, we are, continuously; it is continuously'
akú. 'I'm an old woman' : akúsz 'we're old women'
sán $^{y}$ 'I go down' : sán ${ }^{\mathrm{y}}$ s 'we go down' pké 'I carry in my arms' : pká•s 'we carry in our arms'
xmí• 'I am born' : xmí's 'we axe born'
ší 'I name' : ší‘s 'I, we name many'
šawín 'I hold' : šawíns 'we hold'
šuṭíp 'I untie, loosen' : štíps 'I untie several things or several times'

> šṭ́p 'I shoot' : šṭı’ps 'we shoot, I shoot a lot'
5. -p denotes collective subject and is used primarily with personal intransitive verbs. Root vowel modification may occur simultaneously. An accompanying plural prefix denotes distributive object:
má 'I eat' : má•p 'we eat'
mon ${ }^{\mathrm{y}} \mathrm{i} \cdot 1$ 'I can scarcely make, afford'
$m o n^{y} m i \cdot l p$ 'we can scarcely make, afford'
$n^{Y}$ wáy 'I inhabit' $: n^{\text {y }}$ cwá•yp 'we inhabit:
şáy 'I miss, lose' : scmá•yp 'we miss, lose'
šcú 'I gather, pick up' : šcú'p 'we
gather, pick up'
sí 'I drink' : sí•p 'we drink'
6. Root vowel modification. Modification of the stressed vowel of the root, most commonly by lengthening, may denote any of the plural concepts. It is the most common method for forming the stative subject plural. It is commonly used to denote distributive ubject, often with an accompanying affix. The derivational prefix $u \cdot-(u-)$ is dropped.

Shortening of the root vowel occurs only rarely, seldom without an accompanying plural affix. A few irregular modifications of the vowel occur in which /a•/ and /i* become /ay/ or /aw/, and/iw/, respectively:
r’ák 'I'm an old man' : roáck 'we're old men'

```
Šmá 'I sleep' : šmá•s 'we sleep'
p`áw 'I walk' : p`á`w 'we walk
ašáy 'I'm fat' : &šá'y 'we're fat'
xcáq 'I'm bad, ugly' : xcáqq 'we're bad,
    ugly'
tuk Wán}\mp@subsup{}{}{y
    Pinish eating'
i`yú p`úr 'I'm drowsy' : i`yú p`{^`r 'we're
    drowsy, I'm very sleepy'
skw\hat{i}
    several questions'
n}\mp@subsup{}{}{\textrm{y}
šmá·p 'I dream' : šcmás 'we dream, I
        dream several times'
an}\mp@subsup{}{}{\textrm{Y}}\mathrm{ á`k 'I do all night' : an }\mp@subsup{}{}{\textrm{y}
        all night'
mšyá. 'I fear' : mšcyáyp 'we fear'
wí• 'I see' : wíw 'we see'
sá• 'I eat (hard things)' : șáw 'we eat
    (hard things)'
pa·wíwp 'they (collectively) looked at
    him (or them)
šmá•l pi`t 'I'm deaf'
```

7. 'Suppletion. The auxiliary verbs wá 'sit', yák 'lie', p’á• 'stand' (and perhaps yá• 'be, happen, be located') share two 'ṣuppletive plural forms: yá•WK 'be locaited temporarily' and wá•y 'bellocated permanently', which deriote plural subject. -p (with vowel shortening) may be attached to distinguish collective subject:

$$
\begin{aligned}
& \text { payá•w 'we are here' } \\
& \text { uyáwp 'they are there together' } \\
& \text { pawá•y 'we live here' } \\
& \text { sa'yá•w 'they are over there' } \\
& \text { pumáyk 'they stay over there (nearby) } \\
& \text { somewhere' }
\end{aligned}
$$

430. Positional affixes. A group of affixes denoting position, motion, or manner occur either as prefix or suffix to the verb, as well as suffix to the noun (530). As prefixes they occupy two position classes. $m$ - and $k$ - occur in fourth position. $z^{Y_{-}}$is a prefix only and occurs in eighth position (see Appendix I). The former two may occur as first position suffixes to a few verbs denoting motion:
431. $i^{y}$ - 'in, into, on, onto' ${ }^{\mathrm{Y}}$ uxáp 'he went inside: $z^{Y}$ pa*xáp 'he went into him' $z^{\mathrm{Y}} \mathrm{un}^{\mathrm{Y}} \mathrm{a}^{\mathrm{I}}{ }^{\mathrm{Y}}$ 'he aropped into (it)' $Z^{\mathrm{y}}$ yá•w 'we are in (it)'
 $z^{Y}$ pmwáx $\quad$ 'you will sit on (ride) him' I' $_{\text {mouwi }}$ © $c$ 'he saw himself in it'
432. m- 'with, by means of, direction away from a point of reference' muxáp 'he went away (speaker is reference)' pmuxáp 'he passed him (subject is reference)' $n^{\mathrm{Y}}$ mu•ká•t 'I measure' (lit. 'something- by means of- I-cut repetitively)
$n^{y}$ mxuwá•k 'they are courting, going
together' (lit. 'someone-with-they are two')
$n^{y}$ murár 'he is occupied with it'
433. k- 'direction to a point of reference, usually away from an unspecified or indefinite location'. The validity of this prefir is difficult to establish. It is identical in form with and occurs in the same position as the derivational prefix k- 'do with the foot' (614.2). Its meaning in the following forms is ambiguous: pkuxáp 'he caught up with him' (he didn't pass him)
pkwí 'I ran after, followed him' cxáy kuyúm 'he went north' (cxá-y 'northin' is reference)
páy kuyúm 'he turns off here'
makáy kuyúm 'he went somewhere'
434. -m 'direction from a point of reference' wám 'he went' (from a point of reference) $\mathrm{n}^{\text {y }}$ kumím 'they got there' pám 'he went along' (from the place where he was)
$\mathrm{n}^{\mathrm{y}}$ xuláa m 'they crossed'
435.     - $k$ denotes 'direction to a point of reference, from more than one direction, or at different times' and in effect functions as a distributive plural. Both $-m$ and - $k$ may occur simultaneously as suffixes, with -m in the prior position:
pa•yí•k 'they came (not together and/or not at the same time)
upák 'they arrived here'
upámk 'they arrived there' (point of reference is both the location of the speaker and the place of arrival)
myí•k 'you come here'
436. Referential indefinite prefix
437. $n^{y}$ - 'something, someone' This prefix has as reference an object or animate being which is other than the subject of the verb to which it is attached. It is identical in form, and very likely in function and meaning, to the objective pronoun suffix. It may co-occur witil one of the positional prefixes. It always immediately precedes m- or $k$-. When used with $\mathrm{I}^{\mathrm{y}}$-, it appears to be optional as to which precedes the other. The position of $n^{\mathrm{y}}$ - is normally the ninth, or last, position:

$$
\begin{aligned}
& n^{\mathrm{Y}} \text { kuyúm 'I go in that direction' } \\
& n^{\mathrm{y}} \text { mkuyúm 'you go in that direction' } \\
& \mathrm{n}^{\mathrm{y}} \text { mxáp 'I go through' } \\
& \mathrm{n}^{\mathrm{y}} \text { mmxáp 'you go through' } \\
& z^{y} y^{y} y_{m t a ? a ́ m k} \text { 'you put it in upside down' } \\
& n^{\mathrm{y}} \mathrm{y}^{\mathrm{y}} \text { wác 'it was in it' }
\end{aligned}
$$

2. It is an obligatory prefix to many stems, in which case it occupies the fourth position class:

$$
\begin{array}{ll}
\mathrm{n}^{\mathrm{y}} \text { wíz } & \text { 'I retuse' } \\
\mathrm{mn}^{\mathrm{y}} \mathrm{y}_{\text {wí }} & \text { 'you refuse' }
\end{array}
$$

$$
\begin{aligned}
& \mathrm{pn}^{\text {Y }} \text { uwíz } \text { 'he refuses him' } \\
& n^{y^{\text {wát }}} \text { 'I finish' } \\
& \mathrm{mn}^{\mathrm{y}} \text { wát }{ }^{\text {tyou finish' }} \\
& m^{y}{ }^{\text {y }} \text { ?á. } 1 \text { 'you put clothes on' } \\
& n^{y} u \cdot P a ́ \cdot 1 \text { 'he puts clothes on' }
\end{aligned}
$$

In this position it can be used to distinguish animate and inanimate reference:

$$
\begin{aligned}
& k u ́ \cdot k \text { a?ís 'I have a Coke' } \\
& n^{\mathrm{y}} \text { a?ís 'it is mine, they are mine (e.g., } \\
& \text { a child)' } \\
& k^{W} \text { ramás pn }{ }^{\mathrm{y}} \text { a?ís 'I have children' }
\end{aligned}
$$

3. As a non-obligatory prefix $\mathrm{n}^{\mathrm{y}}$ - clearly has reference in many instances to an indefinite or unspecified location, rather than to an object or animate being. With this reference it has the freely variable allomorph $\mathrm{n}_{\mathrm{i}} \mathrm{I}^{-}$(except before a consonant which is a coda):

$$
\begin{aligned}
& n^{y_{i} \cdot p u ? a ́ \cdot c} \text { 'he stood there' } \\
& n^{y} p \nmid a ́ \cdot c \text { 'I stood there' } \\
& n^{y}{ }^{y} \cdot w a \cdot y a ́ \cdot c \text { 'he was around there' } \\
& n^{y} i \cdot y \text { ák 'it was lying there' } \\
& n^{y}{ }^{y} \cdot p a \cdot x i ́ r ~ ' h e ~ t i e d ~ h i m ~ t h e r e ' ~ \\
& n^{y} \text { pmxír 'you tied him there' } \\
& n^{y} \text { yuwác 'he was there' }
\end{aligned}
$$

4. $n^{y}$ - can also have reference to time with the meanings 'then, when, if (true-to-fact), afterwards': $n^{y}$ pkuyá•c 'then he lead him (viz. horse)' $n^{y}$ pím 'then he gave to him'

$$
\begin{aligned}
& \mathrm{n}^{\mathrm{y}} \mathrm{pa} \cdot \mathrm{ya} \cdot \mathrm{c} \text { 'then he took him' } \\
& \mathrm{n}^{\mathrm{y}} \text { pmxír 'when you tie him' } \\
& \mathrm{n}^{\mathrm{y}} \text { numák 'then he left' } \\
& \mathrm{n}^{\mathrm{y}} \mathrm{ymán} \text { 'then you get up' }
\end{aligned}
$$

With this reference it always follows a locative temporal prefix (450) in fourth position: $\mathrm{pn}{ }^{\mathrm{y}}$ wá 'then he was (located) here' $p n^{\mathrm{y}} \mathrm{a}^{\prime} \cdot \mathrm{m}$ 'afterwards he went along' sn $^{y}$ pu?á•c 'then he stood over there' $p^{y}{ }^{y} p u \rho a \cdot c$ 'then he stood here' ( $n^{y}$ pu?a•c may mean either 'then he stood' or 'he stood in an unspecified location')

Before primary stems with a single consonant preceding the stressed vowel, it has the allomorph $\mathrm{n}^{\mathrm{y}}$ a-.

$$
\begin{aligned}
& \mathrm{n}^{\mathrm{y}} \text { amán } \text { 'then I got up' }^{\prime} \\
& n^{\mathrm{Y}} \mathrm{a} \cdot \text { mán } \text { 'then he got up' (Cf. } \mathrm{n}^{\mathrm{y}} \text { yuyák 'he } \\
& \text { lies there in an unspecified location') } \\
& \mathrm{n}^{\mathrm{y}} \mathrm{a} \cdot \text { คác } \quad \text { then he said' } \\
& \text { ( } \mathrm{n}^{\mathrm{y}} \text { a・ワác also means 'he said to me') } \\
& \mathrm{n}^{\mathrm{y}} \mathrm{a} \text { "xú•c 'then he hid himself' }
\end{aligned}
$$

450. Locative-temporal prefixes. The prefixes pa- 'here nearby, now' , pu- 'there nearby, then', and sa- 'over there, a distant time' denote position or time in relation to a point of reference in the mind of the speaker. They are used only with auxiliary verbs. The prefix c-, with the alternate forms cu- and, less commonly, ca- denotes the contiluation of an action or state, usually one which is
already in progress. None of the prefixes retain the vowel except before a single conisonant immediately preceding the vowel of the stressed syllable.
451. pa-
pawá 'I am (located here, it is here')
pmwá 'you are here'
pa•wá 'he is here
payák 'I am here in a lying position'
pa•yák 'he is here in a lying position'
pa•yá•w 'they are here'
pwa $\cdot n^{y}{ }^{y}$. 'they are around here'
452. pu-
pu•wá 'he is there, nearby' puwáy 'we live there (nearby)' puwá 'it is, I am, was there, nearby' puyá•c 'It happens, has happened, that is, was the situation' ppuná. 'he stands here'
453. sa-
şayŕ 'it exists there, then'
sa•yafo 'they are located there (far away)'
ṣa•yí• 'he is coming along there'
spurác 'he is standing there'
swa•yác 'he is around there'
$\sin ^{\mathrm{y}}$ ayám 'and then it is located there
(i.e., a tree which we have planted)'
454. c-, ca-, cu- ca- with the continuative notion appears only in the stem cawi•m 'make no difference, be all the same to one'. a- is perhaps here a derivative prefix (611). u-- is very likely the derivative prefix uo(which has the former shape following another derivative prefix). There is, however, no apparent difference in the meaning of the three forms:
cuyluc 'I have been and am (doing something)' cuwáx 'I'll stay (i.e., I am here now and will remain)'
cu-mác 'he continues to eat, not necessarily without stopping, but off and on over a period of time'
cwá•yc 'I dwell, inhabit' cmpá• $\operatorname{xan}^{\text {y }}$ 'you really will continue to $g \circ$ along'
cu?áxa 'I will continue to go'
mxcál cmyákxa 'you who are lying down will continue to remain poor' (-a in the last two examples is stylistic.

See 801.8.)
There are certain irregularities in the conjugation for person upon the prefixation of the locative-temporal prefixes to the stem á ' 'go'. First person has /P/ which is freely variable before word-initial vowels. / / is not present in second person. Third person has no overt marker:

```
parác 'I am going along here'
pmácc 'you are going along here'
pa.c 'he is going along here'
sa'm 'he is going along there away from
    (a point of reference)'
cu`á•x II will continue to go along (in
    time or place)'
cmá`x 'you will continue to go'
ca'x 'he will continue to go'
```

pa- is to be distinguished from the derivative prefix p- 'do by walking' (614.4) which does not contain /7/ in first person and whose position follows the pronominal prefix (as determined from second person; see Appendix I):
pác 'I arrive' (lit., 'I go by walking')
mpá•c 'you arrive'
pwac 'he arrives'
There is a distributive object plural to the latter form: pwarc 'he is on his way, and has not yet arrived', for which there is apparently no corresponding first or second person form. The same notion is expressed in first and second person by $c(u)-$ : cupá $\cdot c$, cmá $\cdot c$.
460. Non-referential
461. Indefinite. k-, ka-, kt- A prefix expressing indefiniteness as to manner, time, quantity, object, purpose, etc., occurs only with the verbs: $i$ 'say, do, be', a?i 'åo, act', and yú 'be, exist'. It has the form ka- before i' and yrí, and kt-before a?í. (The vowel /a/ of aPí is dropped
upon prefixation of kṭ-.) It may be that ktt-is better considered as two prefixes, as $/ \mathrm{k} /$ and /t/ occupy two position classes: kmt?íc 'How, what can you do, are you doing? You are doing something, in some manner'. /a/ of ka- is present only before a consonant immediately preceding the root vowel. The freely variable initial / $/ /$ of $i$ 'say' is functional upon the prefixation of ka-. i is not conjugated for animate person with this prefix:
kayú 'it is to this extent, about, perhaps'
ka•yúsx 'whatever they will be; they will
be something, somewhere'
ka?ím 'How is it?'
kayuc uyúm 'Why is he like that?'
kmyíc 'How is it that you ...?'
kṭík 'How am I to do ...?'
lú• $n^{y}$ kayus 'all sorts of things'
kṭu’ák 'How is he to do? He will do somehow.'
The referential indefinite prefix $\mathrm{n}^{\mathrm{y}}$ - in fourth position may be used with $k$ - with an impersonal reference to time:

$$
\begin{aligned}
& \mathrm{kn}^{\mathrm{Y}} \text { ayúkm 'sometime it will take place ...' } \\
& \mathrm{kn}^{\mathrm{y}} \mathrm{a} \text { ?ím 'it sometimes is that ...' } \\
& \mathrm{kn}^{\mathrm{y}_{\text {ayúm }} \text { pu?a'xi 'When is it that he will }} \\
& \text { stand up?' }
\end{aligned}
$$

462. Definite. 1-, lu- This prefix when not part of the discontinuous negative affix $l(u)-\ldots-m$ is usually used only with í 'say'. It is undoubtedly derived from, or related to, the demonstrative pronouns $2 u ́ \cdot p$ and $2 u ́ \cdot n^{y}$.

Im?íxi 'What would you say?'
lu®ic im 'What did I say?'
lupík $\mathrm{kn}^{\text {Yá }} \cdot \mathrm{pxi}$ 'How will I tell it?'
lu’ác ám 'What did he say?'
lma•Pác ma•šía 'what do they call you?'
470. Negative affix. Negation is expressed by means of the discontinuous affix $1(u)-. . .-m$, with $/ u / p r e s e n t$ only before a consonant which immediately precedes a stressed vowel. Although the notion of negation is otherwise evident without it, a verb with the negative affix is usually followed immediately by the impersonal verb lá•x. The suffixal element -m is always in last position. The prefixal element l(u)- occupies the seventh position class (see Appendix I). Negation may be expressed simply by lu- (this is not common): u•yá•luxan ${ }^{y}$ 'I don't know everything' (see 616.2). The element lu- is undoubtedly the non-referential definite described above (462). The element -mis probably the subordinate syntactic suffix (801.4). The semantic notion of negation is somehow derived from their simultaneous affixation.

$$
\begin{aligned}
& \left.n^{y} \text { Zuwám ( } n^{y}-z^{y}-1 u-w a ́-m\right) \text { it is not in it' } \\
& \left.n^{y} \text { 壬uyákm lá•x ( } n^{y}-z^{y}-1 u-y a ́ k-m\right) \text { it does not } \\
& \text { lie in it' } \\
& \text { la?ín lá•x (1-a?í-m) 'I didn't do (it)' } \\
& \text { Iusỉn lá•x (lu-sí-m) 'I don't drink; I } \\
& \text { didn't drink (it)' } \\
& \text { lu'şím lá•x (lu-u-ṣí-m) 'he didn't drink' }
\end{aligned}
$$

> In ${ }^{\text {Y nákm lá•x }}$ 'I didn't kill you'
> lpmnákm iá•x 'you dian't kill him'
> lká•m Lá•x 'Don't go:'
> lksxṭúm lá•x 'Don't spit:'
> In ${ }^{\text {y }}$ knákm lá•x 'Don't kill me:'
> lpawyá•xm 'they don't know them'
480. Inflective suffixes. The inflective suffixes (excluding those already described) are not readily classifiable into explicit semantic categories. They are presented according to the position class they are known to occur in.
481. First position. The first suffixal position is occupied by a positional or plural suffix $(430,421)$ and: -wa (-w after a vowel) benefactive 'do for someone': pan ${ }^{\text {Y }}$ áywax 'I will hunt something for him' $\mathrm{n}^{\mathrm{y}}{ }^{2}$ Iíw 'I do something for you' pwaṣá‘w 'I feed him hard things' pís $n^{y} y a ́ \cdot w x$ 'I'll get you sume money' payá•wx 'I'll get him something' payá•wx 'I'll get him something' ppåáywax 'I'll guard it for him'
482. Second position
$-n^{y} ;-n^{y}$ : imitative This suffix denotes that an action performed by the subject is the same as that performed previously or simultaneously by someone else. Its function following $i$ 'say', especially with the emphatic -pa inmediately following, is that of a quotative. Following
yú 'be, exist' its meaning is less obvious, e.g., yún ${ }^{\mathrm{y}} \mathrm{pa}$ 'it happened so, in such a manner' (cf. yúxpa 'it will happen'). Finally after a consonant it has the form $-n_{i}{ }_{i}$ (in one idiolect $-n^{\mathrm{y}}$ a):

$$
\begin{aligned}
& \text { pá } \mathrm{n}^{\mathrm{y}} \mathrm{c} \text { 'he went along too' } \\
& \text { pwán }{ }^{\text {y }} \text { xa 'he'll arrive also' } \\
& \text { ṣawńn }{ }^{y} \text { 'he's there too' } \\
& \text { ká } \mathrm{n}^{\mathrm{y}} \mathrm{xu} \cdot \mathrm{c} \text { 'Go too if you like:' } \\
& \text { ukúz }{ }{ }_{n} y_{i} \text { 'heís climbing too' } \\
& \text { pwán }{ }^{Y}{ }_{i} \cdot c \text { ( } p w a ́-n^{y}-i \cdot-c \text { ) 'he also came again' } \\
& \text { supifin }{ }^{\mathrm{y}} \cdot \mathrm{C} \text { 'she's also washing (which she } \\
& \text { habitually does)' } \\
& \text { uyákn }{ }^{y_{i}} \text { 'he's lying down too' } \\
& \text { yulú paisin }{ }^{\text {Y }} \text { pa 'you know who I mean' } \\
& \text { (lit. somebody him-I say-also-mildly emphat- } \\
& \text { ically) }
\end{aligned}
$$

483. Third position.

- y; -i•; -ya habitual, usitative, repetitive, continuative. This suffix denotes that an action has been performed previously by the subject of the verb, either a single previous performance or one customarily performed. The suffix has the form -i* between consonants, ya after a consonant when final or before $-x$, and after /i/ or /i// when final. It is optionally -y or -ya finally after vowels other than /i/ or /i•/, and -y before a consonant after vowels other than /i/ or /i//. After /i/before a consonant, /i/ is lengthened:

4
sá•yx 'I'll eat again'
šmáyx 'I'll sleep again'
sí•x 'I'll drink again'
pca•núpi•c 'he washed him again'
s?úlya 'I washed (clothes, as I usually do)'
pwáyxa 'He'll come back'
sumáyc 'he was sleeping (as he customarily does)'
awyá•yc 'now he knows (he remembers, having forgotten)'
$\mathrm{n}^{\mathrm{y}}$ kumísi•c 'they came back here again'
u’ásyax 'tiley will do it again'
The continuative notion is expressed by attaching the suffix to the auxiliary verb í 'say, do' immediately following the main verb with the intentive $-x$, with the implication that the action of a following verb is simultaneous or immediately follows:

```
pa'x ay(c) 'He's still going along'
pá`x i*c n}\mp@subsup{n}{}{\mathrm{ yawí mác 'As soon as I arrived,}
    I ate'
pwáx ayc n}\mp@subsup{n}{}{\textrm{Y}}\mathrm{ awí• umác 'As soon as he
    arrived, he ate'
pá| i*c n}\mp@subsup{n}{\mathrm{ Ywí máx 'As soon as I get there,}}{
    I'II eat'
n}\mp@subsup{}{}{\mathbf{Y}}\mathrm{ awi' umáx ayc puwác 'H has just sat down
    and is now eating' (Something he-will-
    eat he-says he-sits-here (doing it))
```

484. Fourth position
-x intentive This suffix denotes that an action is to be performed by the subject, usually with the implication that it is the desire or intention of the subject, if animate, that the action of the verb take place: ci•xáyx 'it will be windy' kayúx 'whatever will be' $n^{\text {y }}$ mpátex 'you are about to lie on it (tne bed)' i・ワí•px 'I'll listen' pa•nákx 'he intends to kill him' mi•yá•y pítx 'you'll be crazy' mṣn ${ }^{\text {Yupís }}$ 'she'll bewitch you'

With the second person it can function as a polite (?) imperative:

> má•x 'you are to go'
> m?íx 'you will say, do'
> mi•?ípxa 'you better listen:' (not very polite, according to one informant)
485. Fifth position

1. $-z^{\text {y }}$ desiderative-potential This suffix is used only with the intentive $-x$ and expresses a desire on the part of the speaker that an action take place, or his opinion on the potentiality of occurrence of an action. The verb to which this suffix is attached is commonly followed by í 'say':

$$
\text { ácx } \exists^{y} \text { 'I want to go' }
$$

cuwáx.x ${ }^{Y}$ 'I want to stay' spssá'sxi ${ }^{\text {y }}$ íc is 'I think we should move' ssmáxísá. 'I would really like to go to sleep'
pmwá•yxł ${ }^{\text {y }}$ ic is ' want you to call him' kayúx ${ }^{\text {y }}$ ic 'it might be (such and such)' kmyuxi ${ }^{y} n^{y}{ }^{\mathrm{y}}$ isya 'I hope that somehow you (pl.) will, or can' (lit., somehow-you-will -I-wish to-you-(pl.)- I-say-again),
 that you will ...'

In a question the reference is to the desire or opinion of the subject of the verb: lú•p kmyúx ${ }^{\text {T }}$ pmám myú $\quad$ Where might you be going? Where do you wish to go?'
2. -pa mild emphatic This suffix is used primarily with yú 'be' and í 'say'. Its meaning is approximately 'it is, or will be, exactly as has been stated'. The verb phrase uyí ac in ${ }^{\mathrm{y}} \mathrm{pa}$ occurs commonly in narrations in sen-tence-final position and may be broadly translated as: He did what I have just said and I am only repeating it as I was told it':
pawác yun ${ }^{y} \mathrm{pa}$ 'I'm here (too)' yúxpa 'it will be thus'
pšuyípa 'I just come bringing'
uyń•ppa 'they are together'
ác an ${ }^{\mathrm{y}} \mathrm{pa}$ 'he said so' (he said that they said)
a•xpa 'I will surely go'
3. -s assertive As a suffix to í, $a \oslash i ́$, or yú, -s emphasizes the truth of a statement and/or implies that the information conveyed was previously unknown to the hearer. It also occurs immediately following the intentive -x with the same meaning, and therefore must be considered a fifth position suffix. As a suffix other than to the above three auxiliary verbs, and without the intentive $-x$, there is included an element of doubt or hesitation. It is possible that the meaning in the latter instance is sufficiently distinct to consider it a different suffix. It can only be preceded by the syntactic suffix -k or by a plural suffix in the latter usage:
åiṣ 'I did do it, I am doing it'
íg 'I'm saying it, and it's so'
pawác yus 'I'm here (sitting)'
ṣawác uyus 'he's over there'
$\mathrm{mn}^{\mathrm{y}}{ }^{\text {árex }}$ iṣ 'it will taste good, sweet, I say' $\mathrm{n}^{\text {y ṣá }} \mathrm{xṣ}^{\prime}$ 'I will eat you'
$\mathrm{n}^{\text {y sáas }}$ 'I'm eating you'
(The informant expanded upon the meaning of the last four forms as follows:

$$
\begin{aligned}
& \text { mn }^{y} \text { á•xc iṣ 'It might taste sweet; I } \\
& \text { think it'll be sweet' } \\
& \mathrm{n}^{\mathrm{y}} \text { sá•xc is 'I'm telling you I'm going to } \\
& \text { eat you. I'll eat you if gou don't } \\
& \text { watch out' }
\end{aligned}
$$

$\mathrm{n}^{\mathrm{y}}{ }_{\text {ṣá }} \mathrm{x}$ ṣ 'I'm going to eat you for sure' $\mathrm{n}^{\mathrm{y}}$ ṣás ${ }^{\text {s. }}$ I'm eating you, but...maybe you don't taste so good')
i.ṣ (distributive object plural of í 'say')
'I think so, I continuously assert it' sumic as 'he laid it down' kmyúxs 'you would, will be able somehow to be, do'
lá•xs 'if not; it may not be so' pa•wi•s 'he saw him, but (he was doubtful about something)'
payákṣ 'as for me (lying down)' (lit., 'I am in a reclining position as I talk to you and my opinion is such and such or I am doubtful about something')
4. - c perfective-sequential It is difficult to arrive at the exact function and meaning of this commonly occurring suffix. In a sequence of verbs denoting a series of actions by the same subject, verb stems ending in a vowel attach -c while those ending in a consonant ordinarily do nct, although they may do so with apparently no difference in meaning, e.g., wáł ${ }^{\text {Y }}$ uxáp uyá•c supás $n^{y}$ iyuwác awxám pa•wác pa•wác pa•wác 'He went into the house, picked (something) up, came out, then sat and hit (it on the ground) three times'. In this function it is not clear whether a perfective aspect is indicated. Its function here is definitely syntactio, however, as it contrasts with the syntactic sub-
ordinating suffix -m (801.4) which denotes the following verb as having a different subject: sa•yíc pa"wi•c C He was coming there and saw him' (same subjects), ṣa•yím pa•wi•c 'He saw him coming there' (different subjects). (See 863.1.)

In other instances the aspective function is more obvious: pawí• 'i'm looking at him', pawi'c 'I saw him'. The latter may also mean 'I'm looking at him', but with an apparent emphasis on the initiation of the action and/or the denotetion that the action is expected to be completed. There is no reference to tense in the former form. pawi. may also mean 'I was looking at him'. The lack of the suffix -c may thus indicate a sort of 'progressive'. It does not appear, however, necessarily to denote a progressive action, but rather a lack of emphasis on aspect:

Compare the following examples with the comments of the informant:
uşa•c ṣa'wá 'He's there eating (hard things)'
('You say this if you are vutside and tell somebody, and you know he's still eating')
uṣác sa•wác Informant: 'This means the same as the other, except that you expect more to follow'. Note: This does not mean that the two forms are not predicative, but rather that -c anticipates the completion of the eating and a statement of further action by the subject. A more
satisfying statement than the latter is: uşác ṣa•wác uyuṣ which means 'He's there eating' or 'He ate there', in which the syntactic function of -c is evident.

With certain verbs the combination -xc denotes an habitual or continuative action rather than an intention
 kwáspiz ${ }^{\text {Y }} n^{\text {Y }}$ wáyxc yus ${ }^{\text {y }}$ I live in this house' (house which-is-located-ermanently-in I-live-intentive-perfective I-doevidential).

Certain verbs, e.g., má- 'be ripe', do not occur without the suffix - $c$ or $-x$, and thus lend credence to the perfective function of $-c$. Being ripe is to the native speaker a completed action.

Other examples of $-c$ :
law?ámx ac 'he won't do it, he says' pa•Pác 'he says to him' pa•yí•c pwác $n^{Y}$ má•m $n^{Y}$ yuwác ucít 'He comes here, arrives, then sits there and defecates' pa•wíc awşáy ṣpu?á•c 'He looks at him and laughs, as he stands there' px Wáyc 'Good! That's o.k. Fine!'
(implying that what was said has been
accepted by the hearer)
šucúc kuwá•k pá. 'She picks it up and as she
is going along returning...' Note: This is a complete sentence, but the emphasis is directed to the action of her going along (pá•). The sentence following this states what happens while she is going along.

Noun inflection involves fewer affixes and position classes, but does not essentially differ from verb inflection. Noun inflectional categories are: pronominal prefixes, plural, and case suffixes. The second person pronominal prefix is the same for the verb and noun. First person has no overt marker in either the noun or verb. The third person pronominal prefixes, however, differ, and it is often by means of the form of the third person that the two word classes may be distinguished.

The formation of the noun plural, though deficient and much less elaborate than the verb plural, is accomplished by the same affixes and processes. The noun case suffixes can be equated with the positional affixes of the verb. The objective suffix $-n^{\mathbf{y}}$, attached to pronouns, is identical in form and perhaps is related in function and meaning, to the referential indefinite verb prefix.

Nouns consist of nouns proper and a subclass of pronouns. Pronouns are formally distinguished from nouns proper by the objective suffix $-n^{y}$, as opposed to an unmarked objective for nouns proper. Pronouns, in addition, differ from nouns proper in not being inflected for plural and in not dexiving verbs.
510. Pronominal prefixes. Pronominal prefixes distinguish person with no reference to number or sex and, for most nouns, denote possession. For a few nouns referring
to humans the prefixes establish identity rather than possess. Possession of most nouns that are ordinarily possessed (but excluding kinship terms and body parts) is accomplished syntactically by means of the distributive object plural of the verb a?í 'do' (i.e., a?is 'have, own') immediately following the possessed noun (which is object of the verb): $n^{y} q^{W}$ ál $u^{\text {ª́s }}$ 'her front dress', $n^{y} q^{W}$ al maris 'your front dress' (See also 440). Kinship terms and body parts are inalienably possessed and require a pronominal prefix. A few alienably possessed nouns can be possessed by means of pronominal prefixes by attaching first to the stem the derivative prefix $n^{\text {y }}$ - 'animate possessive', which often modifies somewhat the meaning of the stem. (See Appendix I for position class.)
511. First and second person. First person has no overt marker to indicate possession. Second person prefix is $\mathrm{m}^{-:}$

$$
\begin{aligned}
& \text { i•xú 'my nose' } \\
& \text { mkúr 'my forehead' } \\
& n^{y} \text { wá 'my house' } \\
& \mathrm{n}^{\mathrm{y}} \text { cá• 'my mother' } \\
& \mathrm{n}^{\mathrm{y}} \mathrm{x}^{\mathrm{w}} \text { át 'my blood' } \\
& \text { ixmá 'my penis' } \\
& \text { iskáw (or skáw) 'my father's younger } \\
& \text { brother' } \\
& \text { s̊má• 'my ear' } \\
& \text { psá• 'my daughter (m.s.)' } \\
& \text { mi•yá 'your mouth' }
\end{aligned}
$$

```
mmx*ám 'your hair'
mn}\mp@subsup{}{}{y}\mathrm{ xát 'your dog, pet'
mn}\mp@subsup{}{}{\textrm{Y}}\mp@subsup{\mathbb{k}}{}{W}\mathrm{ á. 'your mother's brother'
mxká. 'your daughter's son'
mswwáz 'your armpit'
mlxa 'your saliva'
```

512. Third person. The third person pronominal prefix is $\mathrm{n}^{\mathrm{y}}$ - for all nouns which may take a pronominal prefix other than those dealt with in 512.1 and 512.2:

$$
\begin{aligned}
& n^{y}{ }^{\text {i }} \times \text { xú }^{\prime} \text { 'his nose' } \\
& n^{y}{ }^{\text {msíi }} \times \text { I }^{y} \text { 'his thigh' } \\
& \mathrm{n}^{\mathrm{y}} \text { xckár 'his chest' } \\
& \mathrm{n}^{\mathrm{y}} \text { lxá } \text { 'his saliva' } \\
& \mathrm{n}^{\text {Y'šmá•1 }} \text { 'his ear' } \\
& \mathrm{n}^{\mathrm{y}} \text { ṣc?áw 'her son or daughter (w.s.)' }
\end{aligned}
$$

512.1. Secondary stem nouns with the derivative prefix $n^{y}$ - 'animate possessive' attach a- in the position immediately before the consonant preceding the vowel of the stressed syllable. a- in effect denotes third person possession, although the third person pronominal prefix $n^{y}$ - may optionally be attached, providing the possessing noun is not present:

$$
\begin{aligned}
& \left(n^{\mathrm{y}}\right) \mathrm{n}^{\mathrm{y}} \text { awá } \text { 'his house' } \\
& \text { apá } n^{\text {y }} \text { awá 'the man's house' } \\
& \mathrm{n}^{\mathrm{y}} \text { kamí 'his pocket' } \\
& n^{\text {Vax }}{ }^{W} \text { át 'his blood' } \\
& n^{\text {ºxát }} \text { 'his dog, pet' }
\end{aligned}
$$

512.2. Most kinship terms indicate third person pos-
session by means of a verbal noun. That is, the kinship term (besically a noun) is converted into a verb either with no change in the stem or by means of the verb-forming suffix -y (621) and concomitant shortening of the root vowel, from which verb a noun is derived by means of the derivative prefix $\mathrm{k}^{\mathrm{W}}-(721)$. Kinship terms which indicate third person possession in this manner have /a/ in the position immediately before the consonant preceding the vowel of the stressed syllable. This prefix a- is possibly equated with the same prefix co-occurring with $n^{y}$ - 'animate possessive' (512.1), although it is more probable that its function is that of the derivative prefix a- (611).

$$
\begin{aligned}
& \mathrm{z}^{\mathrm{W}} \mathrm{n}^{\mathrm{y}} \text { acáy 'his, her mother' } \\
& k^{W}{ }_{n}{ }^{y} \text { åáy } \text { 'her father (m.s.)' } \\
& { }^{4}{ }^{W}{ }^{n}{ }^{\mathrm{y}} \text { akú 'his father (m.s.)' } \\
& k^{W}{ }^{W} \text { án }^{y}{ }^{y} \text { 'his younger sister's son (m.s.)' } \\
& \text { six }{ }^{W} \text { amán }^{\text {y }} \text { 'his younger sister's daughter (m.s.)' } \\
& \text { s. }{ }^{W} \text { Wxká. 'her, his daughter's daughter' } \\
& \text { ṣ`áw 'son or daughter (w.s.)' is apparently }
\end{aligned}
$$

the only kinship term which denotes third person possession simply by the pronominal prefix $n^{\mathrm{y}}$ - (i.e., $\mathrm{n}^{\mathrm{y}}{ }_{\text {ṣ? }}{ }^{\text {a }}$ ). The following are the only kinship terms obtainable which have both $\mathrm{n}^{\mathrm{y}}$ - and a-:

$$
\begin{aligned}
& n^{\text {y }} \text { pasá• 'his daughter (m.s.)' (psá• 'my ...') } \\
& \mathrm{n}^{\mathrm{y}} \mathrm{x}^{\mathrm{W}} \mathrm{amá}^{\prime} \cdot \text { 'his son (m.s.) (xu•má• 'my ...') } \\
& n^{y^{w a n}}{ }^{\mathrm{y}}{ }^{\text {a. }} \text { 'his, her daughter-in-law' } \\
& \text { ( } u \cdot n^{\text {yá }} \text { 'my ...') }
\end{aligned}
$$

$/ \mathrm{n}^{\mathrm{y}} /$ is a common phoneme preceding the root syllable of kinship terms. It undoubtedly is to be segmented, although the root is not a free form. It is not certain whether its meaning should be considered equivalent to that of the derivative $\mathrm{n}^{\text {y }}$ (512.1, 711).
513. Identity. The pronominal prefixes attached to certain nouns referring to humans, e.g., 'man', 'woman', 'boy', 'girl', which are not thought of as being possessed, establish identity with meanings like: 'you women', 'we men', 'I whe am a man', 'they who are girls'. The second person construction prefixes $m$-, as for possession: ms?á‘k 'you women, you who are women' mapá 'you who are a man' mapás 'you men'
mṣxá• 'you who are a girl past puberty but not married'
Third person identity is formed by $\mathrm{n}^{\mathrm{y}}-$, which can be equated with the third person pronominal prefix (512) attached to all such nouns except apá 'man'. $n^{\mathrm{y}}$ - prefixed to apá means 'I who am a man' ( $\mathrm{n}^{\mathrm{y}}$ apá•s 'we men'). The form for third person identity is apá 'man' (or apá's 'they who are men, those men, the men'). The use of $n^{y}$ - for third person identity somewhat parallels that of the referential indefinite verb prefix $\mathrm{n}^{\mathrm{y}}$ - (440).
$\mathrm{n}^{\mathrm{y}}$ - can be used when the reference is to first person, as well as to third person. Thus, $\mathrm{n}^{\mathrm{y}} \mathrm{s}^{\circ}$ á $\cdot \mathrm{k}$ may mean 'we women' or 'they who are women'. Although the alternate meanings appear somewhat incongruous, the reference to first per-
son may have been analogized from the first person pronominal object verb prefix $n^{\mathrm{Y}}$, or from $/ \mathrm{n}^{\mathrm{y}} /$ of the first person pronoun $n^{y^{\text {á }} \cdot c \text {. }}$
520. Plural. The elaborate plural concepts of the verb are lacking in the noun plural. A plural form of a noun means simply 'more than one'. The processes of the formation of the noun plural, however, are virtually identical with those used in forming verb plurals (421).

Nours other than those which overtly mark the plural can have either singular or plural reference. Except for xát 'dog', nouns inflected for plural refer to human beings.

The plural formation is described according to the morphQilogical process involved:

1. Root vowel modification. Shortening of the root vowel without further modification occcurs only in one form, a kinship term: $n^{\text {y }}$ sú•s 'my younger sister', $n^{y}$ sús 'my younger sisters'. Final/a/ and /u// of a stressed syllable is usually modified to /ay/ and/uy/, respectively: psá. 'my daughter' (m.s.)' : psáy 'my daugrters (m.s.)'
xu•má• 'my son (m.s.) : xu•máy 'my sons (m.s.)
 'girls ...'
$k^{W}$ Whu. 'old woman' : $k^{W}$ akúy 'old women'
Shortening of the root vowel and $\mathbf{- s}$ occur in one form:
 my father's older brothers'

The vowel of the stressed syllable is commonly lengthened: xasán ${ }^{y}$ 'young girl before puberty' : xasá•n ${ }^{y}$ 'young girls ...'
s?ák 'woman' : s?á‘k 'women' capáy 'Indian (Cocopa)' : capá•y 'Indians' xát 'dog' : xá•t 'dogs'
Lengthening of the root vowel and -s occur in two forms: äpá 'man': apá•s 'men' wán ${ }^{\mathrm{y}}$ 'my sibling's son' : wá• $\mathrm{n}^{\mathrm{S}}$ '... sons'
2. -s This suffix is fai $r l y$ common:

ṣiṣ?á. 'my younger sister's daughter' : șiṣ?á•s '... daughters' $n^{y_{x u ́} \cdot 1} \quad$ 'my younger brother' $: n^{Y} x u ́ \cdot 1 s$ '... brothers'
 'my daughters-...' áw 'my grandson' : áws 'my grandsons' şịáw 'my granddaughter' : ṣi?áws 'my granddaughters'
3. c- This prefix forms the plural of one kinship term: ṣ?áw 'my son, daughter (w.s.) : sçáw 'my offspring'
4. Suppletion. One noun has a suppletive pluxal: $k^{W}{ }^{\text {an }}{ }^{\mathrm{Y}}$ úk 'baby, child under two years' : $k^{W}$ ramás $\quad$ 'babies, children ...'
5. The plural of two nouns is formed by shortening the vowel of the stressed syllable, by consonantal modification, and by prefixing the element /a•/ before the consonant preceding the stressed syllable. The plural forms resemble
verbal nouns formed by means of the prefix a- (722): kxu'n 'boy of age two until puberty' : $x^{W} a \cdot x u ́ n ~ ' b o y s . . . '$ xmík 'boy from puberty to marriage' : $x^{W}$ a•mík 'boys ....'
(ka•xún and xa•mík are also acceptable for the plural forms.)
530. Case suffixes. The noun case suffixes, with two exceptions, parallel the verb positional affixes (430). The noun suffixes -i and -c do not occur as verb positional affixes. -c performs the syntactic function of denoting subject (801.1).

There are two sets of 'demonstrative' suffixes whose last element consists of one of the case suffixes, with the exception of $-m$ and $-k$, and whose first element is $p^{-}$ or s-. Between the latter and the case suffix (except -i) is the vowel /i/, apparently euphonic. The pronoun objective case suffix $-n^{y}$ comprises the last element of a demonstrative suffix to denote the 'objective' case of a noun. The first elements of these suffixes are identical in form and in meaning to the consonantal elements of the locative prefixes of the verb (450) and of the demonstrative pronouns (543).

Either the bare case suffix or the demonstrative suffix may be attached to the noun. The demonstrative suffix is commonly used to identify or specify someone or something previously mentioned, and is best translated as 'this,
that，the＇．The demonstrative suffix can be used syntactic－ ally to denote a nominalized clause（801．2，801．3）．

1．-c ＇subject＇This suffix marks the noun as being the subject of a（usually）following verb．A noun can func－ tion，however，as subject of a verb without the suffix． It is not usually attached to a noun ending in more than one consonant or in／t／：

$$
\begin{aligned}
& \text { wác 'the, a house' } \\
& \text { xác 'water' } \\
& \text { s?ákc 'the, a woman' } \\
& \text { apásc '(the) men' }
\end{aligned}
$$

2．Unmarked＇objective＇The noun is unmarked when it is the direct or indirect object of a verb，when it indicates possession of a following noun，or when it is in apposition with a following noun：
s？ák＇woman＇
apá＇man＇
xṭpá＇coyote＇
ská．＇bowl＇
（See 811，814， 861 for examples of the
＇objective＇in syntactic constructions．）
3．$-\mathrm{I}^{\mathrm{y}}$＇in，into，inside＇
wáł ${ }^{\text {y }}$＇in，into the house＇
xá⿱㇒士口儿 ${ }^{y}$＇in，into the water＇
tín $\mathrm{n}^{\mathrm{y}}$＇in the tub＇
ma． $\mathbf{I}^{y}$＇in the sky，in heaven＇

This suffix has a figurative and somewhat special meaning when attached to nouns derived from verbs by no overt process (723). It is possible here to consider - $\mathrm{I}^{\text {Y }}$ a derivative suffix, but it does not seem necessary to do so, as nouns can be derived from verbs without an overt derivative marker:
 the vicinity of'

$$
\begin{aligned}
& \text { máti 'on, along the floor' } \\
& \text { papi•li 'on the paper' } \\
& \text { lamé•si 'on the table' } \\
& \text { sxlápi 'on the blanket' } \\
& \text { cáy 'in, at the center' } \\
& \mathrm{n}^{\text {y wáy 'at my house' }} \\
& \text { má•y 'on, at the top' }
\end{aligned}
$$

5. -m 'with, by means of; direction toward; in or to a specific location; accompanied by' The specific meaning of this suffix is determined by the noun to which it is attached:
i•šá•主血 (payá•) '(I catch) with my hand' cúm 'between; 'in, toward the center' márm 'into the sky (in a specific direction)' cuk $^{W_{i}} \cdot m$ 'to the grocery store' wám (kuxáy) 'I (I paint) the house' cxám (á•x) '(I'm going) north' (s?ákc) apám '(a woman) accompanied by a man'
6.     - ks 'direction away from; in or to a general or unspcified location'

> laká•yk 'from town'
> $n^{\text {y}}{ }^{\text {ák }}$ 'east (lit. 'from the sun')'
> špáyk 'alongside of'
(xá) má•k (cu•wá) '(He continued to sit)
in an unspecified place above (the water)'
531. Demonstrative suffixes. These suffixes are analyzed in 530.

$$
\begin{aligned}
& \text { 1. -pic 'this'; -sic 'that' } \\
& n^{y} \text { cá•pic 'the, this mountain lion' } \\
& \text { payíspic 'my coming' }
\end{aligned}
$$

$$
\begin{aligned}
& \text { (apá) } \mathrm{k}^{\mathrm{W}} \text { ráspic } \quad \text { (the man) whu said, did it' } \\
& \text { spwé•Isic 'those spurs' } \\
& \text { 2. }- \text { pin }^{y} \text { 'this'; - } \sin ^{y} \text { 'that' objective } \\
& \text { s?ákpin }^{y} \text { 'this woman' } \\
& \text { ašitsinin 'that (person) alone over there' } \\
& \text { sxutúsșin }{ }^{\text {y }} \text { 'her spitting, that which she has } \\
& \text { spat over there' }
\end{aligned}
$$

$\mathrm{n}^{\mathrm{y}} \mathrm{awí} \cdot$ umáxpin $^{\mathrm{y}}$ 'his present and future
acts of eating'
3. $-\mathrm{pi}^{\mathrm{y}}{ }^{\mathrm{y}}$ 'in this'; -și玉 ${ }^{y}$ 'in that'
xápi ${ }^{\text {y }}$ 'in the water here; in this water'
$n^{\mathrm{y}} \mathrm{awrásiz}^{\mathrm{y}}$ 'in that house of his'
4. -pi 'at this'; -ṣi 'at that'
wápi 'at this house'
$n{ }^{\mathrm{y}} \mathrm{y}^{\mathrm{y}}$ awáṣi 'over there at his house'
540. Pronouns. Pronominal prefixes occur only with the personal pronouns. First and second person pronouns and third person pronouns which refer to animate beings take only the suffixes $-c$ and $-n^{y}$. The definite pronouns occur only in two forms with no apparent distinction in their use, the final elements of which ( -p and $-\mathrm{n}^{\mathrm{y}}$ ) are probably to be considered as objective suffixes, although -c can be suffixed to either form. The indefinite pronouns, the demonstrative pronouns, and the third person pronouns referring to other than animate beings take the same set of case suffixes as the noun.
541. Personal pronouns. The following are the personal pronouns that are used when the reference is to animate beings. The first person objective suffix is -p rather than $-\mathrm{n}^{\mathrm{y}}$. Second and third person pronouns resemble the locative-temporal verb prefixes (450) as well as the demonstrative pronouns (543). The meanings of the roots -pú- and -şá- are, respectively: 'nearby' and 'far away'. The use of the prefix $u$ in third person is anomalous, as it otherwise occurs
only as a subject prefix to the verb (412). u- refers to someone not yet identified by the speaker and apparently occurs only with -pú-. $n^{\text {n }}$ - has reference to some one previously mentioned by the speaker or hearer, or to someone identifiable without further reference by the hearer.

|  | Subject | Object |
| :---: | :---: | :---: |
| First person | $\mathrm{n}^{\text {ª }}$ - c | $\mathrm{n}^{\mathrm{y}}$ áp |
| Second person | mapúc | mapún ${ }^{\text {y }}$ |
| Third person | $\mathrm{n}^{\text {y }}$ púc | $n^{\text {y }}$ pún ${ }^{\text {y }}$ |
|  | $\mathrm{n}^{\text {Y }}$ Ṣác | $\mathrm{n}^{\mathrm{y}}$ sán $^{\text {y }}$ |
|  | upúc | upun ${ }^{\text {y }}$ |

541.1. Impersonal and inanimate reference. -pui- and -ṣa with the prefix $\mathrm{n}^{\mathrm{y}}$-, and -pú- and -pá- with the prefix $u$ - may take the other case suffixes (in addition to $-c$ and $-n^{y}$ ) when the rererence is impersonal (e.g., time, place) or inanimate. -pá- and -ṣá- can attach -y without $n^{y}$ - or u-: $n^{\mathrm{y}}$ púy 'here, at this place (known to both of us)'
upúy 'at this place (which I will identify forthwith)'

(wa) $n^{y}$ șá $^{y}$ 'in that (house) over there' $n^{y}$ ṣám 'to that place, up to that time, and then'
$n^{y}$ púm 'to this place, until this moment, and now'
páy 'here'
upáy 'at this place close by'
ṣáy 'there'
542. Definite pronouns. The definite pronouns refer to a specific person or thing. They are: $\operatorname{lu} \cdot p$ and $l u ́ \cdot n^{y}$ 'something, someone, what, who'. Either may occur as the form of the objective case. The only case suffix which may be attached is $-c:$

$$
l u ́ \cdot p c \text { and } l u u^{\prime} \cdot{ }^{y}{ }_{c}
$$

543. Demonstrative pronouns. The stems of the demonstrative pronouns are: pí- 'this nearby', pú-- 'that nearby', and şú•- 'that far away'. They can take the prefix u-, but not $n^{y}-$ :

$$
\begin{aligned}
& \text { píc 'this une nearby (subj.)' } \\
& \text { şú•c 'that one far away (subj.)' } \\
& \text { pú•n }{ }^{\text {y }} \text { 'that one nearby (obj.)' } \\
& \text { pík 'to this general area' } \\
& \text { pím 'to this specific place' } \\
& \text { pí: }{ }^{\text {y }} \text { 'in this one, in this place' } \\
& \text { uṣúc 'this place (subj.) } \\
& \text { ușú•主 }{ }^{\text {y }} \text { 'in that place' } \\
& \text { upím 'to this place' }
\end{aligned}
$$

The suffix -i (-y after vowels) is not used with the demonstrative pronouns. Instead, the third person inanimate pronoun is used: (mát) $\mathrm{n}_{\text {fíáy }}$ 'in that (land)'.
544. Indefinite pronouns. The stem of the indefinite pronoun is maká-. It takes any of the case suffixes, including the demonstrative suffixes:

```
makác 'someone, who (subj.)'
makán}\mp@subsup{}{}{Y
makáł̇` 'in something, in what'
makám 'to some place, to where'
makák 'from some place, from where'
makáy 'at some place, at where'
makápic 'which one, whichever one (subj.)'
makápin'y 'whichever one (obj.)'
makásiz` \ 'in whichever one over there'
```


## 600. DERIVATION: THE VERB

610. Verbs derived from verb stems
611. a- 'active' An active verb stem can be derived from any stative verb by means of a- which occurs in aecond position (see Appendix I). An active stem thus formed is bound and is always accompanied by an instrumental prefix, usually c-, s-, or š-. (See 614.1 for use of a- with active verbs.):

$$
\exists^{Y} \text { áp 'be hot', caz }{ }^{\mathrm{Y}} \text { áp 'I heat' }
$$ šáy 'be greasy', mcašáy 'you grease, (e.g., the car, frying pan)'

šit 'be one', ca•šít 'he arranges one by one' $k^{W}$ áš 'be brown', cak ${ }^{W}$ áš 'make brown' kúż ${ }^{Y}$ 'be long', cakúz ${ }^{\text {Y }}$ (or šakúz ${ }^{\mathrm{Y}}$ ) 'I lengthen' xmá $\boldsymbol{z}^{\mathrm{Y}}$ 'be white', mcxamá• $\mathrm{z}^{\mathrm{y}}$ 'you whiten' xwák 'be two', sxa'wá•k 'he arranges in pairs' (Note distributive object plural)
611.1. wa- 'causative' This prefix is analyzed as the morphophonemic result of the juxtaposition of the prefixes u-- (614.3) and a- (6II, 213). It occurs in second position. Its meaning is 'to cause someone or something to assume the attributes of, or to perform the action denoted by, the verb stem'. This prefix is not used with stative verb stems: páṣ 'I touch', pwapáṣ 'I make him touch' Şák ' carry by the handle', pšwa?ák 'I make him carry by the handle'
má 'I eat', pwamás 'I feedhim, make him eat' (Note dist. obj. plur.)
lu?úy 'he plays', plwa?úy ' make him play' xPa•p 'I'm jealous (w.s.)', pxwa?a•p I make her jealous'
Šmkir 'I'm jealous (m.s.)', pšmak ${ }^{W}$ ír 'I make him jealous'
612. i.- ( $y$ - before vowels; see 211) 'be, become' This prefix used singly denotes the subject of the verb as assuming the attributes of , or performing the action indicated by, the verb stem. Accompanied by an instrumental prefix, its effect is causative, with a meaning similar to wa- (611.1). It occurs in second position. This prefix can derive an active verb from a stative verb, although it is not as common a method as a- (611). i•- with a similar meaning is a moderately productive prefix for deriving verbs from nouns (622):
xáy 'be wet, moist' (from xá 'water'), i•xáy 'I get wet, it is soupy'
skmírq 'be slick, slippery', ski•mírq 'become slick, slippery'
šáy 'be fat, greasy', yušáy 'he becomes greasy' (/i•/ before a vowel becomes /y/; see 211.)

The prefix may induce a simultaneous plural inflection and/or slight modification of the meaning of the primary stem: mšyáyp (from mšyá• 'I fear'(?)) 'I'm, its dangerous', mši•yá $y p$ 'I'm, it's frightening'
má 'I eat', ivqá 'I dance'
wí• 'I see', mci•wíp 'we hold a meeting' (lit.,
'we become seen by each other')
mxán 'look at, watch', mi•xá•n 'it is good, pleasant'
páṭ 'I lie down', i•pát 'I become alive, active'
pá•m 'I arrive', pyá•m 'I move back', pšyá•m 'I move him back' ( $p$-in the first two forms is derivative (614.4) but inflective (411; 413) in the latter.)

Segmentation of i*- often results in bound stems or stems which do not occur other than with this prefix:
i'páy ' rise from the dead' (undoubtedly related to apá 'man' and spá 'I emerge')
xlikúy 'it is, I am exciting'
sri‘wí• 'I compare, contrast'
pri•wí 'it's, I'm the same, similar'
xi'púk 'I'm, it's first'
612.1. ya- Although not of common occurrence, this seems to be the combination of the prefixes i-- and a-. The following are the only known verbs with this prefix:
yaxát 'I'm greedy', yuxát 'he's greedy' (obviously deaived from xát 'dog', probably by means of the intervening (but unattested) i•xát 'I become a dog')
yawíł' 'I'm filled up, sated', myawizy 'you're sated' yawár 'be hungry' (impersonal only, e.g. $n^{\mathrm{y}}$ á•p yawár 'I'm hungry' mapún ${ }^{\text {Y }}$ yawár
you're hungry', apá yawár 'the man's hungry') yaráw 'I'm quick' (cf. ráw 'it flows' and aráw 'I'm fast')
613. $n-, n^{y}-\quad$ diminutive' It is not certain whether there is any distinction in meaning in the use of these two prefixes. $n^{\mathrm{y}}$ - is found only with the two stative verbs $I^{\mathrm{y}}$ cás 'small (in size)' and rmás 'young (in age)'. $n$ - never occurs with these two verbs, but may occur with a few other stative verbs and the auxiliary verb yú 'be'. There is one instance of its occurring with a pronoun: unpáy (upáy 'at this previously unmentioned place') 'a little here'. Either prefix can denote, though not necessarily, a quality of affection or tenderness. The symbolic change of / $\mathrm{c} /$ to / $\mathrm{t} /(618$ ) is always accompanied by one or the other of these prefixes. They occupy the first position class:

$$
\begin{aligned}
& \text { xncáq 'it's bad' } \\
& \text { xuncáq 'he's ugly' } \\
& \text { rn }^{\text {yás }} \text { 'it's young' } \\
& \text { mºúr 'it's spherical' } \\
& \text { I }^{y}{ }^{y} \text { cáś 'it's small' }
\end{aligned}
$$

The diminutive prefix can be attached only to the auxiliary verb:

$$
\text { unyúm ruPírxan }{ }^{\text {y }} \text { 'he was very skinny' }
$$

or a sequence of verbs, including the auxiliary: xuncáqxan ${ }^{\text {y }} \mathrm{ka} \cdot$ nyú $^{\text {lunPámxan }}{ }^{\mathrm{y}}$ 'none whatsoever was as bad as he' (lit., 'he-was-little-bad-very he-was-little-in-any-manner he-did-not-little -say-very')

614．Instrumental prefixes．The following prefixes are for the most part causative in nature．Most of them denote， in varying degrees of clarity and concreteness，the means or manner in which the action expressed in the verb root is per－ formed．They occupy the fourth position class．Most of the consonantal prefixes freely combine with u－－and a－．Such com－ binations are discussed below（614．1）．Although consisting of two phonemic elements，sk（ ${ }^{W}$ ）－is considered one prefix because of its precise denotation．Segmentation by form alone would allow the combination of several of tie consonantal pre－ fixes in numerous instances．Such segmentation is not re－ sorted to unless a semantic relationship can be established with the general meaning of the prefix．There are a number of recurring prefixal elements which invite segmentation，but whose semantic classifications are somewhat obscure．These are described in 615．The prefixes are presented in alphabetical order：

1．c－＇general causative＇This prefix is extremely common and apparently quite productive in combinations with u－－ and a－（614．1）．It is only moderately common when used singly： crª́k＇bend into a curved shape（e．g．，a stick）＇ eqúlqúl i＇I stack（books）＇ pciír＇I startle him＇ cmwás＇I flesh a hide＇ cmwár（also cmawár）＇I mash，crumble＇ pcuk ${ }^{W}$ ír＇he follows him＇ cxáṣ＇I whittle，scour，scrape，scrub＇ cxupá⿱亠䒑十 ${ }^{\text {y }}$＇he pulls＇
cxpí王 ${ }^{y}$＇I make stick＇
2．$k$－＇do with the foot or with a large instrument＇
kmwár＇I crush，smear with my foot＇
kmá⿱㇒士 ＇I sharpen，grind（e．g．，an axe，saw）＇
kPúy＇I cut hair＇
kyá•r＇I kick＇，ki＇wár＇he kicks＇（There are two prefixes here：$k$－and i－－，attached to the bound stem－a＇r，possibly derived from or related to á＇go＇．Differences in the forms are the result of morphophonemic rules 212 and 213．）

3．u•－No specific notion appears to attach to this suffix other than＇performance of an action＇．
u•pák＇I carry on my shoulders＇
$u \cdot x^{W}$ ák＇I break（a cup，glass，egg）＇
u•kúp＇I open＇
u•máz＇I powder my face＇
u•méa＇I sweep the floor＇
awpún＇he hoes＇（For third person see 412）
$m u \cdot n^{y_{i}} \cdot \mathrm{r}$＇you write＇
4．p－＇do on foot or while walking；do，occur with force，tension，pressure＇
p？á．＇I stand＇
pu？áw＇he walks＇
pkát＇I cut off by walking，take a shortcut＇
mpša．＇you guard，watch＇
pnáp＇I hide in my hand＇
mpṭáx＇you slap＇
puㅁút＇he closes his eyes＇
puṭúk＇he winks his eye＇
pṣí•＇I urinate＇
pssit ${ }^{\text {t }}$＇I break wind＇
pcpák＇it bursts＇
p－appears to be segmentable in a few other forms without the above semantic notions：
pwát＇it＇s used up，all gone＇（cf． $\mathrm{n}^{\mathrm{y}}$ wát ＇I＇ve finished（e．g．，a task）and suwát＇I＇ve finished talking＇）
pkwát＇I sort out things，pick up（a bunch of things）＇
plík＇I taste＇
pł ${ }^{\text {y }}$ má ＇it＇s done，couked＇
prá•m＇it remains，is left over＇
pṭáw＇I spread things out＇
5．s－＇do in the mouth or by talking；general
causative＇This prefix is to be distinguished from the in－ flective plural prefix（42l）：
suyé．＇he sings＇
sxțú＇I spit＇
sx＂ár＇we laugh＇（This is the suppletive plural for u•ṣáy．s－could justifiably be considered a plural prefix here．）
ská．＇I carry in my mouth＇
sxyá⿱㇒士口 ${ }^{Y}$＇I spit out＇
mswá•r＇you＇re mean（because of what you say）＇
suwá 'he places in an upright sitting position'
spít 'I cover a house'
skát 'I pick (e.g., beans, cotton)' (cf. sukát 'I bite off')
smí 'I place (a long object)'
6. sk $^{w}$ - (before/i/ or /a/), sk- (before/u/ or a consonant) 'do by talking' Nuch talking is implied in many forms in which this prefix occurs and it could reasonably be argued that the element s- might better be considered the plural prefix:
pskin 'I ask him a question' (possibly from $i$ 'I say')
pmskwír 'you're teasing him'
sk ${ }^{W}{ }^{\text {á }} \cdot \mathrm{p}$ 'I pray'
pskupás 'he fired him'
skn ${ }^{\text {ýap }}$ 'I talk, discuss, gossip' (i.e., with someone. This is very likely a plural form of $\mathrm{kn}^{\mathrm{Y}}{ }_{\mathrm{a}} \cdot \mathrm{p}$ 'I tell, relate')
7. s- 'perform an action involving a definite sort of motion, e.g., in a revolving, rotating, or to-and-fro manner, or a motion involving close contact of objects'
şukán 'he escapes, runs away'
sk $^{W}$ inn $^{y}$ 'I pierce my ears'
$\operatorname{spk}^{W}{ }_{i}$ 'I screw'
s. $k^{W}$ ir 'I twist, screw'
(i•n ${ }^{\mathrm{y}} \mathrm{áa}^{\mathrm{X}}$ ) s $\mathrm{sx}^{\mathrm{W}} \mathrm{a}^{\prime} \cdot \mathrm{n}^{\mathrm{y}}$ 'I clear (my throat),
gワúl 'I wash clothes'
şnák 'I tie a knot'
sp?ák 'I hang up'
mṣwí 'you wipe'
ṣuwírq 'he steers (a car)'
ṣí•rq i 'I whirl myself around'
8. š- 'do with the hand'
šk ${ }^{W}{ }^{\text {ª́r }} 1$ 'I peel'
pškáp 'I pinch him'
šuk ${ }^{\text {wiz }}$ 'he's noisy'
Šmírmír 'I straighten'
šn $^{\mathrm{y}}{ }^{\text {á'x }}$ 'I dip up'
mšţáp 'you split, slice, cut, shell (e.g., peas)'
štíp 'I shoot, fire'
suxár 'he kneads'
š?úy 'I poke with my finger'
SKát 'I pick (e.g., grapes, cotton; cf. skát 'I pick'. s- denotes that the action is done with greater care.)
9. t- 'cause to change from one position to another' This is not a common prefix used singly. See 614.1 for examples in combination with $u$-- and a-:

ṭpáp 'I bow my head'
țxmPám 'I stoop over'
10. $x$ - 'do in a manner involving friction or close contact'
xṭúp 'I jump (over)'
xpít 'it is sticky, it sticks; I closed, sealed his, their lips'

$$
\begin{aligned}
& \text { xusí } \cdot \mathrm{I}^{y} \text { 'he blows his nose' } \\
& x \text { ca•主 }{ }^{\mathrm{y}} \text { 'I crawl' } \\
& \text { xpšíw 'it leafs out' } \\
& \text { xpṣú. 'I breathe on, blow with my mouth' } \\
& \mathrm{xk}^{\mathrm{W}}{ }^{2} \cdot \mathrm{k} \text { 'I yawn' } \\
& \mathrm{xn}^{\mathrm{y}}{ }_{\text {ú }} \text { 'I become infected' } \\
& \text { xsá•m 'it is almost' (cf. sá•m 'it is all') } \\
& \text { xuyán }{ }^{y} \text { 'he holds, carries in his arms' } \\
& \text { xs?ít 'I'm sex-crazed' }
\end{aligned}
$$

614.1. Combinations of prefixes. The consonantal prefixes occasionally occur in combinations (seldom more than two) that permit segmentation witn fairly clear semantic notions assignable to each, e.g., šp?á. 'I place something in a standing position', sxyáł ${ }^{\text {y }}$ 'I spit out', cxpák 'I fasten, hang up'. There are, however, numerous instances in which it is difficult to determine the semantic contribution of one or the other, or both, of the prefixal elements, e.g., xs?ít 'I'm sex-crazed', špšá 'I move (my place of abode)', xpcú•n ${ }^{\text {y }}$ 'I go to church'. There do not appear to be fixed position classes for such consonantal combinations.

Niuch more common is the combination of a consonantal prefix witha-, which is equated with the prefix a- 'active' (611) or with u-- (with the combining form -u-) 'performance of an action' (614.3). In addition to deriving active verbs from stative verbs, a- in combination with a consonantal prefix can form secondary stems from a few active verbs:
psawíw 'I showed him' (wí• 'I see') sarár 'I'm industrious' (rár 'I'm occupied with something')
psapát 'I laid him down'
(i•šá•王 ${ }^{\text {Y }}$ ) țaká•p 'we place our palms together'
(i•šá•五) caké•p 'we mix our hands together
(e.g., in a game)'

The combination of $u \cdot-$ (i.e., $u-$ ) and a consonantal
prefix is quite common. u-- has not been found to occur with x - or $\mathrm{s}^{-}$. It is especially common with c -:
cumíl 'I pour out'
cuqáw 'I fry (eggs)'
poucúk 'I pull his hair'
cusáq 'I slap mud on my face'
țuk ${ }^{W}$ án $^{\text {y }}$ 'I eat up, consume'
tux ${ }^{W}$ ís ${ }^{\text {r }}$ I swing my arm in preparation for throw-
ing'
țumák 'I turn my back'
šuk ${ }^{W}{ }_{i \neq}{ }^{\text {y }}$ 'I sew
šumán 'I open'
supuit 'I close'
sukát 'I bite off'
$\operatorname{sun}^{Y}{ }^{\text {ún }}$ 'I repeat, speak (a language)'
suwát 'I finish (a talk or story)'
skuyá• 'I'm generous'
pupít 'I stand blocking the way'
pucín ${ }^{\text {y }}$ 'I bump, nudge, kick (a ball), stub (my toe)'

```
kuxáy 'I rub'
kuxá"y 'I paint'
kukát! 'I saw (wood)'
cukát 'I cut (with an axe)' (cf. u*kát 'I
break, cut (in two pieces)')
```

615. Prefixes of uncertain status or of obscure semantic content. The semantic contribution of the following prefixal elements to the meaning of a particular form is considerably less evident than that of the instrumental prefixes described above. It may be that they were formerly productive prefixes of more common usage and are now petrified. Or they, or at least certain of them, may simply be non-segmentable consonantal elements of the root:
616. $x m$ - This prefix is possibly related to or derived from the verb xámxám i 'I drop, discontinue my work'. With effort one might be able to assign it the general meaning 'lacking some characteristic' in most of the following forms:
pxman ${ }^{\mathrm{Y}}$ áw 'I shod him' (xmn ${ }^{\mathrm{Y}}$ áw 'my shoes') xmkxá•p 'Mohave' (possibly to be analyzed rather as a compound: xá 'water', -m case suffix (530.5) k- derivative prefix (721), xá•p plural (421.6) of xáp 'enter, go in')
xmspu?á•p 'I turn something upside down' (cf. ṭu’áp 'I turn something upside down',
špొá•＇I stand something up＇）
xmwár＇it＇s not ripe＇（cf．mwár＇it＇s soft＇） xmxú•k＇be six＇（cf．spxúrk＇be eight＇and sa＇xú•k＇be ten＇）
xmxmúk＇be nine＇（ef．xmúk＇be three＇）
xmPúz＇be gray＇
i•yú xmpá•y＇I＇m blind＇（i•yú＇my eye（s）＇）
2． $\mathbf{I -}$ If this is a valid prefix，it may denote exer－ tion of pressure，or some sort of unpleasant or aberrant situation：

Imcu•xúm＇I cut off my hair，having become a widow＇（mc－is undoubtedly the reflexive pronominal prefix（413）．
$z^{W} \mathrm{~W}_{\text {ís }}$＇I squeeze（a lemon），milk（a cow）＇
¥xi•cúc＇be，become kinky（hair）＇（i•－＇be， become＇（？）（612），cf．xcúc＇Lycium pallidum squawberry＇）

Zupáy＇he lies on a pillow＇
モxmpú＇I belch＇
モxusú•s＇he sweats＇
3． $\mathrm{z}^{\mathrm{Y}}-\mathrm{On}$ account of its occurrence in the position class immediately before the root and after a pronominal prefix（410），$\Psi^{Y}-$ is justifiably considered a derivative prefix as well as an inflective positional affix（430）． Its semantic contribution as a derivative rrefix is，how－ ever，not evident．The following examples illustrate the
use of $z^{y}$ - in its possible derivative function:

$$
(s ? a \cdot \cdot k) m \underbrace{Y} \text { wís } \text { 'You (pl.) are like (women)' }
$$

$$
\mathrm{z}^{\mathrm{y} \text { már }} \text { 'I light a fire' }
$$

$$
\mathrm{mi}^{\mathrm{y}}{ }_{q} \text { áw } \text { 'you're bald' }
$$

$$
\text { mł }{ }^{\text {ykusááq }} \text { 'he (e.g., a cat) scratches you' }
$$

$$
\text { p¥ } y_{\text {wát }} \text { I char, scorch, scaldं; it is charred, }
$$ scorched, scalded'

4. 1- If this is a valid prefix, it may possibly be related to or derived from the non-referential definite inflective prefix lu- (462):
lxúx 'it is empty'
Icín ${ }^{\text {y }}$ 'it is shallow'
loúy 'I play' (cf. kPúy 'I cut hair' and š?úy 'I poke with my finger'

Imís 'be hairy, furry'
lpá 'I squee ${ }_{z}$ e a pimple', mlpá 'you squeeze a pimple'
splxáy 'I moisten my lips (with saliva)' (lxá 'saliva', xáy 'be moist')
5. $1^{\mathrm{y}}-1^{\mathrm{y}}$ - occurs in only two forms in the position class which renders it eligible for consideration as a derivative prefix, with no hint as to semantic content:
$I^{\text {y }}$ pák 'be light in weight'
$m I^{\text {Y cás }}$ 'you are small (in size)'
6. $m^{-} m^{-}$is a fairly common prefixal element prior to the stressed syllable. Its frequent occurrence provides
few or no clues as to its semantic content. It occurs as the first element of numerous stative verbs, but is also present in a prefixal position in active verbs: mwal ${ }^{y}$ 'be soft' (cf. Spanish muelle) mwál 'be loose (e.g., a drawer)'
mwár 'be crumbled, crumbly' (This and the above two forms may possibly be related symbolically in the alternation of the final consonant; see 618.)
mxán 'I observe, watch (e.g., television) pmxán 'I love, like him' mi•xá•n 'it is good, pleasant (e.g., to the taste)'
myú•Iq 'be sweet to the taste'
$m n^{Y}$ á. 'be delicious, taste good'
$\mathrm{mn}^{\mathrm{Y}}{ }^{\prime} \mathrm{x}$ 'be too heavy to lift'
mpár 'I know how, learn'
mpín ${ }^{\mathrm{y}} \mathrm{q}^{\prime} \mathrm{I}$ skin (an animal)'
mmxú•王 'you roast (corn)' (Initial m-is pronominal prefix (412).)
7. $n$ - The consideration of $n$ - for derivative status is based solely on its occurrence in one stem:
nmák 'I quit, leave' (cf. impersonal intransitive mák 'be behind')
mnmák 'you quit, leave'
8. $r-r$ is relatively common in a prefixal position. If it is a valid prefix, its meaning is not revealed in
the forms in which it occurs. (See, however 618.) It occurs in a few instances with the prefixal element pand once each with s-, sik- (perhaps the two instrumental prefixes s- and $k-$ ), and $x-$ :
skruwí• 'be in the middle' (apparently imper-
sonal only)
mpri‘wí• 'you are similar to, resemble'
mpryáp 'you turn over in bed'
mxrpáy 'you are near, close by'
sri•wí• 'I compare, contrast (e.g., material
for a dress)'
roár 'be deep'
ryár 'be circular and flat (e.g., a tortilla)'
rpúy 'I do secretly, disappear, it is secret' ( $n^{y} n^{y}{ }^{\mathrm{y}} \mathrm{a}^{\mathrm{y}}{ }^{\mathrm{y}}$ ) mrqíw 'you choke, strangle (his neck)'
rsa.w 'be thin (e.g., hair on the head)'
r`ák 'I (a man) am old' r?úr 'be spherical' r`ír 'be scrawny, skinny'
616. Compounding. Except for the special type of compounding, viz., reduplication (617), compounding as a derivative process for verbs is virtually non-existent. Or at least the language may be analyzed so as to exclude it as an active process. There are, however, several forms, mostly bound, which appear to be verb stems and which conjoin with other verb stems in such a manner that warrants considering the process compounding.

1. -wí 'seem' (?) This may possibly be equated with the root appearing in such forms as $\mathrm{z}^{\mathrm{y}_{\text {wí }}}$ ' 'be like, resemble', sri•wí• 'compare, contrast', pri•wí 'be similar to', and cawí•m 'be indifferent, equivalent to':
i•?í•pi•cwí ' it seems I've heard it before'
(-i•after /p/ is inflective; see 483.)
m’í•mwí. '(I think) you've said it before' áymwí• 'he said it before' máx ${ }^{\prime} y_{\text {wí }}$ - 'I crave' $/ \mathrm{I}^{\mathrm{y}}$ / is probably the desiderative suffix (485.1) and not the derivative prefix (615.5).)
2. $-\operatorname{xan}^{\mathrm{y}}\left(-\operatorname{xan}^{\mathrm{y}}\right)$ 'be very (much)' -xan ${ }^{\mathrm{y}}$ is augmentative in function and is somewhat suffixal in its unstressed position following a verb stem. However, it appears to be a verb stem in its own right as it may attach the negative prefix (470), in which case it is a stressed syllable:
mi •xá•nxan ${ }^{\text {y }}$ 'it tastes really good'
$n^{y}{ }^{1} \cdot$ 土 $^{y}$ xan $^{y}$ 'it's very black'
li••í•pmxan ${ }^{\text {y }}$ 'I don't hear at all'
pmu•yá•xan ${ }^{\text {y }}$ 'I really know him, I know him well'
awyá•xan ${ }^{y}$ 'he knows for sure, knows all'
awyá•Iuxán ${ }^{y}$ 'he doesn't know at all' (It is
interesting to note that negation is accom-
plished here without the suffixal element
-m (470), but by what is formally the non-
referential definite (462).)
3. -xú•c -xú•c is known to occur only with imperatives and is best translated as 'please'. It is considered a verb stem on account of the stressed syllable. It is possible to consider the element $-c$ the perfective-sequential suffix (485.4), but such consideration is entirely ad hoc as the stem has not been found to occur with any of the other inflective suffixes: kyaráwxú•c 'Please hurry up: Be quick, please:' ká•n ${ }^{y} x u ́ \cdot c$ 'Go too, if you like. Please go!' kkúz ${ }^{\text {Yú }}$ •c 'Please climb!' kyí•n ${ }^{\mathrm{y}} \mathrm{xú} \cdot \mathrm{c}$ 'You come too, if yuu like.'
4. -yáwp This element, which is considered as an impersonal intransitive verb stem, is known to occur only with the two elements yú- and wí- forming respectively the compounds: yúyáwp 'be identifiable by sight' and wíyáwp 'be identifiable by feeling'. yú- without hesitation may be assumed to be the root of the noun meaning 'eye' (cf. i•yú 'my eye'). None of the known semantic notions of the phonemic sequence /wi•/ in any of its vccurrences deals with the notion of 'feeling'. It is possible that it may be equated with -wí• 'seem' (616.1). -yáwp is very likely related to the verb u•ya. 'I know'.
5. kí•'Is that so? Well, what of it? So what?' kí may occur alone with the meaning 'Is that so?'. It may occur as what appears to be the second element of a compound: pá•ki' 'So it's true he's going along, huh?', although it could ae well be considered a verb phrase:
pá•kí•. It is tempting to analyze kí• as the imperative of the verb ísay' followed by the inflective third position suffix -i•(483). Although the semantic content of the form invites this analysis, it is probably incorrect as it does not explain the absence of $/ \mathrm{p} /$. The expected form in such case would be kPi• (cf. mPí 'you say', kPí 'Say:'). It is considered in this analysis as an impersonal intransitive verb which may comprise one of the elements of a compound verb:
(pxáa) m?íaki. 'Do you think it's (all right, good)?'
şupíalakí. 'So she's washing, huh?' pa•nákakí• 'He killed him, huh?' Sumé•kí• 'He's sleeping, is he?' (/a/ plus /a/ gives /a•/ (214))
awsápakí• 'Oh, they're laughing, are they?' (awṣáp is collective plural of awṣáy.) mi•Pípkí• 'You heard that, didn't you?' /a/ preceding ki• is probably to be considered the interrogative suffix -a (801.7), although its use is not obligatory with kí• An elenent which is possibly equated with one of the alternate forms of the referential indefinite (440), viz., $n^{\mathrm{y}} \mathrm{a}$, can occur in a prefixal position to kí • :
lu’áxn ${ }^{\text {y }}$ akí $\cdot$ 'What would he suy?'
lu?íxn ${ }^{y}$ akí• 'What can I say? How can I say it?'
luPin ${ }^{\mathrm{y}} \mathrm{xn}^{\mathrm{y}}$ akí. 'How would I say it too (what someone else has said)?'
6. Reduplication. Reduplication is a speciaI type of compounding consisting of the repetition of a primary verb stem winose phonemic shape is most comonly CVC. A reduplicated verb usually denotes a repeated or an intermittent action. Many reduplicated verbs do not occur in their non-reduplicated form. Reduplicated verbs are inflected in the manner of other verbs (400) or periphrastically, in which case they consist of verb phrases (822.1). The reduplicated verb is formally an impersonal intransitive verb, undergoing no inflective process except modification of the root vowel for plural impersonal subject. Inflection for person takes place in the imnediately following unstressed form of the auxiliary verb i 'say'. A large number of reduplicated verbs are impersonal in reference and are not inflected for person. The following are periphrastically inflected verbs: qípqíp i 'be ragged, in strips'
 ssíl ${ }^{\text {Y̌inil }}{ }^{\mathrm{y}}$ i 'be long and thin' múrmúr i 'I shake my head to indicate "no"'

 lápláp $i$ (also láplá•p i) 'be flat' támktámk i (also kámkkámk i) 'it flashes intermittently' (cf. támk 'it flashes once') páqpáq i 'it makes a popping nose' cáqṣcáqṣ a 'he hops' (cf. cáqṣ a 'he jumps')
$x^{W}$ ª́y ${ }^{W}$ ª́y mi 'you whisper'
 ṣáqṣáq i 'be itchy (e.g., a blanket)'

Reduplicated verbs with a preceding instrumental prefix, with one known exception: cqúlqúl i 'I stack (e.g., books)', are inflected for person in the ordinary manner: pcawín ${ }^{y}$ win $^{\mathrm{y}}$ 'I shake him' mcalílifíl 'you shake (e.g., a tree)' Šmírumír 'he straightens (something)' (cf. mírmír i 'be straight')

The instrumental prefix may replace the first consonant of the verb:
šírmír 'I take aim' (presumed to be derived from mírmír i 'be straight')

The first consonant of the verb may be modified upon attaching the prefix:
skárxár 'I break into small pieces' (sxárxár is also possible)

At least two reduplicated verbs which do not have an instrumental prefix are inflected for person in the ordinary manner (there are undoubtedly others): mílmíl 'be long and thin (e.g., a pencil)' mílumíl 'he is long and thin' (Reference is to a fat and sleek coyote.) mínumín 'he is long and thin' (apparently no difference in meaning from mílumíl)
618. Consonant modification and sound symbolism. The alternation of consonants in a derivative function is
a productive process primarily amone the laterals，specific－ ally $/ \exists^{\mathrm{Y}} / \mathrm{L} / \mathrm{l} /$ ，and $/ \mathrm{I}^{\mathrm{Y}} /$ ，and possibly also $/ \mathrm{r} /$ ．The exact nature of this alternation is not clearly under－ stood．

There is one clear case of a stative verb wita／l／ corresponding to an active verb with $/ \mathrm{I}^{\mathrm{y}} /$ ：
lúi＇it boils＇， $\mathrm{X}^{\text {yí }}{ }^{\text {y }}$＇I boil＇（cf．calúl ＇I boil＇，apparently no difference in meaning）

The same may be true of the following verbs，if they are related：
xcál＇be bereft，uncared for＇，xcá•主 ${ }^{y}$＇I crawl（e．g．，a baby）＇

The opposite situation occurs in the following：
$\mathrm{z}^{\mathrm{Y}}$ áp＇be hot＇，líp＇it flames up，I catch fire＇ The active verb $k ? \mathfrak{i} \cdot \mathbf{Z}^{\text {I }}$＇I string beads＇is obviously related to the noun sak？úl＇beads＇，whicn may be derived from an obsolete stative verb．

All of the following are stative verbs in which there are alternations of $/ \mathrm{I}^{\mathrm{y}} /, / 1 /$ ，and $/ 1^{\mathrm{y}} /$ ．Note the abnormal position class of the third person pronominal prefix in four of the forms：
xmá•主 ${ }^{\text {y }}$＇be white＇，xumá•王 ${ }^{y}$＇he is white （e．g．，a horse）＇，xmwáz ${ }^{y}$＇he is pale－yellow， off－white（e．g．，a horse）＇
xmá•1 ${ }^{y}$＇be light－complexioned＇，xmbral ${ }^{y}$＇he is light－complexioned＇
xmál 'he grey-haired', xmwál 'he is greyhaired'

xpsíwà x xmá•l 'be light-blue'
 (e.g., a horse)', $n^{Y_{w i ́ z}^{y}}{ }^{y}$ 'he is darkcolored (e.g., a horse)'
$a n_{i}{ }^{\prime} \cdot I^{Y}$ 'I am dark-complexioned', $n^{y_{w i ́ l}}{ }^{\mathrm{y}}$ 'he is dark-complexioned'
$n^{\text {Yíl. }}$ 'honey' (This may possibly be a related form.)
xpsíw $Z^{\mathrm{Y}} \mathrm{n}^{\mathrm{y}} \mathrm{Y}^{\prime} \cdot \underline{Z}^{\mathrm{Y}}$ 'be navy-blue'
Other examples in winich the alternation of laterals probably performs a derivative function are:

> Z $^{\text {ª́. }}$ 'fatner's sister's son (m.s.)', $\mathrm{I}^{\mathrm{Y}} \mathrm{a}^{\prime} \cdot$ father's sister's daughter (m.s.), father's sister's child (w.e.)'
'toothpick'
 ( $\mathrm{p}-\mathrm{is} \mathrm{probably} \mathrm{the} \mathrm{instrumental} \mathrm{prefix} \mathrm{(614.4)}$ meaning 'do with force or pressure')

In a number of forms / $r$ / following the vowel of a stressed syllable alternates with one or more of the laterals in some sort of derivative fashion. /r/ in this position, at least with certain roots, seems to have a symbolic meaning of 'extension in space or time':
kúz ${ }^{\text {Y }}$＇be long＇，kúr＇be distant（in time or space）＇（cf．kúr主 ${ }^{\text {y }}$＇in the distance＇）， mkúr＇my head＇
s？í⿱一土⿰⿺乚一匕${ }^{y}$＇be salty＇，s？ír＇salt＇
mpá⿱亠乂⿰习习 ${ }^{\text {y }}$＇tongue，my tongue＇，şupá⿱亠䒑十 ${ }^{\text {Y }}$＇I chew＇， mpár＇I learn，know how＇
mwál ${ }^{\text {Y }}$＇be soft＇，mwál＇be loose＇，mwár＇be crumbled，mashed（e．g．，potatoes）＇
pa‘máz ${ }^{y}$＇he burns him（who is a corpse）＇，
$\mathrm{z}^{\text {ymár }}$＇light a fire＇
The symbolic meaning of $/ r /$ suggested above is evident in the following，for which there are no known alternating forms with a lateral：
$u \cdot x^{W}{ }_{i} \cdot r$＇I string out＇，$a w W_{i ́ r}^{W}$＇a fence＇
ṣ̂úr＇I point with my finger＇
yu？ár＇（a piece of）string＇
$c_{\text {in }}{ }^{\text {y }}$ ár＇yesterday＇

cúr＇it rolls＇，kcúr＇a wheel＇
xír＇I tie＇
This symbolic meaning of $/ \mathrm{r} /$ may possibly be extended to its occurrence in prefixal position（615．8）．

Undoubtedly other consonants participate in alterna－ tions which have symbolic relevance．A few forms have mean－ ings which indicate that their symbolism is related to the meanings of the consonants in their function as instrumental prefixes．The following contrasting pairs and sets give
hints as to possible symbolic alternations which may occur: $q^{\text {wás }}$ 'be yellow', kwas 'be brown' $q^{W}$ áqš 'horse', $k^{W}$ ák 'deer' akúš 'I'm tall' (cf. kúz y 'be long' and kúr 'be distant')
$k_{i}^{W}{ }_{i} \cdot s$ 'be tough (e.g., meat)', $k_{i}^{W} \cdot s$ 'be thick (e.g., gravy, honey)' i•yá•ṣ 'I breathe', cxás 'I scrub, scrape, whittle', cmwás 'I flesh a hide' (cf. mwál ${ }^{\text {y }}$ 'be soft', mwál 'be loose', mwár be crumbled')
maṭk ${ }^{W}$ aṣá 'shadow', t tk ${ }^{W} i \cdot$ šá• 'shade (e.g., of a tree)'
xcal 'be bereft, uncared for', ( $k^{W}$ ák) xntil 'young (deer)' (n- 'diminutive' (613))
$1^{\mathrm{y}}$ cáš 'be little, small (in size)', $1^{\mathrm{y}_{n}}{ }^{\mathrm{y}}$ túš
 (/t/ has the symbolic meaning of 'tenderness, affection' in its alternation with /c/.)
620. Verbs derived from noun stems.
621. -y The use of this suffix is restricted to kinship terms and to a few other nouns the stressed syllables of whose roots end in $/ a /$ or $/ \mathrm{u} /$. The function of this suffix appears to be merely that of deriving a verb from a noun. It occupies the first position class. At least one stem with this suffix is known to function both as a noun and a verb:
$\mathrm{n}^{\mathrm{y}_{\text {wá }}}$ 'my house', $\mathrm{n}^{\mathrm{y}}$ wáy 'at my house; I inhabit, "I'm married"'
(Ambiguity as to word class disappears in third person: $\mathrm{n}^{\mathrm{y}}$ awá 'his house', $\mathrm{n}^{\mathrm{y}}$ awáy 'at his house', $\mathrm{n}^{\mathrm{y}}$ uwáy 'he inhabits')
For other nouns the suffix functions unambiguously as inflective or derivative:
máy 'on the blanket' (cf. i•mú 'be woolly, downy') Inflective
xáy 'be wet, moist' (cf. i•xáy 'it gets, I get wet') Derivative

As a large number of kinship terms end in /a/ or $/ \mathrm{u} /$, the suffixation of -y is a productive means for deriving verbs from them, often with accompanying shortening of a long vowel. Verbs derived from kinship terms are transitive only:
xká• 'my grandson (w.s.)', pxkáy 'I call him grandson, he is my grandson'
 him father, he is her father'
$1^{\mathrm{y}}$ á. 'my female cousin', pal ${ }^{\mathrm{y}} \mathrm{a}^{\prime} \cdot \mathrm{y}$ 'I call her cousin, she is my cousin', $n^{y_{a}} \cdot 1^{\mathrm{y}}$ a.y ${ }^{\prime}$ 'he, she calls me (a female) cousin' $\mathrm{n}^{\mathrm{y}}$ cá. 'my mother', $\mathrm{pn}^{\mathrm{y}}$ cáy 'she is my mother' $n^{y}$ kú 'my father (m.s.)', $\mathrm{pn}^{y}$ ukúy 'he is his father
Examples of nouns other than kinship terms from which verbs are derived by means of -y are:
xá 'water', xáy 'be wet, moist' ki•má 'ashes', ki•máy 'be ashy' $\mathrm{n}^{\mathrm{y}_{\text {wá }}}$ 'my house', $\mathrm{n}^{\mathrm{y}_{\text {wáy }}}$ 'I inhabit' s. $\mathrm{k}^{\mathrm{W}} \mathrm{i} \cdot \mathrm{yá} \cdot \mathrm{doctor}$, medicine-man', sk $\mathrm{F}_{\mathrm{i}} \cdot$ yáy
'I doctor, am a doctor'
šá 'bird', Káy 'be fat, greasy'
622. i'- 'be, become' This prefix is as productive in deriving verbs from nouns as from other verbs (612). If the stressed syllable of the root ends in /a/ (unattested for $/ \mathrm{u} /$ ), the prefix may be accompanied by the suffix -y , (621), with shortening of a long vowel. Its position class is second (see Appendix I):
mpút 'dust', mi•pút 'be dusty'
mú 'sheep, wool, blanket', i•mú 'be wooly, downy'
$k x u ́ \cdot n$ 'boy aged two to puberty', ki•xú•n 'I'm a boy ...'
xmí•k 'male from puberty to marriage', xyumík 'he is a male ...', colloq., 'he's a teenager'
$k^{W}{ }_{i}$. 'cloud', $\dot{i} * \mathrm{k}_{\mathfrak{i}}$. 'be, become cloudy' mát 'ground, land, soil, dirt, floor', i•mát 'it is, I am dirty'
$x^{W}$ á 'enemy', yux ${ }^{W}$ á 'he is an enemy, is hostile:,
 enemies'
mú•y 'palmtree', i•mú•y 'it becomes, I become a palmtree'

 yuk ${ }^{W}$ áp $\cdot$ '(the deer) has horns'

ṣ̊ír 'salt', și•?ír 'it turns to salt, I become salt-cuvered'

Accompanied by -y:
š?á• 'sand', ši P?áy 'be sandy'
cxá 'wind', ci•xáy 'be, become windy'
şá• 'girl from puberty to marriage', ṣi•xáy
'I am, become a female teen-ager'
623. No marker. A few kinship terms and the possessed form of the noun xát 'dog' can function as verbs without a derivative affix:
$\mathrm{n}^{\mathrm{y}} \mathrm{xát} \mathrm{t}^{\prime} \mathrm{my}$ dog, pet, domestic animal', $\mathrm{pn}^{\mathrm{y}}$ xát 'I have a pet, it is my pet'; $n^{y}$ axát 'his dog, pet', pny ${ }^{\text {y }}$ uxát 'He has pets, cattle, domesticated animals'
ṣ’áw 'my child (w.s.)', $\mathrm{n}^{\text {y }}$ ̣’áw 'you are my child, I am your mother', pgc?á•w 'they are my children'
$\mathrm{n}^{\mathrm{y}}{ }^{\text {súds }}$ 'my younger sister', $\mathrm{n}^{\mathrm{y}} \mathrm{n}^{\mathrm{Y}}$ sú•s 'I call you younger sister'
$\mathrm{n}^{\mathrm{y}} \mathrm{kú}$ 'my father (m.s.)', pmn ${ }^{\text {y }}$ kú 'you call him father, he's your father'
710. Nouns derived from nouns.
711. $n^{\text {T}}$ - 'animate possessive' This prefix is attached to a few alienably possessed nouns to denote animate possession. It occupies the second position class (see Appendix I):
mát 'land, ground', mn ${ }^{\text {y }}$ mát 'your land, country' wá 'house', $\mathrm{n}^{\mathrm{y}_{\mathrm{wá}}}$ 'my house' kmí 'bag, sack', $\mathrm{n}^{\text {y }}$ kamí 'his pocket'
Attached to the noun $\mathrm{x}^{\mathrm{W}}$ át 'redness', derived from the verb $\dot{x}^{W}$ át 'be red' (723), it denotes a body part:

A body part is derived when the prefix is attached to mri'k 'bean':
$\mathrm{n}^{\mathrm{y}}$ mrí•k 'my kidney', $\mathrm{n}^{\mathrm{y}} \mathrm{marí}^{\text {f } k}$ 'his kidney'
The stem of one body part is not known to occur other than with this prefix:

$$
\mathrm{n}^{\mathrm{Y}} \mathrm{q} \text { ál 'my testicles' }
$$

A considerable number of kinship terms whose stems are bound contain the prefix $n^{y}$-:

$$
\begin{aligned}
& n^{\mathrm{y}} \mathrm{xú} \cdot 1 \text { 'my younger brother' } \\
& \mathrm{n}^{\mathrm{y}} \mathrm{ca} \cdot \mathrm{C} \text { 'my mother (m.s., w.s.)' } \\
& \mathrm{n}^{\mathrm{y}} \text { คá. 'my father (w.s.)' } \\
& \mathrm{n}^{\text {y }} \text { ká. 'my mother's mother' } \\
& \mathrm{n}^{\mathrm{y}} \mathbf{k}^{\mathrm{W}} \mathrm{a}_{\mathrm{a}} \cdot \text { 'my mother's brother' } \\
& n^{\mathrm{y}} \mathrm{k}^{\mathrm{w}} \mathrm{a}^{\prime} \cdot \mathrm{w} \text { 'my mother's father' }
\end{aligned}
$$

$$
\begin{aligned}
& n^{\mathrm{y}} \text { má 'my father's mother' } \\
& \mathrm{n}^{\mathrm{y}} \text { mú• 'my mother's younger sister' } \\
& \mathrm{n}^{\mathrm{y}} \text { sí• 'my mother's older sister' } \\
& \mathrm{n}^{\mathrm{y}} \mathrm{p}_{\mathrm{p}} \cdot \text { ' 'my father's sister' }
\end{aligned}
$$

712. i•- 'animate possessive' This prefix appears to have the same function as $\mathrm{n}^{\mathrm{y}}$ - (711). It occurs with several nouns denoting body parts whose stems occur only with this prefix (except in certain compounds; see 714). It occurs in the second position class:

$$
\begin{aligned}
& \text { i•mí• 'my foot, leg' } \\
& \text { i•xú 'my nose' } \\
& \text { i•yá 'my mouth' } \\
& \text { mi•yú 'your eye, face' }
\end{aligned}
$$

$$
\begin{aligned}
& \text { ular: } \mathrm{n}^{\mathrm{y}} \mathrm{y} \text {-wáy } \text { 'his heart') }
\end{aligned}
$$

One primary stem is known which is not bound and from which is derived a body part:
cú 'the center', i•cú 'my belly'
In the speech of some informants there occurs the phoneme /i/ before certain stems which appear to be primary and which have more than one consonant preceding the vowel of the stressed syllable. Only a few nouns denoting body parts and kinship have this phonemic element (which is actually present in first person only; see 211) which may reasonably be considered an alternate form of the prefix i•-. It appears to be optional for those informants in whose speech it was recorded. Its optional occurrence, or rather its non-occurrence, may possibly result from
analogy with the second (and occasionally the third) person form in which there is no phonemic vowel prior to the stressed syllable. The following are the only forms in which this alternate form of the prefix is known to occur. It is interesting to note that all stems but one contain /x/:
ixká. 'my daughter's son' (cf. mxká• 'your daughter's son')
iskáw 'my father's younger brother' (cf. mskáw 'your ...')
xcác 'thorn', ixcác 'my spine' (cf. $n^{y} x$ các 'his spine')
xmá 'chicken', ixmá 'my penis' (cf. mxmá 'your penis')
ixckár 'my chest' (of. $n^{y}$ xckár 'his chest')
713. m- This prefix is not common and occurs most often in a few nouns denoting body parts. Its meaning is not apparent. With a few exceptions the primary stems to which m-attaches are bound. It is uncertain whether they can be equated with phonemically similar or identical stems with unrelated meanings:

$\mathrm{mx}^{\mathrm{w}}{ }^{\text {á }}$ 'badger' (cf. $\mathrm{x}^{\mathrm{W}} \mathrm{a}^{\prime}$ 'enemy')
714. Compounding. Compounding of nouns is a much more common phenomenon than compounding of verbs (616). The units of a noun compound can consist of freely occurring forms or of bound forms. As with verb compounds, it is sometimes difficult to determine whether an utterance should be considered a compound or a verb phrase. If nouns which are free forms are to be considered at all as forming compounds, then such constructions as wášká• 'tent', xmás’ák 'hen', mátyWaṣá 'shadow' undoubtedly are compounds. Although to a certain extent arbitrary, this analysis considers as a compound any fuxtaposition of freely occurring forms which denote a single semantic notion and to which final form can be attached a bare case suffix (530). This allows such a construction as mṣupás $z^{y}$ pawá•p 'coffin' to be treated as a noun phrase (810), which would be in apposition with an immediately following third personal pronoun. Compare the following: wámá• ${ }^{\mathrm{Y}}$ 'on the roof' máte ${ }^{W}$ roúre 'the world' (subj.) xmá•pác (xmá-apá-c) 'rooster' (subj.)
but:

> msupás $z^{\mathrm{y}}$ pawá•p $n^{\mathrm{y}}$ ṣá ${ }^{\mathrm{y}}$ 'in that coffin' pka?úy $\left.\mathbf{k}^{\mathrm{W}} a\right\urcorner a ́ \cdot s n^{\mathrm{y}}$ púc 'this barber, he' (subj.)

The use of the criterion of ability to attach a case suffix to characterize a compound must exclude the demonstrative suffix ( 530,531 ) ) as the latter can be suffixed to the final noun of a noun phrase:
pka?úy $k^{W} a^{2}$ á: $\operatorname{spin}^{\mathrm{y}}$ 'the barber here, this barber' (obj.)
$n^{y} \mathrm{mx}^{\mathrm{w}}$ án $^{\text {castá•ypiz }}{ }^{\mathrm{y}}$ 'in this hair oil'
as well as to constructions which are here treated as compounds:

$$
\begin{aligned}
& \text { wášká•ṣiły 'in that tent' } \\
& \text { šá•壬 }{ }^{y} \text { ckxá } \cdot p \text { șin }^{y} \text { 'that ring' (obj.) }
\end{aligned}
$$

Only a few examples are known of inalienably possessed compounds. The pronominal prefix attaches either to the second element:
wáswáy 'my wife', wámswáy 'your wife', wán ${ }^{\text {Twáy }}$ 'his wife'
(wá 'house', swáy possibly a verbal noun derived from the verb swá. 'I plant')
or to the first element:
i•yáwí' 'my tooth, teeth', mi•yáwí• 'your tooth', $\mathrm{n}_{\mathrm{i}} \mathrm{F} \cdot \mathrm{y}$ áwí• 'his tooth' (i•yá 'my mouth'; wí• has several meanings: 'mountain', 'I see', 'knife, metal'. It is undoubtedly a verb in this compound; see 721.)

Compounds whose first eiement is a noun with the derivative prefixes i-- (712) or $n^{\text {y }}$ - (711) are alienably possessed. Unless actually possessed, however, these prefixes are not present:
kmíṭa•ké•p 'pocketbook, wallet, purse' (kmí 'bag', $\mathrm{n}^{\mathrm{y}} \mathrm{kmí}$ 'my pocket', ta•ká•p verbal noun formed from the verb takáp 'put two
things together, in an adjoining position, t- instrumental prefix (614.9), g- 'active' (611, 614.1), -káp bound stem (of. cakáp 'I mix', kakáp 'I go, walk around')) šá•壬 ${ }^{Y}$ ckxá•p 'ring' (i•šá•王 ${ }^{\text {y }}$ 'my hand, arm, finger', ckxá•p verbal noun formed from the verb ckxáp 'I cause a large object to enter', c-instrumental prefix (614.1), k- instrumental prefix (614.2), xáp 'I enter, it enters')
mímckxá•p 'trousers' (i•mí• 'my foot, leg, toe', -m case suffix (530.5))

No compound is known to occur which consists of more than two juxtaposed nouns. Both elements of a compound are noun stems, either primary or secondary. The second, but not the first, element can be a verbal noun. The following are other examples of constructions which are considered compounds:
máṭká•m 'year' (mát 'ground'; ká'm may be related to a' 'go', although it is not certain whether /k/ is an inflective case suffix to mát or a prefix to the second element; -m is very likely a positional affix (530.4))
 xáz ${ }^{\text {Y }}$ awí. 'mirror, reflection' (xá 'water', wi' 'see'; it is not clear whether $/ \mathrm{I}^{\mathrm{y}} /$ should be considered a case suffix to xá
or positional prefix (430.1) to the verb wí• a-nominalizes the verb (722)) i•yáxa?á•w 'my jaw' (i•yá 'my mouth, face', xa?á•w a verbal noun derived from x?áw (unattested))
$i \cdot y a ́ l m i ́ s ~ ' m y ~ b e a r d, ~ m u s t a c h e ' ~(i \cdot y a ́ ~ ' m y ~ f a c e, ~$ mouth', lmíṣ 'be hairy')
wášká• 'tent' (wá 'house', šká• 'canvas') xmás’ák 'hen' (xmá 'chicken', spák 'woman') xmá'pá 'rooster' (xmá 'chicken', apá 'man') máṭk'aṣá 'shadow' (mát 'ground', k ${ }^{W}$ ªṣá unattested verbal noun possibly related to ṣá 'fog')
714.1. Bound first elements. There can occur in numerous kinship terms prior to the stressed syllable one of three unstressed elements, prefixal in nature, and with more or less definite semantic denotation. Their position relative to the root of the kinship term is prior to all derivative and inflective prefixes. These elements are considered as bound first members of compounds. 1. sii-, s- 'female' /i/ is not present in environments in which it is phonetically predictable (211):

$$
\begin{aligned}
& \text { wán }{ }^{\text {y }} \text { 'my siblir.és son (m.s.)' } \\
& \text { síwán }^{y} \text { 'my sibling's daughter (m.s.)', smwán }{ }^{y} \\
& \text { 'your ...', s. }{ }^{W}{ }^{W} \text { awán }^{\text {y }} \text { 'his ...' }
\end{aligned}
$$

wíc 'my older (?)brother's son (w.s.)' şiwíc 'my older brother's daughter', spmíc 'your ...', ṣkwawíc 'his ...'
áw 'my son's son'
ṣịáw 'my son's daughter', ṣm?áw 'your ...' (cf. ṣáw 'my child (w.s.)', ṃ̣̣áw 'your child' and $\mathrm{n}^{\mathrm{y}}$ sí. 'my mother's older sister'. /s/ appears to be part of the root in the latter and to be used symbolically. The same may be true of /s / in ṣ̣áw, although here it is perhaps possible to consider $s^{-}$a derivative prefix)
xká• 'my daughter's son' (also ixká•; see 712) sixká• 'my daughter's daughter', ṣmxá• 'your ...' ká•s 'my sister's daughter's son' şiká•s 'my sister's daughter's daughter' 2. ki-, $k-$ 'male' The status of /i/ is the same as in the form above. Ki- is not as common as șiand is known to contrast with it in only two sets:
$\mathrm{kn}^{\mathrm{y}} \mathrm{ká} \cdot \mathrm{~s}$ 'my parent's parent's brother' sn $^{\text {Ykás }}$ 'my parent's parent's sister' (Note different root vowel lengths.)
kiyí• 'my greatgrandfather'
siyí• 'my greatgrandmother'
It occurs with two kinship terms denoting males whose female counterparts do not contain si-:
 (cf. $\mathrm{n}^{\mathrm{y}}$ má• 'my father's mother')
$\mathrm{kn}^{\mathrm{y}_{\mathrm{wi}} \cdot}$ 'my father's older brother', kmn ${ }^{\mathrm{y}}$ wí• 'your ...' (cf. $\mathrm{n}^{\mathrm{y}} \mathrm{pi}$ • 'my father's sister')
$/ k /$ of kasá. 'my older brother (m.s., w.s.)' is undoubtedly to be equated with this element. (/a/ of the unstressed syllable may perhaps be explained as assimilation to the vowel of the stressed syllable.)
3. $x$ - This apparently denotes 'male offspring'. It contraste in two sets with si-: $\mathrm{xn}^{\mathrm{y}} \mathrm{pi} \cdot$ 'my brother's (?) son', xan' ${ }^{\text {y }}$ í• 'your brother's son'
şipí• 'my brother's (?) daughter', şnpí• 'your brother's daughter'
$\mathrm{xn}^{\mathrm{y}}{ }^{\text {ṣ?á. }}$ 'my younger sister's (?) son'
siṣ̊á• 'my younger sister's (?) daughter'
(The data reveal conflicting translations of the above forms. Note that $\mathrm{n}^{\mathrm{y}}$ - is absent in the forms with si-.)
/ $x$ / which may be this same element is present also in xu•má• 'my son (m.s.)' and xká• 'my daughter's son'. Its usage in these two forms may be symbolic (or possibly derivative). Because of its position in relation to the pronominal prefix, it is not considered as forming an element of a compound in these forms: mxu•má• 'your son', mxká• 'your daughter's son'

As kinship terms can readily be converted into verbs, it follows that these elements must be considered as entering into verb compounds. Examples of such were obtainable only with si-. The following are inflected forms of the verb stem -siwán ${ }^{\sharp}$ 'a male to call (someone) sibling's daughter', derived from siwán ${ }^{\text {Y }}$ 'my sibling's daughter (m.s.)':
$\operatorname{sn}^{\mathrm{Y}}$ wán $^{\mathrm{y}}$ 'I call you niece, you are my niece' ṣma•wán ${ }^{y}$ 'he calls you niece, you are his niece' $\operatorname{sn}^{\mathrm{Y}} \mathrm{a}^{\prime}$ wán $^{\mathrm{y}}$ 'he calls me niece, I am his niece' ṣpa‘wán ${ }^{\text { }}$ 'he calls her niece, she is his niece'
715. Reduplication. Reduplicated nouns are less common than reduplicated verbs. Reduplicated nouns rarely take the bare case suffix (530), but commonly attach the demonstrative suffix (531). They tend, more so than verbs, to have an onomatopoetic flavor.

The first consonant of the second syllable is optionally modified in one form:
$n^{\mathrm{Y}_{\text {írwír }}}$ (or $\mathrm{n}^{\mathrm{y}_{\text {írn }}} \mathrm{y}_{\mathrm{i} r}$ ) 'hummingbird'
One form occurs in which the vowel of the second syllable is lengthened:
xúlxú•1 'trumpet'
Most reduplicated nouns have phonemically identical syllables:

$$
\begin{aligned}
& \text { ríqríqz' 'the corner, in the corner' (This } \\
& \text { form apparently does not occur without } \\
& \text { the case suffix }-\mathbb{Z}^{y}(530.3) \text {.) } \\
& \text { tíntín 'guitar' }
\end{aligned}
$$

```
qátqát 'duck'
wílwíl 'flute (One informant says lwíl)
xálxál 'cactus wren'
Zá kálkál 'sandpiper' (a compound (?),
sá 'bird')
```

720. Nouns derived from verbs.
721. $k^{W}-, k-\quad$ 'definite' ('he who, that which') (See 225 for statements regarding alternation of $/ \mathrm{k}^{\mathrm{W}} /$ and $/ \mathrm{k} /$.$) This prefix is extremely productive in deriving$ nouns from verbs. It occupies the fourth position class. Its reference is to the subject of the verb to which it is attached. The reference may be animete or inanimate. In a large majority of the cases when the reference is animate, both this prefix and the derivative prefix a(722) are present. Both prefixes are present also in several forms when the reference is inanimate. It is not possible to predict from any given verb stem whether the 'definite' verbal noun formed from it will or will not also contain a-.

One set is known in which the presence of a- distinguishes animate reference:
$k^{\text {w }}$ yá•w 'things which are located (sitting, standing, lying) for a period of time' (yá•w distributive subject plural of wá 'be located sitting', yák 'be lying', pra. 'be standing')
$k^{W}{ }^{\text {ayáa }}$ •w 'animate beings which are located ...'
a- in one set may possibly denote a plural (and was so stated by an informant):
krár 'one who works' (rár 'I work, am occupied') $k^{W}$ arár 'they who work' ( $k^{W}$ a rár is also recorded with this meaning.)

The following are examples of the definite prefix without a-:

kcúr 'tire' (cúr 'it rolls')
kráp 'sickness' (ráp 'I ache, it aches, hurts')
$k^{W}$ roák 'old man' (roák 'I'm an old man')
(pán) kpá•p 'the one who bakes (bread), a baker' (pá•p 'I bake')
kráw 'the fast one' (ráw 'it flows', aráw 'I'm fast')
$k^{W}$ คás 'he who said, did' (ás third person animate distributive object plural of í 'say')
$k^{W}$ คís 'that which "said", happened' (ís inanimate distributive object plural of ísay'. This may be more freely translated as 'what was said')
(wá) kwáspiz ${ }^{Y}$ 'in it (the house) which is located (sitting) here' (wás inanimate distributive subject plural of wá 'be located'; -piz ${ }^{\text {y }}$ demonstrative suffix (531.3))
(mát) $\mathbf{k}^{W} r$ Púr '(land) which is spherical', the world' (r’úr be spherical'; this appears
to be a compound; see 714.)
The following examples have $k^{W}$ - and a-: kxma?úz 'priest (xmPúí 'be grey')
 'baby', rmás 'be young in age, be an infant, be newly germinated')
$\mathrm{k}^{\mathrm{W}}$ amán 'he, they who arise, get up' (mán 'it
arises, filies, I arise') $\mathrm{n}^{\mathrm{y}} \mathrm{i} \cdot$ yák ${ }^{\mathrm{W}}$ awí• 'dentist' ( $\mathrm{n}^{\mathrm{y}} \mathrm{i} \cdot \mathrm{yá}$ 'his tooth'; the verbal noun is apparently derived from a verb wi• whose meaning here is not clear. wí as a free form means 'I see'. For
its meanings as a bound form see 616.1.) $k^{W}$ a.šít 'the same (thing)' (šít 'be one') kn Yacáy 'the one who calls (her) mother' (This is actually the third person possessive (512.2). Cf. $\mathrm{n}^{\text {y }}$ cé. 'my mother'. For derivation of verbs from kinship terms see 621, 623.)
$k^{\mathrm{w}}$ yamá•s 'a dancer' (i•má•s distributive subject plural of i•má 'I dance')
$k^{W} \mathrm{axan}^{\mathrm{y}}$ 'that which is very much' (-xán ${ }^{\text {y }}$ 'be very much; see 616.2)
$k^{W_{1}}{ }^{\mathrm{y}}$ acás 'the little one (in size)' ( $1^{\mathrm{y}}$ cáš 'be little')
ksayá•w 'singer' (syá• 'I sing' -w benefactive
(?); see 481.1)

( $\mathrm{n}^{\mathrm{y}} \mathrm{i} \cdot \mathrm{wáy}$ 'his heart', pít impersonai intransitive verb of obscure meaning, perhaps 'be dense, tangled, close together'; cf. an ${ }^{\mathrm{y}} \mathrm{a}^{\prime} \cdot \mathrm{I}^{\mathrm{y}}$ pít 'mesquite thicket', ayá• pít 'grove of trees', also i•yá•y n $\mathrm{n}^{\mathrm{y}}$ apit 'I forget')

Evidence from two sets indicates that lengthening of a- can distinguish animate:

$$
\begin{aligned}
& \mathrm{k}^{\mathrm{W}} \mathrm{axan}^{\mathrm{y}} \text { 'that which is very much' (cited above): } \\
& \mathrm{k}^{\mathrm{w}} \mathrm{a} \cdot \mathrm{xa}^{\prime} \cdot \mathrm{n}^{\mathrm{y}} \text { 'the good people' (lengthening } \\
& \text { of the root vowel apparently denotes plural, } \\
& \text { probably collective) } \\
& \mathrm{k}^{\mathrm{w}} \text { ašít 'the same (thing)' (cited above): } \mathrm{k}^{\mathrm{w}} \mathrm{a} \cdot \text { šít } \\
& \text { 'the same person, people' }
\end{aligned}
$$

The second and third persons appear to be the only references possible for $k^{W}-$. No verbal nouns were obtainable with $\mathrm{k}^{\mathrm{W}}$ - which would be rendered in English 'I who'. Its use with reference to second person is not common. Two examples only were recorded:

$$
\begin{gathered}
\mathrm{mk}^{\mathrm{W}} \mathrm{a} \cdot \mathrm{Sin}^{\prime} \cdot \mathrm{t} \text { 'each of you' (šít 'be one'), } \mathrm{z}^{\mathrm{y}_{\mathrm{mk}}{ }^{\mathrm{W}} \text { awás }} \\
\text { 'you who sit in it' (wá 'I sit') }
\end{gathered}
$$

It may be noted that none of the above examples are derived from transitive verbs. It appears reasonable to assume that transitive verbs might form verbal nouns with $k^{W}-$. However, it was possible to elicit only one such example:

$$
\text { pkn }{ }^{y} \text { axá•t! 'the one who has him for a pet' (p- }
$$

third person pronominal object prefix (411), $\mathrm{kn}^{\mathrm{y}}$ axá•t 'one who has a pet', $\mathrm{n}^{\mathrm{y}}$ xát 'I have a pet', xát 'dos')
One verbal noun with $k^{W}$ - occurs in which $k^{W}$ - is prefixed to what appears to be the third person form of the verb (412):
kpyután 'the chief' (apparently from the verb pi•tá•n 'I'm a chief' derived from the noun pi•tá•n 'chief')
722. a- 'indefinite' The term 'indefinite' will serve to distinguish this prefix from the 'definite' $k^{W}-$, and in most instances its reference is indefinite. However, its primary function seems to be gerundive, that is, it nominalizes the action of the verb, with a reference to the action itself, to the result of the action, or to the means or manner by which the action takes place. The verb which it nominalizes is commonly the second member of a phrase. (The first member, as well as all members, of a noun phrese may consist of verbal nouns formed with a-.) The following examples demonstrate this gerundive fumction of $\mathrm{a}-$ :
ąúx 'a cough' (úx 'I cough')
šayú•1 'a dress' (šyú•l 'I wear a dress')
amán 'airplane' (mán 'I (a bird) fly, I get up, arise')
yamés 'a dance, circus' (i•má 'I dance', -s distributive subject plural (421.4))
ga?úl 'a flag' (ẹヤúl 'I wash')
cmalú•ṣ＇measles＇（cmlú•ṣ＇I have measles＇） caká•t＇axe＇（cukát＇I chop，cut with an axe＇）
 aní•p＇a belt＇（ní•p＇I put on，wear a belt＇） $\mathrm{n}^{\mathrm{Y}} \mathrm{i} \cdot \mathrm{y}$ ú ṣawíw＇a towel＇（swí＇I wipe＇，－w plural （？），see 421．6）
sayáw＇song＇（syá•＇I sing＇）
 $\operatorname{sk}^{\mathrm{W}} \mathrm{in}^{\mathrm{y}}$＇I pierce＇； $\operatorname{sk}^{\mathrm{w}} \mathrm{in}^{\mathrm{y}}$ is also a noun meaning＇drinking glass＇）
mát šxayú•k＇spade＇（mát＇ground＇，šxyú•k＇I dig up＇）
$\mathrm{n}^{\mathrm{y}} \mathrm{i} \cdot y a ́$ cax ${ }^{\mathrm{W}}{ }^{\text {át }}$＇lipstick＇（ $\mathrm{n}_{\mathrm{i}} \cdot \mathrm{yá}$＇his mouth＇， cax ${ }^{W}$ át＇redden＇）
axá•p $n_{i}{ }_{i} \cdot$ séa $^{\prime} z^{\text {y }}$＇cuff（on the sleeve）＇（axá•p
 his arm，hand＇）
sayáw $n^{y}$ awí• kan ${ }^{\text {Y }}$ áp＇radio＇（sayáw＇song＇， $\mathrm{n}^{\mathrm{y}}$ awi．＇thing＇（perhaps from wí ＇I see＇， $n^{\mathrm{Y}}$－referential indefinite，see 440 ），kan ${ }^{\mathrm{Y}}{ }^{\text {áp }}$ ＇talk，speech，gossip＇from knyáp＇I talk， speak，gossip＇）
cwasí•s＇a comb＇（cusí＇I comb＇）
cwapú•r＇a chair＇（ ${ }^{\prime}$ ’úr＇I sit on＇）
cwandez＇a brush＇（cumá⿱亠䒑十＇I powder（my face）＇， cumá•壬＇I sweep＇）（No＇ie that the prefixal element－u－（614．1）is retained in cwasí•s and cwamá•王，but not in caká－t＇axe＇（see
above). See 213 for change of $/ \mathrm{u} /$ to /w/.) The noun formed by means of a- can have animate as well as inanimate reference:
cuk $^{W}{ }_{i}$ • pašá•y 'storekeeper' (cuk ${ }^{W}{ }_{i}$. 'store', pšá• 'I watch, guard') xmá rawí• 'baby chick' (xmá 'chicken', verb stem unknown)
xmá ramás 'guinea hen' (rmás 'be young, small because of age')

$a-$ in the above examples actually distinguishes
antmate reference. Compare the following:
$i \cdot$ rmás 'small stick of wood' (í 'wood')
šít 'something alone' (šít 'be one'): ašít
'someone alone'
$1^{y}$ cás 'something small' ( $1^{y}$ cás 'be small in size'): $1^{\mathrm{y}}$ acás 'someone small'
xán ${ }^{y}$ 'something new, pretty (?)' (xán ${ }^{\text {y }}$ 'be new'): axán ${ }^{y}$ 'someone pretty'
Lenthening of a-, when not used with $k^{W}-$, may possibly denote plural, rather than animate, as evidenced by: a•țúx 'a deck of cards' (ṭúx 'I play cards') kxa 'mák $\begin{aligned} & \text { Píp } \\ & \text { 'a card game in which each player }\end{aligned}$ has three cards' (k- 'definite' (721), xmúk 'be three', $a^{\circ} \mathrm{I} \cdot p$ appears to be a verbal noun derived from the collective plural of ísay')

The reference is deinitely animate, howerar, in the following with lengthening of a-: xa'wák 'twins' (xwák 'be two') xa'múk 'triplets' (xmúk 'be three') sa'páp 'quadruplets' (spáp 'be four') şa•ráp 'quintuplets' (şráp 'be five')
722.1. Contrastive sets with $\mathrm{k}^{\mathbf{W}-}$ and $\mathrm{a}-$. In the following sets the definite-indefinite function of the two prefixes is evident:

> I ${ }^{\mathrm{Y}}$ acáš 'someone little, a little one': $\mathrm{k}^{\mathrm{W}} \mathrm{Y}_{\text {acáš }}$ 'he who is little, the little one' axán y 'a pretty one': $\mathrm{k}^{\mathrm{W}}$ axán y 'the pretty one' patáy 'a big one': kpatáy 'the big one' sayá•w 'a singer': ksayá•w 'the singer' $\mathrm{n}^{\mathrm{Y}}$ awí' 'a thing': kn $\mathrm{y}_{\text {awí }}$ 'the thing'

Two sets show a slight difference in the meaning of the stem according to the prefix used: amán 'airplane': $k^{W}$ amán 'he who got up' asít 'someone alone': $k^{W} a$ sińt $^{\text {a }}$ 'the same thing' (cf. $\mathrm{k}^{\mathrm{W}} \mathrm{a}$-sít 'the same person, people')
723. No marker. A number of verbs can function as nouns without an overt derivative affix. Generally, though not always, the form of the verb in its nominal function is a pluralized third person. The ability of the form to attach a case suffix, as well as its syntactic position, is evidence of its status as a noun rather than a verb:
awxám 'seedbeater' (awxám 'he hits') $c^{c u k}{ }^{W_{i}}$. 'store' (cuk ${ }^{W}{ }_{i}$. 'I sell'; the form cwak ${ }^{W}{ }_{i}$. also occurs.)
cu•láoy 'an iron' (cu•lá•y 'he presses many
things', plural of cu•láy 'he presses, irons')

(wá 'house', $z^{y}$ - positonal affix (430.1), xpucú• $n^{y}$ 'I go to church', xpucú $\cdot n{ }^{\mathrm{y}} \mathrm{I}^{\mathrm{y}}$
'in the church')
$q^{W}{ }^{\text {lyáw }}$ 'glare' ( $q{ }^{W}$ lyáw 'it shines') spáp 'the fourth', spápz ${ }^{y}$ 'in the fourth (grade)' (spáp 'be four')
The second member of a noun phrase (810) can be marked as a verbal noun either by $\mathrm{k}^{\mathrm{W}}$ - or a - (or both) : máṭ $\mathrm{k}^{\mathrm{W}} \mathrm{xcáq}$ 'a grave, the grave' (mát 'ground', xcáq 'be bad')
má•王 ${ }^{\mathrm{y}} \mathrm{k}^{\mathrm{w}}$ ayí•k 'God' (má•壬 ${ }^{\mathrm{y}}$ 'heaven, in the above', yí. 'I come', - $k$ directional affix (430.5)) mú sxawá•k 'double blanket' (mú 'blanket, sheep', s- instrumental prefix (614.5), xwák 'be two') Very often, however, the second member has neither of the above prefixes and is formally a verb. It seems feasible to treat the unmarked verb in this position as a noun. In many instances the form has attached a positional or referential prefix. Such a form in its nominal function is best rendered in English as 'that with which, in which (or the like) one performs the action of the verb'. The
following noun phrases illustrate this function:
 in which one washes dishes')
$\mathrm{n}^{\mathrm{y}} \mathrm{i} \cdot \mathrm{yá}$ mṣuwí•w 'napkin' (cf. şká• mṣawíw 'dish cloth'; mṣawíw has the form of a verbal noun, derived by means of a-; mṣuwíw is the distributive object plural of the third person of ṣwí 'I wipe', m- positional affix (430.2), -w is very likely benefactive) $\mathrm{n}^{\mathrm{y}} \mathrm{i} \cdot \mathrm{mi} \cdot$ • mawná•k 'garter' ( $\mathrm{n}_{\mathrm{i}} \mathrm{Cmí} \cdot$ 'his foot, leg', m- positional affix, verb stem would appear to be u•nák, possibly related to -nák 'kill')
 sukwirr third person distributive object plural of skwir 'I screw, twist') $n^{y}$ awí• $n^{y}$ mawká $\ddagger$ 'ruler' ( $n^{y}$ - referential indefinite (440), u•kát 'I cut, slice') papí•I $\mathbf{Z}^{\text {Y }}$ xá•p 'post office' (papí•I 'paper', xáp 'it enters')

Verbal nouns derived with no overt marker, but utilizing an inflective prefix, particularly $\exists^{y}-$, $m-$, or $n^{y}-$, including combinations of these prefixes, are extremely commoh. Such a method is very productive in the naming of new cultural items. Two-member phrases of this sort are perhaps commoner, but single verbal nouns with these prefixes are by no means infrequent:

$$
\mathrm{I}^{\mathrm{y}} \text { kucáp 'claw' (k-instrumental prefix (614.2), }
$$

$$
\begin{aligned}
& \text { cáp 'I throw, place') } \\
& \text { I' }^{\mathrm{y}} \text { ucí•t 'toilet, privy' (cít 'I defecate') } \\
& \mathrm{n}^{\mathrm{y}} \mathrm{mxwá} \mathrm{k} \text { 'a companion' (xwák 'be two', lit., } \\
& \text { 'with whom there are two') } \\
& \text { mawn }{ }^{\text {Yúrr }} \text { 'pen, pencil' (lit., 'with which one } \\
& \text { writes') }
\end{aligned}
$$

800. SYNTAX

The description of the constructions which result from arrangements of words in an utterance is facilitated by the identification of the following syntactic constituent units:

1. Interjection. A word which has no syntactic relationship, or whose relationship is peripheral or ambivaIent, to the units which compose a major sentence.
2. Phrase. A construction which consists of one word or a sequence of contiguous words which comprises a unit of a clause and whose constituents relate immediately to each other more closely than any one of the constituents relates to a constituent of another construction. One of the constituents may be the head to which immediate constituents are subordinate, or the distinction of a head may be impertinent or equivocal. Two types of phrases are recognized: noun phrase and verb phrase.
3. Subject. A noun phrase or nominalized clause which performs the action denoted by the verb phrase or phrases in the predicate and to which is equated the actor denoted by the subject pronominal prefix of the verb. The subject is distinguished by the affixation of the subject syntactic suffix and/or by its position preceding the predicate.
4. Predicate. A vert phrase plus any nominalized clause or noun phrase, except the subject, with which it
is in immediate constituency. Immediate constituency of the clause or phrase is determined by its position which is immediately prior to the verb phrase.
5. Clause. A construction which consists of one or more than one predicate with or without a subject (as defined above) and whose final predicate has attached to its final verb or verb phrase either no syntactic affix or one of the syntactic affixes listed below. A clause is simple if it contains only one predicate. It is coordinate if it contains two or more predicates. A clause is also either independent, dependent, or nominalized. An independent clause is identified by the absence of the subordinating syntactic suffix -m. An independent clause can function as a sentence without the aid of any accompanying units or clauses.

A dependent clause is identified by the presence of the subordinating syntactic suffix -m. A dependent clause presupposes the presence of an accompanying independent clause.

A nominalized clause is an independent clause functioning syntactically as a noun or noun phrase.
6. Melody. A construction of pitch levels and terminal contours which embraces and necessarily accompanies a sentence.
7. Sentence. A construction which consists of one or more clauses or which consists of an interjection or a fragment of a clause, and which is accompanied by a melody. The former is a major sentence.

The latter is a minor sentence. A major sentence may be simple, coordinate, complex, compound, or compound-complex.
801. Syntactic suffixes. The relationships among the constituent units which result in a sentence can be established by position alone, or be implied by the context. However, most relationships are effected, either optionally oj obligatorily, by means of one or more of the following syntactic suffixes:

> 1. -c (subject; present-past coordinating)

Attached to the final constituent of a noun phrase or of a nominalized clause, this suffix denotes that the phrase or clause is the subject of a predicate (see 530). Attached to a verb which is not the final constituent of a nominalized clause, it equates the identity of the subject of the verb to which it attaches with that of a following verb. The use of -c with verbs has a somewhat overlapping inflective function (484.4).
2. -pic, -sic Alternate forms, with an added demonstrative meaning, of the above suffix when attached to a noun phrase or a nominalized clause. (See 530.1, 531.1.)
3. - pin ${ }^{y}$, -sin ${ }^{y}$ Alternate forms, with an added, demonstrative meaning, of the unmarked 'objective' (530.2, 531.2), which may attach to a noun phrase or a nominalized clause.
4. -m (subordinating) This suffix attaches to the final constituent of a verb phrase (in fifth position) and denotes that its subject is different from that of the
following verb phrase. In certain circumstances it may attach to an auxiliary verb which is final in the sentence, in which case it denotes that the subject of the preceding verb is different from that of the auxiliary (863.1).
5. -k (future coordinating) This suffix attaches to a verb phrase, ordinarily to all its constituents. Its usage implies a future action which may or may not be expressed by the intentive $-x$ (484) suffixed to a verb in a phrase occurring elsewhere in the sentence. A future action may be implied by, in addition to the intentive $-x$, the imperative form of the verb. A verb phrase with $-k$ which is final in the sentence ordinarily may only be one which consists of the imperative form of the verb. $-k$ and -c may not co-occur. $-k$ and $-m$, however, may attach to the same verb phrase with -k in the prior position. It can also co-occur with many of the inflective suffixes (480). Its relative position class is fourth (see Apprendix I). The only inflective suffixes which are known definitely not to co-occur with $-k$ are -x (484), $-\mathrm{I}^{\mathrm{y}}$ (485.1), and -c (481.4).
6. -m (interrogative) Attached to a verb which is sentence-final, this suffix together with a standard, or characteristic, melody (840) makes a declarative sentence interrogative.
7. -a (interrogative) Attached to a verb which is sentence-final, and accompanied by a standard melody (840) this suffix makes a declarative sentence interrogative.
8. -a (stylistic) This is not strictly a syn-
tactic suffix. It occurs mostly in narrations and can be attached to any final word in a sentence not ending in a vowel. It is of most frequent occurrence after the consonants / $\mathrm{c} /$ and $/ \mathrm{n}^{\mathrm{y}} /$. Its presence suggests on occasion a certain degree of emphasis to an utterance and perhaps a note of finality. A pause of varying length usually follows before the beginning of the next utterance. Its presence does not affect the melody of the sentence and often only the context distinguishes it from the interrogative suffix -a.
802. Order of syntactic units. The subject normally preceds the predicate. This order may be reversed, especially in narrations. In a clause of two or more predicates the predicates occur in an order which on the whole corresponds with that of the events or actions related. A noun or noun phrase which is part of a predicate precedes the verb or verb phrase of that predicate. Interjections normally initiate a sentence. The order of the units which constitute a construction are presented in further detail in the following sections, along with illustrations of the types of constructions which result froin the constituency of the units.
810. Noun phrase. A noun phrase consists of one, two, or three contiguous freely occurring forms. A phrase containing two members is common. A three- or four-member phrase is not rare. The first member of a noun phrase is unambiguously a noun (or pronoun) which, if possessable,
can attach a pronominal prefix（510）．The first member may be a primary noun stem or a secondary noun stem derived from a noun（710）or a verb（720）．The final member or members may，like the first，member be an unambiguous noun（or pronoun），or may be identical in form to a verb stem subject to modification by inflection for person， plural，and case．The nature of the non－initial member（s）， together with the semantic relationships between members， permits the postulation of four types of noun phrases： possessive，attributive，directive，and appositive．

811．Possessive phrase．Non－initial members must be nouns possessable by means of pronominal prefixes （510）．The first member may be a noun or pronoun．The final member is the head with preceding members as attributes．

$$
\begin{aligned}
& \text { apá } n^{\text {y }} \text { awa' the man's house' } \\
& n^{\mathrm{y}}{ }^{\text {ád }} \boldsymbol{p} \mathrm{n}^{\mathrm{y}} \text { awáz }^{\mathrm{y}} \text { 'in my house' } \\
& \text { mapún }{ }^{\mathrm{y}} \mathrm{mn}^{\mathrm{y}} \text { cé. 'your mother' } \\
& \text { mapún }{ }^{\mathrm{y}} \mathrm{mn}^{\mathrm{y}} \text { cá } \cdot \mathrm{n}^{\mathrm{y}} \mathrm{awwá}^{\mathrm{Z}}{ }^{\mathrm{y}} \text { 'in your mother's house' } \\
& \mathrm{n}^{\mathrm{y}}{ }_{\text {ṣxá }} \mathrm{pin}^{\mathrm{y}} \mathrm{n}^{\mathrm{y}_{\text {wará•• }}} \text { 'the girl's clothes' } \\
& k^{W} \mathrm{akú} \cdot \sin ^{\mathrm{y}} \mathrm{n}^{\mathrm{y}_{\mathrm{i}}} \cdot \mathrm{xu} \text { ' that old woman's nose' } \\
& \text { mú•r } n^{\text {yawá壬 }}{ }^{\text {y }} \text { 'in } \mathbb{M u} \cdot r \text { 's house' } \\
& \text { axá•p } n^{y_{i}} \cdot \text { šá•壬 }{ }^{y} \text { 'cuff' (lit., 'the shirt's } \\
& \text { hand, arm') }
\end{aligned}
$$

$$
\begin{aligned}
& \text { foot)' }
\end{aligned}
$$

812．Attributive phrase．The first member is the head and can not be a pronoun．Non－initial members of the phrase are attributive．

The second member can be an indefinite pronoun (544):

$$
\begin{aligned}
& \text { cwa Pú•r makápin }{ }^{\text {y }} \text { 'which chair, any chair' (obj.) } \\
& \mathrm{n}^{\mathrm{y}} \text { Ṣá• makápic 'which girl, any girl' (subj.) }
\end{aligned}
$$

The attributive members of the phrase are ordinarily stative verbs (300) inflected for animate or inanimate third person (410, 412), and for plural (421) when the head is animate plural:

$$
\begin{aligned}
& \mathrm{n}^{\mathrm{y}} \text { awí } \cdot 1^{\mathrm{y}} \text { cás 'a little thing' } \\
& \text { ṣká• ptáy 'a big bowl' } \\
& \text { sPák putáy 'a big, fat woman' } \\
& \text { pán mílmíl 'long and round (loaf of) bread' } \\
& \text { pán mílmíl sít 'one long and round (loaf } \\
& \text { of) bread' } \\
& \text { minú•t ṣa•xú•k 'ten minutes' } \\
& \text { maṭká•m şráp 'five years' } \\
& \text { xá xsú•r 'cold water; soda pop' } \\
& \text { apá•s supá•p 'four men' }
\end{aligned}
$$

$$
\begin{aligned}
& n^{\mathrm{Y}} \mathrm{x}^{\mathrm{W}} \text { át } \mathrm{I}^{\mathrm{Y}} \text { cás 'a little of my blood' } \\
& \text { asít xmúk }{ }^{\text {y }} \text { 'one of the three' }
\end{aligned}
$$

813. Directive phrase. The first member can not be a pronoun. The final member is a verbal noun, with or without an overt derivational affix (720). The characteristic feature of a directive phrase is the nominalization of the entire phrase. A secondary feature is that no member is unequivocally the head or the attribute. The final verbal noun can be derived from an active or a stative verb. A
stative verbal noun is always overtly marked．The first member is commonly the object of the verbal noun．It can also be the subject of the verb deriving the verbal noun， in which case the verbal noun is always overtly marked as such．

The following examples are presented according to the manner of deriving the verbal noun（for other examples，see 720－723）：

## 1．No marker

$$
\begin{aligned}
& \mathrm{n}^{\mathrm{y}} \mathrm{i} \text { •血í• mawná•k 'garter' } \\
& \text { şké 主 }{ }^{\text {Şuのúl }} \text { 'dishpan' } \\
& \text { i. } n^{\text {y mawké }} \text { t. 'crosscut saw' } \\
& \mathrm{n}^{\mathrm{Y}} \text { awí• } \mathrm{n}^{\mathrm{y}} \text { mawká•t 'ruler, yardstick' } \\
& \mathrm{n}^{\mathrm{y}} \mathrm{awí}^{\text {• }} \mathrm{n}^{\mathrm{y}} \text { mcá• pa•?áy } \text { 'the thing they call } \\
& \text { mountain lion' }
\end{aligned}
$$

2．a－

$$
\begin{aligned}
& \text { mú sxawák 'double blanket' } \\
& \operatorname{cuk}^{W}{ }_{i} \text { ' pašá•y 'storekeeper' } \\
& \text { mú•r ašít }{ }^{\prime} \text { 'Mu•r alone' } \\
& \mathrm{n}^{\text {y }} \text { awí• amá•s 'foud' } \\
& \mathrm{n}^{\mathrm{y}}{ }^{\text {awí }} \text { ará•r }{ }^{\text {'work' }} \\
& \mathrm{n}^{\mathrm{y}} \text { awí• amán 'airplane' (also amán) } \\
& \text { apá ašít 'a man alone, one man' } \\
& \text { sayáw } \mathrm{n}^{\mathrm{y}} \text { awí } \mathrm{kan}^{\mathrm{y}}{ }^{\text {áp }} \text { 'radio' (lit., 'the } \\
& \text { thing which tells songs') }
\end{aligned}
$$

3． $\mathrm{k}^{\mathrm{W}}-$
pán kpáp＇baker＇
wí $k^{W} y a ́ k ~ ' t h e ~ m o u n t a i n ~ w h i c h ~ l i e s ' ~$ $k u ́ \cdot c k^{W} a \cdot s ̌ i ́ t ~ ' t h e ~ s a m e ~ p i g s ' ~$
 wa？ú⿱㇒士口 kspáppin ${ }^{y}$＇the five candles＇ $\mathrm{n}^{\mathrm{y}}{ }^{\text {awí }} \cdot \mathrm{k}^{\mathrm{W}}{ }^{\mathrm{P}}$ is ＇what is said＇ wí $\cdot$ kšáy＇Greasy Mountain＇（place name） $n^{\mathrm{y}}$ á王 $^{\mathrm{y}} \dot{a} \cdot p \mathrm{k}^{\mathrm{W}}$ yáwpin ${ }^{\mathrm{y}}$＇this summer＇ capáy（or capá．y） $\mathrm{k}^{\mathrm{W}} \mathrm{a} \cdot \mathrm{xá} \cdot \mathrm{n}^{\mathrm{Y}}$＇the good people＇ kú•c pkn ${ }^{\mathrm{y}}$ axá•t＇the one who keeps pigs＇
One manner of denoting possession is by means of a noun phrase，the final member of which is a verbal noun， derived from what is apparently the distributive plural of a？i＇do＇．The first member is formally the object of the verb．The construction resembles a nominalized clause （863．2）．Yet it functions syntactically as a noun phrase， and is treated as such in this analysis．Although the semantic relationship between the members is head－attributive in one respect，the formal relationship is similar to that between members of a directive phrase：
kú•k ma＇ís＇your coke＇（lit．，＇you have， own a coke＇）
$\mathrm{n}^{\mathrm{y}}$ awí• u？ás＇her things＇（also $\mathrm{n}^{\mathrm{y}}$ awí• $\mathrm{n}^{\mathrm{y}}{ }^{\text {wa？ís }}$
$k^{W}$ ramás $\mathrm{pn}^{\mathrm{Y}}{ }^{\mathrm{a}}$ ís ＇my children＇
814. Appositive phrase. In this type of phrase no member is actually attributive to the other. The members in a sense are in apposition. The first member usually denotes a general notion ( $\mathrm{n}^{\mathrm{y}}$ awí. 'thing' is a very common first member), with somewhat more specific identification in the final member. If the first member is a pronoun, it must be a demonstrative pronoun. The final member can be a demonstrative or third personal pronoun (541, 543). An appositive phrase can have as members verbal nouns; however, few are recorded. If the final member is a personal pronoun, it is the preceding member which is more specific. The final member can be inflected for person to indicate possession:
$n^{\mathrm{y}}$ awí• vú•r 'the donkey' (lit., 'the donkey
thing $\left.{ }^{1}\right)$
$\mathrm{n}^{\mathrm{y}}$ awí $\cdot \mathrm{n}^{\mathrm{y}}$ mcá• 'the mountain lion'
$n^{y}{ }^{\text {s }}$ Pák $\mathrm{mn}^{\mathrm{y}}$ cá• 'the woman (who is) your mother'
ṣxá wamswáy 'the girl (who is) your wife'
$\mathrm{n}^{\mathrm{y}} \mathrm{awí} \cdot \mathrm{k}^{\mathrm{w}}$ ekú• 'the old woman'
pí•n' ${ }^{\text {y }}$ xá 'this (which is) water'
xá $\mathrm{n}^{\mathrm{y}} \operatorname{ṣán}^{\mathrm{y}}$ 'that water' (lit., 'the water,
it there')

Appositional constructions (as well as constructions of the other types) may have a stronger semantic bond between members than the above examples, e.g., wá šká• 'tent',
xmá apá 'rooster'. Such constructions are treated as compounds (714).
820. Verb phrase. In a sequence of verbs one verb may relate to another in such a manner that it is convenient to recognize a verb phrase. However, it is not always easy to determine whether a sequence of verbs should be considered a phrase or a coordinate construction (862), a distinction which in many instances is perhaps trivial. An attempt has been made to identify as a verb phrase a sequence of verbs in which one verb is the main verb, providing the major semantic contribution, and other verbs of the sequence are ancillary, either modifying the meaning of the main verb or conveying information concerning the nature of the action or the physical status of the subject. A verb phrase in which one verb modifies the meaning of another is attributj.we. One in which an accompanying verb supplies information regarding the status or nature of the main verb is auxiliary. There is a special type of the auxiliary phrase in which the main verb is inflected for person by means of the auxiliary verb í 'say'. Such verbs are periphrastically inflected and comprise a class which includes most reduplicated verbs (617). Periphrastically inflected verbs constitute a periphrastic verb phrase. 821. Attributive phrase. The main verb is, of course, the head and may either precede or follow the attribute. It is possible to identify definitely as an attributive phrase one which contains only two members, although it: is
very likely that phrases consisting of three or more members are possible. A syntactic suffix is ordinarily attached only to the final member. Both members may be inflected for person. The attributive member is optionally inflected for plural. Other inflective processes usually occur in the head only. The attribute may be an active verb, a stative verb, or certain of the interjections (830), especially those with temporal reference.

The head of the following examples is the final member: $1^{\mathrm{Y}}$ cáš s?á•r 'be slightly paralyzed (i.e., dried up)' $\mathrm{n}^{\mathrm{Y}} \mathrm{axán}^{\mathrm{y}}$ ṣ$^{\circ}{ }^{\prime} \cdot \mathrm{r}$ 'be really paralyzed' muxá•m yák 'it lies a little ways off' ušít ssa•c 'he went on alone' mapíl ${ }^{\text {y }} \mathrm{u} \cdot \mathrm{yá} \cdot{ }^{\text {• now }}$ I know' $\mathrm{cn}^{\mathrm{y}} \mathrm{g}_{\mathrm{m}}^{\mathrm{m}} \mathrm{má} \cdot \mathrm{mx}$ 'it will end at night'

The head is the initial member in the following: $\mathrm{z}^{\mathrm{Y}}$ áy in ${ }^{\mathrm{y}}$ á'm 'there are very many things' ( $\mathrm{I}^{\mathrm{y}}$ áy 'be numerous', in ${ }^{y} \mathrm{a}^{\prime}$ 'm 'be very much, many') $u \mathrm{Z}^{\mathrm{y}}$ áy in ${ }^{\mathrm{y}}$ á•m 'there are very many living beings (e.g., people)'
$n^{y} n^{y}$ á $\cdot m n^{y}{ }^{\text {axán }}{ }^{y}$ 'there are really a lot' pa•nák xsá•me 'he almost killed him' u'ṣáy mspáxan ${ }^{\text {y }}$ 'I really died laughing' awsáy msupáxan ${ }^{\text {y }}$ 'he really died laughing'
 $n^{\text {y }}{ }_{i} \cdot p u ? a ́ \cdot x$ xsukáyc 'he's still standing there'
822. Auxiliary phrase. The head of an auxiliary phrase is always the initial member. There may be one or two (or more) attributive members, which can be any of the class of auxiliary verbs. A common function of the auxiliary verb is to denote the position or location of the subject of the main verb while the action of the latter takes place. One of the locative-temporal prefixes (450) is very commonly attached to the auxiliary verb to relate the action to a relative time or place of occurrence or to express the continuation of the action. When the auxiliary verb functions itself as a main verb, a following syntactically auxiliary verb is mandatory. The auxiliary verb in such case can be the same as the verb it modifies. The following examples illustrate this:

```
yák yák 'it lay' (lit., it lay in a lying position')
yák puyák 'it lay here' (lit., 'it lay in a
``` lying position here') wác puwác 'it sits here' \(n^{y}{ }^{y}\) pá•c p’á•c 'it stood there (in a previously mentioned place)'

Syntactic suffixes are often attached to the auxiliary verb oniy. They may occur, however, with the main verb only or with both the main and auxiliary verbs.

Duration or continuation of the action of the main verb can be indicated by two or more repetitions of the auxiliary verb:
pkuwíc pá•c 'he followed him as he went along':
pkuwíc påc pác pá•c ?he kept on following him (i.e., for a long time)'
( \(\mathrm{gx} \times \mathrm{mu}\) ) \(\mathrm{kpn} \mathrm{n}^{\mathrm{y}}\) wílk pmwák pmwák pmwák ... 'You keep right on shooing (flies), as you sit here (1.e., don't stop)'

The following are examples of typical occurrences of auxiliary phrases:

Bumác sa•yák 'he lay there and slept'
pヤác ssayúm 'it stood there' (lit., 'it stood existing there')
uyí•c sa•yí•c 'he was over there coming' kuł̇ \({ }^{\text {Y }}\) wayá•c yuṣ 'I have climbed' (wayá• 'be around doing something'; yú, as an auxiliary verb, may be somewhat freely translated as 'it's a fact what has just been said') upámc uyu ac 'he fell' (lit., 'he fell, it's a a fact, he did')

I’úy pa?á-mc yuṣ 'I'm going along playing'(said in response to the question What are you doing? \({ }^{\prime}\)
pu’áw pá•c 'he went along walking'
(i•yá \({ }^{\text {y }}\) kcáp) mák cuyá•w '(Throw them into my mouth) while \(I\) eat as we continue to be here? pa'ṣáyc ṣwa•yá•yc 'he was around there eating him again'
xutcú•p pá•c 'he bucked (i.e., jumped several times) going along'
pa•cáp ṣa•yá•wm ... 'he placed him and while they were there ...'
šucúx ac 'he intends to pick up' (lit., 'he will pick up, he says')
ukíz \({ }^{y}\) ac 'he climbs' (lit., 'he climbs, he does it)
pa・クá ac as 'he says to him' (This phrase and similar ones are used following a quotation by someone. Lit., 'he says to him, he does (or says) it, he does it and as far as I know this is new information for you')
ísay', most commonly in the third person form á (but seldom stressed) and with the suffix -c, i.e., ac, appears to be the only verb which can immediately follow a verb with the syntactic suffix \(-m\) (801.4) witia the subjects of both verbs having the same reference. It is usually the auxiliary verb which attaches -m. This type of construction is not essentially different from the more typical phrases above. An example of this is:
sá•m ac ... 'he was going along there, he was and ...' (The subject of the next verb has a different reference.)

Verb phrases with í 'say', aPí 'do', and yú 'be' as second member appear to differ somewhat froin phrases containing the other auxiliary verbs. It is possible to construe most phrases containing one of these three verbs as second (or final) member as appositional phrases, and
thus set up an additional type of verb phrase. Although this analysis postulates no appositional verb phrase as such, such a phrase might justifiably be recognized. The evidence is stronger for apposition when the auxiliary verb is aPí 'do'. In the following the inflected form of \(a{ }^{\prime}\) i might be considered in apposition to the preceding verb, with a?í (or perhaps the phrase, including the preceding verb) as head to the following auxiliary verb:
suyá•c uヤác wa•yá, 'he's around singing, goes about singing'
 to teach them' (lit., 'he taught them, he did it there (or then), he was here, he was here')
822.1. Periphrastic phrase. This subtype of auxiliary phrase owes its name to its manner of inflection. Inflection for all processes, except the modification of the root vowel for what can perhaps be termed a kind of plural, takes place in the following unstressed auxiliary verb i 'say'. A class of periphrastically inflected verbs must be set up which are distinguished from normally inflected verbs, which can also be followed by the auxiliary verb i (822). Most reduplicated verbs are periphrastically inflected (617). The following are examples of non-reduplicated periphrastically inflected verbs:
sckáyp ix 'I'll be quiet.
aṣú i 'later' (This most commonly occurs with the syntaxtic suffix -m (801.4).)
cáqṣ ac 'he jumped'
ṣwírq i 'I whirl, it whirls around'
támk i 'it flashes (once)'
mín ac 'he passed by'
qá•w i 'I scream'
láw i 'I turn my head quickly' (It is interesting to note the effect of lengthening the root vowel: lá•w i 'I turn my head slowly'
830. Interjections. Interjections comprise a class of forms whose members are, for the most part, unanalyzable and whose function in a sentence is peripheral. Certain of them, e.g., the temporal absolutes, can occur as attributive member of a verb phrase (821). At least one (lá•x 'no') may function as a main verb. It is the peripheral usage of the more or less analyzable forms which permits their assignment to the class of interjections. For example, \(\mathrm{n}^{\mathrm{y}} \mathrm{xn}^{\prime} \cdot 1\) is an unambiguous noun meaning 'my younger brother'. However, when used as a vocative, it is considered as functioning as an interjection. Two types of interjections are recognized: exclamations, whose characteristics are more or less implied by the cover term, and absolutes. The latter is, in effect, a depository for all forms not considered as exclamations and which either relate periphally to the sentence or are ordinarily neutral in their function as noun or verb, even though their roots can be analyzed as one or the other.
831. Exclamations. The following are examples of exclamations, whose English translations only partially reveal their emotive ranges:
xú•y 'My: Golly:'
xút (also xú•ṭ) 'Heavens! Well!' (expression of surprise)
lá (also lá•) 'Oh! Gee: Now, wait a minute!' (of negative implication)
yáy＇Hey！
áwka＇Hello！＇（standard form of greeting）
\(n^{\mathrm{y}}\) axán \(^{\mathrm{y}}\)＇Really：Indeed！＇（cf．－xan \({ }^{\mathrm{y}}\)＇be very much（616．2））
apayú•s（or yú•ṣ）＇My goodness：＇
sá＇but，however＇
wéa（also cwá⿱亠䒑十 which is more polite）＇Yes＇
lá•x＇No＇
832．Absolutes．Forms considered as absolutes in－ clude those relating to time and nouns or personal names used vocatively．

832．1．Temporal absolutes．Not all expressions refer－ ring to time function as absolutes，e．g．， \(\mathrm{n}^{\mathrm{Y}}\) áckuwár＇after－ noon＇which appears to be used only as a verb．The follow－ ing are examples of forms functioning primarily as absolutes： márk＇at one time，once upon a time＇ mapíly＇now＇ má•m＇then，now，and so，afterwards＇（also \(n^{y}\) má \(\cdot m\) ． Either can be used as verbs with the mean－ ing＇it ends＇．）
cn \({ }^{\mathrm{y}}\) án＇yesterday＇
\(\mathrm{n}^{\mathrm{y}} \mathrm{a}^{\mathrm{E}} \mathrm{k}\)＇tomorrow＇
\(n^{\mathrm{y}}{ }^{\text {ámkł }}{ }^{\mathrm{y}}\)＇morning＇
\(n^{\mathrm{y}}{ }^{\text {á }} \cdot \mathrm{k} \mathrm{n}^{\mathrm{y}} \mathrm{ámkz}^{\mathrm{y}}\)＇tomorrow morning＇
\(\mathrm{n}^{\mathrm{y}}\) akúr＇long ago，for a long time＇
\(\mathrm{n}^{\mathrm{y}}{ }^{\text {á }}\) •mk＇daytime＇
tumi＇nk＇Sunday＇
Lú•n＇Monday＇
832.2. Vocatives. The form of the vocative for inalienably possessed nouns is that of the first person without case suffix. The form for other nouns, including personal names, is the stem without case suffix:
\[
\mathrm{n}^{\mathrm{y}} \text { cá• 'Mother:' }
\]
\[
k^{W} a k u ́ \cdot ~ ' O l d ~ w o m a n!' ~
\]
xmí•k 'Young man!'
\[
k \not \mathbf{I}_{\text {múš }} \text { 'Mary! }
\]
\[
\text { ú•n }{ }^{y} \text { 'Edward:' }
\]
840. Melody. It does not seem possible to avoid the conclusion that each of the prosodic features described in 113 has phonemic status and deserves to be so marked along with the phonemic representation of the segmental consonants and vowels. The marking of the prosodic features of stress, length, juncture, and even the terminal contour presents relatively little difficulty. The indication of the pitch level of each syllable by a superscript number or similar device, on the other hand, results in an unattractive and formidable clutter of symbols, tedious to decipher. In Cocopa, as in other languages, a sentence composed of the same segmental phonemes can be embraced by more than one construction of pitch levels and terminal contours. And it is equally true that other prosodic features cen show variations in the same 'sentence'. The present analysis has not proceeded to a point that will permit a definitive statement to be made regarding these features and their relationships.

However, a number of recurrent constructions of pitch
levels and terminal contours (i.e., melodies) correlate with certain syntactic constructions in a general fashion. These constructions are referred to as 'standard melodies'. These correlations are presented below with the identifying punctuation marks which will henceforth be used in illustrations of major sentences and in the sample text.
1. Period (.) With one exception the use of the period is characterized by a falling terminal contour \(/ \downarrow /\). All unstressed syllables in the sentence usually have pitch level / / , but may have / \(2 /\). A final unstressed syllable always has /1/. The construction of pitch levels occurring with a typical declarative sentence on the stressed syllables is most often one of the following: (The final number represents the last stressed syllable. The midale number represents the penultimate stressed syllable. The first number represents preceding stressed syllables.)
\[
/ 222 /, / 221 /, / 232 /
\]

An interrogative sentence formed by means of the interrogative suffix -a (871) almost invariably has pitch level /3/ on the final stressed syllable. The most common construction of pitch levels for this type of sentence is: /223/

A declarative sentence with one of the following constructions of pitch levels is most commonly one which is an affirmative answer to a question:
\[
/ 213 /, / 313 /
\]

The period when used with a negative statement, especially when the final syllable is lá•x 'no, be not', denotes a
rising / \(\uparrow\) / rather than a falling terminal contour. The construction of pitch levels present is usually:
/232/
2. Question mark (?) The use of the question mark is characterized by a rising / \(\uparrow /\) terminal contour with pitch level /3/ on the final syllable whether stressed or unstressed. Non-final unstressed syllables may have /l/ or /2/. The most common pitch level construction is: /223/

The rising terminal contour with the above pitch level construction appears to constitute the standard melody for most interrogative statements which do not attach the interrogative suffix -a. The following constructions of pitch levels also occur with the rising terminal contour:
\[
/ 323 /, / 313 /
\]
3. Comma (,) The use of the comna is characterized by the sustained /// terminal contour. It signifies that the utterance is not completed. A slight pause normally follows. The use of the comma will be restricted to these situations:
1. Following an interjection which relates semantically to, or is felt to be naturally associated with, the following macrosegment.
2. Before an interjection when the preceding utterance is felt to be related semantically or to be naturally nssociated.
3. Following a nominalized or dependent clause
when a slight pause actually occurs before the following macrosegment.
4. Before a nominalized or dependent clause when a slight pause actually occurs following the preceding macrosegment.

In all the above situations the use of the comma will denote the sustained / / terminal contour. In the event that the interjection or clause has one of the other terminal contours, the period or question mark will be used, indicating that it is a major or minor sentence.

One other punctuation device will be used in the sample text:
4. A sequence of three periods (...) This punctuation will separate independent clauses which constitute a sentence with an intervening / / terminal contour and pause.
850. Minor sentence. A minor sentence is an utterance which reveals no syntactic structure, occurring only in the context of a major sentence. Most exclamations (831) and any vocative (832.2) may comprise a minor sentence. A typical minor sentence is an utterance which consists of a noun phrase or an interjection in response to a question. Speech melodies possible for a minor sentence run the whole gamut.
860. Major sentence: declarative. A major declarative sentence is one whose termination is punctuated by a period and which consists of one or more than one clause. A declarative sentence can be simple, coordinate, complex,
compound, or compound-complex.
861. Simple sentence. The prerequisite of a simple sentence is that the clause which constitutes the sentence be independent and that its predicate consist of a single verb phrase. An independent clause which forms a simple declarative sentence may either attach to its predicate the syntactic suffix \(-c\) or \(-k\), or have no overt syntactic marker.
1. A simple sentence can consist of a clause with no overt subject whose predicate is a verb phrase only: \(k^{W}\) ª́rkWár k?ik. "Talk! Say something:" poukwir. 'He follows him.' šumác şa•yákc uyuṣ. 'He's lying over there asleep' . (Lit., 'he-sleeps he-lies-there he-does') şá. 'He's going along there.'
 (Lit., 'it's-little it's-dry') pawpác. 'He did it to him." šumáx ac. 'He says he will sleep.' (Iit., 'he-will-sleep he-says') ms̛uráy in \({ }^{\text {Yá }}\).m. 'He's very angry.' (Lit., 'he-is-angry it-is-very-much')
2. A simple sentence can consist of a clause with an overt subject whose predicate is a verb phrase only: apác awyá•. 'The man knows.' apápic \(\mathrm{n}^{\mathrm{y}}\) awyá•. 'This man knows me.'
(Lit., this-man he-knows-me')
\(n^{\mathrm{Y}} \mathrm{a}^{2} \cdot \mathrm{c}\) pu•yá•c yuṣ. 'I recognized him; I knew who he was.' (Lit., I know-him I-do')
\(q^{W}\) áqs xutú•px ac. 'The horse wants, is going, to buck.' (Lit., Horse he-willjump he-says')
xmíckc \(n^{\mathrm{y}} \mathrm{i} \cdot \mathrm{pu}^{2}\) á. 'The young man is standing there.'
mapún \({ }^{\mathrm{y}} \mathrm{mn}^{\mathrm{Y}} \mathrm{cá} \cdot \mathrm{c}\) pa•wá xṣukáyc uyuṣ. 'Your mother is not dead, is still alive.' (Lit., 'Your your-mother she-sits she-still-is she-is')
3. A simple sentence can consist of a clause with no overt subject whose predicate consists of a verb phrase preceded by one or more noun phrases:
\(n^{y}\) á•p \(n^{y}\) wán \(^{y}\) ppá•c ṣayu. 'It stands there in my house.' (Lit., 'Mī in-my-house it-stands it-is-there')
\(n^{\text {y }}\) ṣay wa•ya•c uyus. 'He is around there, in that place.' (Lit., 'There he-isaround he-is')
apá ašít pa•ṣác. 'He bit, ate one man.' (Lit., 'man one he-bit-him')
kú•c \(n^{\mathrm{y}}\) awá \(\mathrm{n}^{\mathrm{y}}\) ṣáz \({ }^{\mathrm{y}}\) uwáṭ. 'He threw (them)
into the pigs' house.'
(The noun phrase is appositive. \(n^{\text {y }}\) șáa \(^{\mathrm{y}}\) is in apposition with the possessive
phrase kú•c \(\mathrm{n}^{\mathrm{y}}\) awá. (Lit., 'pig hishouse in-it he-threw')
\(\mathrm{n}^{\text {Y }}\) awí• \(u^{\circ}\) áspin \({ }^{\text {Y }}\) ré• pi•c. 'She gave the king her things.' (The noun phrase \(\mathrm{n}^{\mathrm{Y}} \mathrm{awí}^{\text {• }}\) u’áspin \({ }^{\mathrm{y}}\) (813) is the direct object of the verb. ré is the indirect object. If ré preceded the noun phrase, the sentence would mean 'She gave someone the king's things.' The relative positions of two or more noun phrases in the predicate varies. However, the one which is the direct object of the verb normally occupies a prior position as occurs in the next two examples.)
 food into it.' (Lit., 'thing food in-it he-threw')
 gave the old woman the wings.' (Lit., 'Thing these-wings the-old-woman he-gave-her')
4. A simple sentence may consist of a clause with an overt subject whose predicate consists of a verb preceded by one or more noun phrases:
ré•c şxápin' pa•yá•x ac. 'The king says he will marry the girl.' (Lit., 'King
this-girl he-will-take-her he-says') apác \(k^{W}\) ák pa•tím. 'The man shot the deer.' (Lit., 'The-man deer he-shot-him.') \(q^{W}\) áqšc xasán \({ }^{\text {Y }}\) pa•ṣa•c. 'The horse bit the little girl.' (Lit., 'Horse girl he-bit-her')
 father gave my younger sister two dollars.' (girl speaking) (Lit., 'My myfather money two my-younger-sister he-gave-her \({ }^{\prime}\) ) xmí•kpic \(\mathrm{n}^{\text {y }}\) awí \(\cdot\) urár wa•yá•c. 'The young man was around doing things.' (Iit., 'This-young-man thing he-isoccupied he-is-around')

It may be observed in the above examples with an overt subject that the subject does not always attach the syntactic suffix -c. Its affixation appears to be required only when the noun or nounphrase ends in a vowel and when ambiguity would result from its absence, e.g., when there is a noun or noun phrase following which could either be part of the predicate or form a noun phrase with the preceding noun. Compare the following:
\(k^{W}\) ák apá pa•wíc. 'He saw the buck (male deer).' (Lit., 'deer man he-saw-him') \(k^{W}\) ákc apá pa•wíc. 'The deer saw the man.' \(\mathrm{k}^{\mathrm{W}}{ }^{\text {ák }}\) apác pa•wí•c. 'The buck saw him.'
\(k^{W}\) ák apác apá pa•wíc. 'The buck saw
the man.'
( \(k^{W}\) ák apá is probably better considered
a compound, rather than a noun phrase;
see 714. )
862. Coordinate sentence. A coordinate sentence consists of an independent clause which contains two or more predicates. The sentence may have no overt subject or it may have a single overt subject which is the subject of both or all the predicates of the clause. The clause, in effect, is merely a sequence of predicates whose reference is to the same subject. The verbs or verb phrase of several, or even all, of the predicates may affix -c or -k . \(-c\) and -k are mutually exclusive; one or the other only may be the syntactic suffix in a coordinate construction. (This is not to say that both suffixes cannot be present in the same sentence. It is possible for both to be present in a complex sentence; (see 863.1 and 863.2.1.) - \(k\) implies a future action. The absence of a syntactic suffix and -c both denote either a present or past action. (See 485.4 for inflective aspects of -c.)
1. Absence of a coordinating syntactic suffix. Coordination of the predicates is accomplished by position and the absence of the subordinating suffix -m . Absence of a suffix has an inflective function (485.4):
\[
\begin{aligned}
& k^{W} r^{`} \text { ák pa•yí• páy pšu-wín. 'The old man } \\
& \text { is coming along and stops him (the horre) } \\
& \text { here.' (Lit., 'old-man he-comes here }
\end{aligned}
\]
he-stops-him')
Sác umán wáł \({ }^{\text {Y }}\) uxáp ṣú•k supám. 'The bird flew through the house.' (Iit., 'bird he-flew in-the-house he-entered over-there he-went-outl)
capá•y \(\mathrm{n}^{\mathrm{y}}\) kumís \(\mathrm{n}^{\mathrm{y}}\) ka•káp kuwá•k. 'The people arrived, then turned around and went home.' (Lit., 'people they -arrived they-then-turned-around they-went-home ')
2. - as a coordinating syntactic suffix. Far more common than the above is the affixation of \(-c\) to one or more verbs in the sequence of predicates:
 the money and put it into the cup.' (Lit., 'Money he-picked-it-up cup he -put-into')
mapúc upú•k myí•k mpá•c myus. 'You came from over there.' ( -k in myíok is inflective (430.5), as well as in the pronoun upúrk (543). Lit., 'You from-there you-came you-arrived youdid')
\(\mathrm{n}^{\mathrm{y}} \mathrm{a}^{\prime} \cdot \mathrm{c} \mathrm{n}^{\mathrm{y}}\) awí• pa•sá•m paná•k paṣác payáks. 'I kill everything, I can kill anything.' ( \(\mathrm{n}^{\mathrm{y}}\) awí \({ }^{\text {pa }}\)-sá•m 'everything' is an animate verbal noun, object of the following two verbs. Lit., 'I thing all I-kill-him I-bite-him I-lie-here')
3. \(-k\) as a coordinating syntactic suffix. This suffix in a coordinate sentence is attached to the verbs in the predicate or predicates which precede a predicate whose verb attaches the intentive \(-x\) and to a verb in the imperative: (See 801.5 for further description of -k and its position relative to inflective suffixes.)
\(\mathrm{n}^{\mathrm{Y}} \mathrm{a} \cdot\) pác yúk s?ák yá•x ic. 'I'm a man who intends to get married.' (Lit., 'I-who-am-a-man I-am woman I-intend-toget I-say.' This sentence is probably to be considered as an indirect quote; 863.2.1.)
ckwí•mk cwa’ú•r makápin \({ }^{\text {y }}\) kyá•k. 'Take any chair you like.' (Lit., 'Be-indifferent chair whichever take.') ká•k n \({ }^{\text {Y }}\) awí• kmák kpá•k. 'Go eat and come back.' (Lit., 'Go thing eat arrive-here'.)
 pawíwn \({ }^{y_{x}}\). We are going to be there to eat and see people.' (Lit., 'We-aregoing in-it-there we-are-around we-intend -to-eat-also people we-intend-to-see-them-also'.)
 husband were here, he would shoot you.' (Lit., My my-husband he-is-here-but he-will-shoot-you.' See 485.3 for use of inflective -s.)
863. Complex sentence. A complex sentence contains one or more dependent or nominalized clauses and an independent clause. The independent clause is a potential simple or coordinate sentence.
863.1. A complex sentence with dependent clause. The subject in a dependent clause, whether or not overt, can be the object of the action denoted by the veri or verbs in the independent clause, or an action denoted by the verb of the dependent clause can precede or accompany the action dencted by the verb in the independent clause. A clause whose verb or verbs have attached the syntactic suffix -k may by affixing -m be a dependent clause, in which case future action is implied for both the dependent and independent clause. Following a fairly long dependent clause there often occurs in the independent clause a personal fronoun which is in apposition with, not the dependent clause itself, but rather, the subject of the dependent clause or the action denoted by the verb therein. The characteristics of a dependent clause are that it attaches the subordinating syntactic suffix -m and that it does not function alone as a major sentence.

Imintán sawám awkúpca. 'She opened the window there.' (Lit., 'window which-was-there she-opened.')
ré• \(\mathrm{n}^{\mathrm{y}} \mathrm{awáá}^{\mathrm{y}}\) pá•m, ṣxá•pic uwí• \(\mathrm{n}^{\mathrm{y}} \mathrm{ca}\). 'When it arrived at the king's house, the young girl looked at it too,' (Lit.,
'King in-his-house when-it-arrived the-young-girl she-looked-at-it-too.') pwám, pa•wí•c pá•n \({ }^{\mathrm{y}} \mathrm{pin}^{\mathrm{y}}\) awṣút uyá•c uwí•m,
 he arrived, she looked at him, she pulled out his handkerchief and took it, and when she looked at it, the young girl's name was there.' ( \(\mathrm{n}_{\mathrm{i}} \cdot\) yá puyá• 'it was there'. The stem of both verbs is yá• 'be located (inanimate object), occur, happen', homonymous with yá• 'I pick up'. For \(n^{y_{i}} \cdot-\) and pu- see 440 and 450.)
ré• \(\mathrm{n}^{\mathrm{y}}\) awác sayá•m, \(\mathrm{n}^{\mathrm{y}}\) ṣá \(^{\mathrm{Z}}{ }^{\mathrm{y}}\) pwámca. 'He arrived there at the king's house.' (Lit., 'King his-house which-is-there in-it he-arrived.')

A few comments are pertinent regarding the form puyám which appears in the last sentence above, and other forms in which the verb yá 'happen, take place, be located' may appear, e.g., payá•, puyá•, \(\mathrm{n}^{\mathrm{y}} \mathrm{i} \cdot \mathrm{yá} \cdot\), puyá•c, etc. This verb apparently is impersonal intransitive. It is very common in one or the other of its inflected forms either as a single verb or as the first verb of a verb phrase which is the final phrase of a sentence. It seems to denote that whatever has been said has happened, is happening, or will happen. The verb which immediately precedes usually has
attached the subordinating suffix \(-m\). However, if the preceding verb is inflected for first person and has the intentive suffix -x, it (the preceding verb) does not attach -m. In such instances, one is led to suppose that puyá may denote first person rather than inanimate third person. (This would be the expected form of the first person.) It apparently does not, as informants insist that puyá and similar forms refer to the situation and not to the 'I' of the preceding verb. Examples of this are: \(\mathrm{n}^{\mathrm{y}}{ }^{\text {awí }}\) • ará•r \(1^{\mathrm{y}}\) cás \(\mathrm{n}^{\mathrm{y}}\) yá•x puyá•c yu. 'I have a little job for you.' (Iit., 'Thing work little I-will-get-you ithappens it-does.' yá•in \(n^{y}\) yá• \(x\) is the homonymous verb meaning 'I get, pick up', different from the yá• of puyá•c which means 'it happens'.)
 yus. 'I'll pay you what you say you want.' (Lit., 'thing you-want which-you-say I-will-pay-you it-happens itdoes.')

It is possible to consider the verb or verb phrase which contains yá as being in apposition with the preceding clause, whether or not the preceding verb has attached \(-m\). Without \(-m\), however, the preceding clause is independent. With \(-m\) attached, on the other hand, the preceding clause is dependent and may not be as a rule a sentence with-
out some form of yá• (or other verb) following.
863.2. A complex sentence with nominalized clause. The nominalized clause functions either as the subject to the predicate of a clause (independent or dependent) or as object of a verb or verb phrase in the predicate in which case it is itself part of the predicate. The distinguishing feature of a nominalized clause is the lack of reference from the independent clause to any syntactic unit within the nominalized clause. The reference is rather to the entire clause functioning as a unit. The suffix -c can attach to the final verb of the clause to denote subject. The lack of a suffix denotes object. More commonly used, however, are the demonstrative suffixes (531): -pic or -sic for subject and -pin \({ }^{y}\) or \(-\sin ^{y}\) for object. All appear to be optional and used primarily to prevent ambiguity. The verb in the nominalized clause is commonly inflected for plural. makáy uwás u•yácc iṣ. 'I know where he is.' (Lit., 'where he-is-locatedsìtting (-s distributive subject plural) 'I-know I-do.')
\(n^{y} y_{m c a ́} \cdot u y u^{s p i n}{ }^{y}\) an \({ }^{\mathrm{y}}\) ca. 'He did what the mountain lion did.' (Lit., 'mountain-lion what-he-did he-did-too.')
lú•p uṣíxpin \({ }^{y} n^{y}{ }^{\text {knn }}{ }^{\mathrm{y}}\) á•pk. 'Tell me what he wants to drink.' (Lit., 'something what-he-intends-to-drink tell-me.')
\(n^{\mathrm{Y}}\) akúr awyá• \(n^{\mathrm{y}}\) sú•c \(n^{\mathrm{y}} \mathrm{Z}^{\mathrm{Y}}\) uwáxpin \({ }^{\mathrm{y}}\) a. 'He knew also for a long time of his being in it.' (or: 'He has also known for a long time that he would be in'it.) (Lit., 'For-a-long -time he-knows-also that-one he-will-be-sitting-in-it.')
\(\mathrm{n}^{\mathrm{y}} \mathrm{awín} \cdot\) mmáspin \(^{\mathrm{y}} \mathrm{u} \cdot \mathrm{yá} \mathrm{\cdot c}\) pawá. 'I know that you are eating.' (Lit., 'Thing you-eat Iknow I-sit-here.')
makáy mṣupáspin \({ }^{\text {y }}\) wí•c yuṣ. 'I saw where he died.' (Lit., 'where he-died I-saw I-did.' The form wíc 'I saw' is preferable here, but one may also say pa•wí•c 'I saw him'. In the latter there obviously is a reference to the subject of the verb mṣupás 'he died'. If pa•wíc is used, the meaning is apparently 'I saw him as he died, or while he was dead.')
863.2.1. Quotations. It is often difficult to distinguish a direct quote from an indirect one. It seems proper to consider the former a special type of nominalized clause, and possibly the latter as well. It may be the context as well as an undetected difference in melody which
distinguishes the two types of quotations. The quotation is the nominalized clause followed by an inflected form of 1 'say'. The quotation can be broken with í interjected at a logical point within. The following is an example of a direct quotation. Double quotes enclose the quoted speech:
\[
\begin{aligned}
& \text { "xmí•k" ac "má•k } \mathrm{x}^{\mathrm{W} a ́ ~ p m s k}{ }^{W} \text { ayá•wx ic payí•c yuṣ." } \\
& \text { '"Young man" he said, "You (are to) go } \\
& \text { teach the soldiers (I say as I come along, } \\
& \text { I do)."' }
\end{aligned}
\]

The following are ambiguous. The contexts, however, imply that they are indirect quotes:
mú•r ašít \(n^{\text {V }}\) awáy pwá ac. 'She said that \(N u \cdot r\) arrived at his house alone.' ci•xáyx ic. 'I said it would be windy.'

A special type of indirect quotation involves the verbal noun \(\mathbf{k}^{\mathrm{W}}\) rás (derived from i 'say, do'). Occurring finally in a sentence and unstressed it denotes that the action stated in the sentence is to be equated with a previous statement as to what the action will be. It is perhaps possible to consider the portion of the sentence preceding \(k^{W} \rho\) ás a nominalized clause to which \(k^{W}\) 甲ás is in apposition, although the sentence as a whole would then have no independent clause. Compare the following examples: \(n^{\mathrm{y}}\) awí• vú•r ušítm psukwá ac. 'He said that he
asked him for one donkey.' (Lit., 'thing donkey one he-asked-him he-said.' \()\) \(n^{y}{ }^{\text {awí }}\) • vú•r ušíṭm psuk \({ }^{W}{ }^{\prime} \cdot k^{W}\) Pas. 'He asked him for one donkey, as he was told to do (as he said he would do).'
863.3. A complex sentence with dependent and nominal-
ized clauses. A complex sentence with both types of clauses is not essentially dissimilar from a complex sentence in which one or the other is absent:
sxuṭúsṣin \({ }^{\text {y }} \mathrm{Z}^{\mathrm{Y}}\) numákm ṣawác ica. 'It was that spit she left in it that said it.' (Lit., 'She-spit-there which-she-left-in it-was -there it-said.'
\(k^{\mathrm{W}} \mathrm{akú} \cdot \mathrm{n}^{\mathrm{y}} \mathrm{i} \cdot \mathrm{psn} \mathrm{n}^{\mathrm{y}}\) upís \(\mathrm{n}^{\mathrm{y}_{\text {kun }}}{ }^{\mathrm{y}}\) á•pm, xrupáy \(\mathrm{n}^{\mathrm{y}}\) awí• wáyk \({ }^{W}\) apít má•m pwán \({ }^{\text {y }}\). 'When she told of the old woman bewitching him there, the crazy one was close by, and then he also arrived.' (Iit., 'old-woman there-she-bewitched-him this-she-told he-was-close -by thing crazy-one then he-arrived-also.')
864. Compound sentence. A compound sentence contains two (and possibly more) independent clauses. One clause, ordinarily the first, is subordinate to the other in a semantic sense. A first clause which is subordinate is usually followed by some form of the personal pronoun, to which the clause can be said to be in apposition. Such a clause is not essentially different from a dependent clause in its function in the sentence. It merely lacks the syntactic suffix - \(m\). The subjects of the predicates of the clauses in a compound sentence usually are identical, but are not necessarily so:
\(q^{W}\) áqš mák uyí•c \(n^{\text {y }}\) sác putáyxan \({ }^{\text {y }}\) ṣa•yí• uyu aca.
'The horse coming behind was the biggest, he said.' (Lit., 'horse behind he-comes
that-one he-is-very-big he-comes-there he-is he-said.') wí•c muxá•m yák puyák \(\mathrm{n}^{\mathrm{y}}\) sán \(^{\mathrm{y}}\) pwáme ukúa \({ }^{\mathrm{Y}} \mathrm{c}\) uwí•c spuá•m, lá•xxan \({ }^{y}\). 'He went up to a mountain lying a little ways off, climbed it, stood on the top, and when he looked, there was nothing (to be seen of them).' (Lit., 'mountain a-little-ways-off it-lies it-liesthere that-one he-arrived he-climbed in-the-above he-stood he-looked when -he-stood-there nothing-very-much.')
865. Compound-complex sentence. A compound-complex sentence contains two (or more) independent clauses, simple or coordinate, and one (or more) dependent or nominalized clause:
 pawác pawác. 'He sat there then and chased flies as he told him to do while he slept'. (Lit., 'there he-sat now flies he-chased-them that-which-was-said he-slept he-lay-there-while he-sathere he-sat-here.')
870. Major sentence: interrogative. An interrogative sentence may, like a declarative sentence, be simple, coordinate, oomplex, compound, or compound-complex. Its status as interrogative is indicated by an interrogative
suffix, by a characteristic melody, or by a characteristic melody and an interrogative suffix. The formation of an interrogative sentence is presented according to the process involved.
871. Suffixation of -a. A declarative sentence can be made interrogative by attaching -a to a verb which is sen-tence-final, provided: it is not yú 'be, do'; it is a verb other than í 'say', or a?i 'do', functioning as an auxiliary to a main verb; it is the main (or only) verb of the predicate, which may be ír api. It ordinarily does not attach to a verb with the intentive -x. One example is known of its affixation to what is apparently a verbal noun:
\(\mathrm{n}^{\mathrm{y}}\) á kla`áma. 'What time is it?' (The derivation of the verbal noun is uncertain. Alone, without \(n^{\mathrm{y}}{ }^{\mathrm{a}}\) 'day, sun', it means 'how much, so much'.)
The melody accompanying an interrogative sentence formed with -a contains a falling terminal contour and more closely resembles that of a declarative sentence than that accompanying one formed by the other two processes. It is for this reason that the punctuation marik is a period (See 840.1): makám uxápa. 'Where did he go ("enter")?' (Cf. makám uxáp. 'He went somewhere.') mapúc pmu•yá•a. 'Do you know him?' \(n^{y_{a}^{a} \cdot p} n^{y}\) mwi•a. 'Do you see me?' mapúc kafí åís mṣía. 'Did you drink my coffee?' mapúc kafí ma?ís msía. 'Did you drink your coffee?'
ma'ía. 'Did you do it?' (Cf. ma?ís. 'You did it.'
mi•cúc rápa. 'Does your belly ache?' mšmá•I makápic rápa. 'Yhich of your ears aches?' makáy uyáka. 'Where is he lying?' apác umíc puyáka. 'Is the man crying?' (Iit. 'the-man he-cries he-is-lying-here-question'. mapúc mxpcú' \(n^{Y} \times\) mp?á•a. 'Are you goine to church?'
(Iit., 'You you-intend-to-go-to-church you-are-standing-question'.)

Šác umán makáy wáma. 'Where is the bird?' (Iit.,
'The-bird he-is-flying somewhere he-goes -away-from-question.')
mwí \(n^{Y}\) a. 'Do, did you see it too?'
a?in \({ }^{\mathrm{y}}\) xa. 'Shall I do it too?'
makáy wa• \(\mathrm{n}_{\mathrm{i}} \cdot \mathrm{m}\) pmwíwa. 'Where were they when you saw them?' (Lit., 'Somewhere they-arearound you-saw-them question.')
872. Characteristic melody. A declarative sentence may be made into an interrogative sentence by means of a melody whose terminal contour is rising and whose pitch level on the final syllable, whether stressed or unstressed, is /3/. Such melody is indicated by the punctuation mark: ? (See 840.2). This manner of forming an interrogative sentence appears to be used primarily when there is direct or indirect reference to the future and in negative questions,
and only when the final syllable of the sentence consists of the root syllable of an inflected form of either í 'say' aPí 'do', or yú 'be':

Iu?ík kn \({ }^{\text {y }}\) apx i? What shall \(I\) say? How shall I say it?'
\(n^{\mathrm{Y}}\) á kayúm mkwé•kx i? 'What day will you come back?'
makápic má•x ic? 'Which of you is going?' (ILt.,
- 'Thich you-intend-to-go I-say-question.')
makápic áx i? 'Which of us is going?' lú•p kmṭíc mwayá•c ma?íc? 'What are you doing?' (Lit., 'Something you-are-doing you-arearound you-do-question.')

Iu’ác? 'What did he say?' (Lit., 'He-said-something-question.')

Ipmu'yá•m ic? 'Don't you know me?' (Iit., 'You-don't-know-me I-say-question.' For formation of negative see 470.)
\(n^{Y}\) á•p \(\ln \mathrm{y}_{\mathrm{mWi} \cdot \mathrm{m}}\) myúc? 'Don't you see me? (Iit., 'Me you-don't-see-me you-do-question.')
kayŕm ic má•x ic? 'Why are you going?'
\(\mathrm{kn}^{\text {Y ayúm má•x ic? 'When are you going?' }}\)
makák myí•c myúc? 'Where did you cume from?' kmyúk má•x ic? 'How are you going?'
873. Characteristic melody and suffixation of \(-m\). The melody is that described in 872. The use of the interrogative suffix -m is restricted for the most part to one of the three verbs: \(\mathcal{I}^{\prime}\) 'say', \(a^{\prime \prime} \mathcal{I}^{\prime}\) do', yú 'be' functioning as an auxiliary verb in final position in the sentence.

When attached to one of these verbs the root syllable is usually stressed. In the apparentiy rare instance when it attaches to verbs other than one of these three, the final syllable (which actually consists of the suffix itself) is never stressed. An example of the latter is:
\[
\begin{gathered}
\mathrm{n}^{\mathrm{Y}} \text { má } \mathrm{mm} \text { ? '(Are you) ready?' (See } 131 \text { for syllable } \\
\text { boundaries.) }
\end{gathered}
\]

In contrast to primarily future reference of the characteristic melody when used alone (872), the accompaniment of the melody by the suffix -m seldom has future reference. The following illustrate the use of this suffix with the three auxiliary verbs:
makác uyúm? 'Who is tnat?'
lú•pc uyúm? 'What is that?'
lú \({ }^{n}{ }^{\text {y }}\) c uyúm? 'What is that?'
luPíc ím? 'What did I say? (Lit.,'I-said-something I-said-question.')

Iú•p kayúx payá•c yum ám? 'What's going to happen?' (Lit., 'Something it-will-be-indefinite it-happens it-is- which it-says-question.' Note that yum is unstressed.) makám wáxc uyúm? 'Where is he going!' cwaPú•r makápin \({ }^{\mathrm{y}} \mathrm{n}^{\mathrm{Y}}{ }^{\text {á }} \cdot \mathrm{p} \mathrm{n}^{\mathrm{Y}}\) aРísc yum? 'Which chair is mine?'
cwa?ú•rpin \({ }^{\text {Y }}\) makán \({ }^{\text {y }}\) uPásc yum? 'Whose is that chair?' makáy kmyím yum? 'Where are you?' (Iit., 'Somewhere you-are-indefinite it-is-question.')
```

ka?im? 'How is it?'
kayú}\mathrm{ ák uyum? 'Why does he do it? Why does
he act like that?'
Iú*p u`ác (or ktu`ác) wa`n}\mp@subsup{n}{}{Y
are they doing.' (Iit., 'something they-
do they-are-around they-are-question.')

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\section*{APPENDIX I}

\section*{AFFIX POSITION CHART}

The following charts attempt to show the positions of tine various affixes relative to the verb and noun roots. Derivative affixes are underlined once. Syntactic affixes are underlined twice. Inflective affixes are not underlined.

The affixes are identified as follows according to position class with references to their descriptions within the grammar.

Verb: prefixal position:
9. \(\mathrm{n}^{\mathrm{y}}\) - referential indefinite (440)
8. \(z^{Y}\) - positional affix (430.1)
7. \(1(u)\) - non-referential definite (462) and prefixal element of the negative affix (470)
6. \(n^{\dagger}-, m-p-\) personal pronominal object prefixes (411, 413) and mc- reflexive (413); pa-, pu-, sa-, c- locative-temporal (450); ka-, kt- non-referential indefinite (461)
5. m- second personal subject prefix (412)
4. Instrumental prefixes \((614,615), k^{W}\) - definite prefix which derives nouns from verbs (721); and \(k-, m-\) positional affixes (430.2, 430.3); \(n^{\text {Y }}\) - referential indefinits (440)
3. \(s^{-}, c^{-}\left(t_{0}\right), n^{3}-p l u r a l\) prefixes (421.1, 421.2, 421.3)
2. Third personal subject prefix (u-, etc.) (412) and derivative prefixes a- (611, 722), wa- (611.1), i•- (612),
and ya- (612.1)
\[
\text { 1. } n-, n^{y}-\text { diminutive (613) }
\]

Verb: suffixal position
1. \(-s,-p\) plural suffixes (421.4, 421.5), \(-m\), -k positional affixes (430.4, 430.5), -wa benefactive suffix (481), -a interrogative suffix (801.7), and -m interrogative suffix (801.6)
2. \(-n^{y},-n^{y_{i}}\) imitative suffix (482)
3. -y, -ya, -i•- habitual, usitative, continuative (483)
4. -x intentive (484) and -k future coordinating suffix (801.5)
5. \(-\mathrm{I}^{\mathrm{y}}\) desiderative-potential (485.1), -pa mild emphatic (485.2), -s assertive (485.3), -c perfectivesequential and present-past coordinating (485.4, 801.1), and \(-m\) subordinating (801.4)

Noun: prefixal position
3. \(m-, n^{Y}-\) second and third person pronominal prefixes (510, 511, 512)
2. \(n^{\mathrm{y}}-\), i•-, \(m-\) derivative prefixes (711, 712, 713)
1. c- plural prefix (520.3); a- third person pronominal prefix (512); u- third person pronominal prefix attached to pronouns (541, 543)

Noun: suffixal position
1. -s plural suffix (520.2) and -y derivative suffix (621)
2. Case suffixes (530, 531)

\section*{VERB}


VERB

Suffixal position


NOUN
\begin{tabular}{|c|c|c|c|c|c|}
\hline 3 & 2 & 1 & Root & 1 & 2 \\
\hline\(m-\) & \(n^{y}-\) & \(c-\) & & \(-s\) & Case \\
\(n^{y}-\) & \(\underline{i}^{\cdot}-\) & \(-a\) & & --- & suff \\
& \(\underline{m}-\) & \(-u\) & & \(-y\) & \\
\hline
\end{tabular}

\section*{SANPLE TEXT}

The following short text is excerpted from a long narrative about Coyote's adventures. Its analysis in schematic detail will illustrate a considerable number of the possible constructions in the language.

Iines are drawn connecting the immediate constituents of constructions. Syntactic suffixes are separated by dashes.

A glossary follows the text with references to the various inflective processes.

The following abbreviations are used in the analysis:
\begin{tabular}{ll} 
NP & Noun phrase consisting of one noun \\
& or pronoun \\
NPdir Noun phrase: directive (813) \\
NPpos Noun phrase: possessive (811) \\
NPatt Noun phrase: appositive (814) \\
VP & Verb phrase ccisisting of one verb \\
VPatt Verb phrase: attributive (821) \\
VPaux & Verb phrase: auxiliary (822) \\
VPper & Verb phrase: periphrastic (822.1) \\
Subj & Subject (800.3) \\
Pred & Predicate (800.4)
\end{tabular}
Csim-ind Clause: simple and independent (800.5)
Csim-dep Clause: simple and dependent (800.5)
Ccoo-ind Clause: coordinate and independent (800.5)
Ccoo-dep Clause: coordinate and dependent (800.5)
Interj Interjection (830)
Ssim-dec Sentence: simple and declarative (861)
Scoo-dec Sentence: coorcinate and declarative (862)
Scpl-dec Sentence: complex and declarative (863)
Scmp-dec Sentence: compound and declarative (864)
Ssim-int Sentence: simple and interrogative (870)
Scmp-cpl-dec Sentence: compound-complex and

Smin declarative (865)
Qind Sentence: minor (850)
Qdir Quote: indirect (863.2.1)
Qind-nom Quote: indirect and nominalized (863.2.1)

\section*{Coyote}
1. márk, xṭpác șá•c uyú ac in \({ }^{Y}\) pa.
2. xṭpác şá•c usítuan \({ }^{\text {y }}\) şá•c uyu ac.
3. ušít ṣá•c má•m ... n \({ }^{y_{i}} \cdot\) wáy ca•wí•m s.á \(\cdot \mathrm{c}\) uyu ac.
4. şá• şá•c má \(\cdot \mathrm{m} . .\). wan \(^{\mathrm{y}}\) ám cupít sá•m ac, \(\mathrm{n}^{\mathrm{y}}\) awí•
 uyŕ ac in \({ }^{\mathrm{y}} \mathrm{pa}\).
5. pa•wí•c ac.
6. "xút, apápin \({ }^{\mathrm{y}}\) apá xacáqxan \({ }^{\mathrm{y}}\) pa•yí•c.
7. wa•yá•k \(n^{y_{a}} \cdot x a ́ \cdot 1^{y} n^{y} a \cdot n a ́ k x ~ p a \cdot y i ́ \cdot c ~ u y u s ̣ . " ~ a ́ c ~ a c a . ~\)
8. pa•yí•c pukáwca.
9. pukáwm ac ... "áwka, \(\mathrm{n}^{\mathrm{y}} \mathrm{xú} \cdot 1\) makám má•x myu’"
 yuṣ." á ac.
 kyí•k." pa・ワac.
12. xṭpápin \({ }^{y} \mathrm{pa} \cdot \mathrm{yá} \cdot \mathrm{C}\).
13. \(\mathrm{pn}^{\mathrm{y}}\) wác \(\mathrm{pn}^{\mathrm{y}} \mathrm{yác}^{\text {. }}\)

15. şáy wa•yá \(\cdot\) c maṭ "crupúy ṣwa•yá•c ṣáy upát uyu ac \(\mathrm{n}^{\mathrm{y}}\) mcá•pica.
16. "páy pát šmák payákm má•m ... \(\mathrm{n}^{\mathrm{y}}\) ác şkruwárm mán.

18. xṭpápin \({ }^{\text {y }}\) pa・ワáca.
19. "px"áy."
20. "Šxlmú pmn \({ }^{\text {y }}\) wíl páy pát šmáx payá•c."

21．＂px＂áy．＂
22．Sáy uwác má•m šximú \(\mathrm{pn}^{\mathrm{Y}}\) uwíl \(\mathrm{k}^{\mathrm{W}}\) 〇as šumác ṣa• yákm pa•wác pa•wác．

23．\(n^{\mathrm{y}}\) ác kuwárxan \({ }^{\mathrm{y}}\) umánc uyu aca．
24．umán．
25．＂px＂áy．
26．mapíi \({ }^{\mathrm{y}} \mathrm{n}^{\mathrm{y}}\) awí• mí•Šwá•主．

 puyá•m．＂pa・ワá ac．

29．＂kyi̊k．＂am má•m pn \({ }^{\text {y }}\) wáca．
30．xác puyákm \(\mathrm{n}^{\mathrm{y}} \mathrm{kumím}\) ．
31．x？ác ptafily \(n^{y} p\) pá \(\cdot c\) p？á•c yu ac．

33．xṭpápic ukúz \({ }^{\text {Y }}\) wa•yá•c．
34．Iá•xxan \({ }^{\text {Y }}\) ．．．Iu＇kúz \({ }^{Y}\) m uyúm yú aca．
35．＂yú•ṣ，kyaráwk kkúz y xu•c．＂
36．＂lá•x kayúk kúz \({ }^{y}\) x．

38．mapíy \({ }^{\text {y }}\) ，mláyc ic．＂

 \(u^{y}{ }^{y} a^{\prime}{ }^{\mathrm{y}}\) ．

41．muláyca．
42．＂yú•ṣ，kyaráwxu•c．＂
43．＂lá，mapíl \({ }^{y}\) kúz \({ }^{y}\) curá•x．＂
 \(u^{\mathrm{y}} \mathrm{a}^{\mathrm{a}} \mathrm{z}^{\mathrm{y}}\) ．
 pa•cápc uyu aca.

47. má•主 \({ }^{\text {y }}\) pa•cáp ṣa•yá•wm aṣú•x má•m xác puyákm má•m, usíc uxáp \(n^{Y}\) awí \(k i k^{W} a^{\prime} \cdot y\) pa•Pac.

... cí•v lú•p \(n^{y}\) mksa?ú•rca.
49. wa•yá•m pa•wí•c.

\section*{Free Translation}
1. Once upon a time, they say Coyote was going along.
2. Coyote was going along all by himself.
3. He was going along by himself now ... he didn't care where he was going.
4. He went on and on now ... He was going down the middle of the road when he saw Mountain Lion coming up the road.
5. He saw him.
6. "Golly, this is a bad man coming.
7. He's going to try to fool me and kill me." he said.
8. He (Mountain Lion) meets him.
9. "Hello, younger brother, where are you going?"
10. Coyote is afraid ... "Oh, I'm on my way to look for a job." he says.
11. "Hmm, fine ... I have a little job for you. Come along." he says to him.
12. He takes Coyote.
13. They go along for awhile.
14. Not far away they come to a big cottonwood tree which has good shade.
15. Mountain Lion fixes a place on the ground there and lies down.
16. "I'm going to lie down here and sleep now ... and in the afternoon I'll get up.
17. I'Il pay you whatever you want." he says to him.
18. He says to Coyote.
19. "O.K."
20. "(If) you chase away the flies while I sleep."
2.. "O.K."
22. While he lay there and slept, he (Coyote) sat there and chased away flies as he told him to do.
23. It was real late in the afternoon when he got up.
24. He got up.
25. "O.K.
26. Ycu want something now.
27. I kill anything ... anything I want to eat.
28. Whatever you feel you want, I'll kill it and you can eat it." he says to him.
29. "Come along." he says and then they go off.
30. They come to where there is some water.
31. There is a real big cottonwood tree standing there.
32. Now Mountain Lion climbs it and lies up in the top.
33. Coyote tries to climb.
34. It's no use ... he can't climb it.
35. "My goodness, please hurry up and climb."
36. "I can't climb it.
37. There's one at my house which I can climb.
38. Now, I can't do it."
39. "My goodness, please hurry up and climb."
40. He climbs, hanging on where he can, jumps, and falls to the ground.
41. He can't do it.
42. "My goodness, please hurry up."
43. "Oh, I'm climbing now."
44. He does climb, hanging on as well as he can, (but) falls to the ground.
45. Later, Mountain Lion then goes down, picks him up, and throws him to the ground.
46. To the ground ... I meant to say he throws him up into the top.
47. He throws hin to the top and they sit there until later now some animals come down to the water to drink.
48. Hmm ... horses ... mules ... donkeys ... pigs ... goats, all in a bunch.
49. He (Coyote) looks at them as they come.
I. once upon a coyote he was he was he did I say a time, going along doing it it it too.

2. a coyote
he was
he was
going along
all alone

\begin{tabular}{lll} 
he was & he was & he did \\
going along doing it & it.
\end{tabular}


where he con- he wes in- he was he was he did tinued to go different going along doing it

4. he was
he went
now ...
going along along there

the road he covered he was going he did
along there - as it,

\begin{tabular}{ll} 
thing mountain they say & \begin{tabular}{ll} 
lion & him
\end{tabular}\(\quad\) that one
\end{tabular}


Scpl-dec
he came
there
on the road he came
he was
coming - as,

he saw him he was doing it he did it I say it too.

5. he looked he did it.
at him

6. "Golly, this man
a man
a very
he is
bad one
coming.

\begin{tabular}{lll} 
7. he is he fools he intends he is he does \\
around - while me & to kill me coming it."
\end{tabular}

he said he did it.


\begin{tabular}{ccl} 
"Hello younger to where you intend do \\
brother & to go & you?"
\end{tabular}

10. the coyote
he is he said...
afraid

"Oh, thing work I look for I go I do he he did along it." says it.


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11. "Hmm, good... thing work little I intend to get for you

12. the coyote he takes him.

13. they went along they went along.

14. Not far off
cottonwood
it was
it stood
really big





Scmp-dec
the shade
it was they arrived.
pleasant

15. there
he was around

the mountain lion.

16. "Here I lie down

I sleep
I lie here now ... until

the sun, day
it is past the
middle - and then


I get up.

17. Thing you want you say - which I intend to pay you

it happens it does." He said to him.

18. The coyote he said to him.

19. "Good"
20. "Flies
you chase awey



21 "Good."
22. There he sat now

flies he chased which he he said
slept
he lay there -while

\begin{tabular}{ll} 
he was here & he was here \\
sitting & sitting.
\end{tabular}

23. The sun, day it was very he got up he was he did
far gone doing it it.

24. He gets up. 25. "Good.


26. now thing you want.

27. I
thing ... . thing
that which I kill them is all

27. (concluded) I bite him I am lying here. (them)

\begin{tabular}{ll} 
I kill it - you intend \\
then & to eat it happens."
\end{tabular}


He said to him he did it.

29. "Come." : he said - then they went along. when

30. Water it lay there they arrived. (which)

31. A cottonwood it was very it stood it stood it it did tree big there was it.

32. Now thing mountain lion he climbed in the top he lay as usual

33. The coyote ne climbs he is around.

34. Not at all.... he does he does it is he did not climb it - which it.

35. "My goodness, be quick climb please."


37. My
in my house it stands
it is there
- which


I climb I am around I do.


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39. "My goodness, be quick
climb please."

40. He climbs in some place he hangs on he jumps

in the ground he falls in the ground he

41. He is unable.

42. "My goodness, be quick please."

43. "Oh, now I climb I am going."

44. He climbs he does it in some place he hangs on he is there

\begin{tabular}{lll} 
in the he falls in the & he \\
sround & & ground \\
& & falls.
\end{tabular}

46. In the ground he does
it ...

in the above he throws him I intend to say.

45. Later - then, the mountain now he goes he picks lion down hin up

\begin{tabular}{lll} 
in the he throws he does he did \\
ground him & it & it.
\end{tabular}

47. In the above he throws him they are there while


48. Hmm ... horse ... mule he said him ...

donkey ... pig ... goat something that which is mixed up.

49. He was around - while he looked at him.



GLOSSARY FOR THE SAMPLE TEXT
\begin{tabular}{ll} 
& Abbreviations used \\
a. & auxiliary verb \\
def. pron. & definite pronoun \\
i. i. & impersonal intransitive verb \\
imp. & imperative \\
ind. pron. & indefinite pronoun \\
interj. & interjection \\
int. suff. & intentive suffix \\
n. & noun \\
neg. & negative \\
obj. & object \\
pers. pron. personal pronoun \\
per. v. p. & periphrastic verb phrase \\
p. i. & personal intransitive verb \\
pron. & pronoun \\
p. t. & personal transitive verb \\
s. & stative verb \\
subj. & subject \\
v. n. &
\end{tabular}
\begin{tabular}{|c|c|}
\hline á & a. he says, said, does, did; irregular third person of 1 \\
\hline ám & interj. a little ways off, not far away \\
\hline apá & n. man \\
\hline apápin \({ }^{\text {y }}\) & the man; -pin \({ }^{\text {y }}\) d. suff. (531.2, 801.3) \\
\hline apápic & the men; -pic d. suff. (531.1, 301.2) \\
\hline ara \(\cdot r\) & v.n. (722) work; rar p.t. I work \\
\hline aş̧́c 1 & i.i. later; per. V.p. (822.1) \\
\hline aşfex & later; used as interj. (830) with int. \\
\hline & -x (483) \\
\hline
\end{tabular}
áwika
interj. hello
\begin{tabular}{|c|c|}
\hline cea \({ }^{\text {c }}\) ¢ \(\cdot \mathrm{m}\) & p.i. he is indifferent; cawi'm I'm indifferent \\
\hline cu•pít & p.t. he covers, closes; cupit I cover, close \\
\hline crupáy & p.i. he prepares, makes reảy; cr?úy I prepare \\
\hline cxupiz \({ }^{\text {y }}\) & p.i. he hangs on; expiz \({ }^{\text {y }}\) I hang on \\
\hline caqg a & p.i. he jumps; cáqṣ i I jump; per. v.p. \\
\hline cuPá•x & p.i. I am on my way; personal intransitive; a. I go; cu- (454), -x (484) \\
\hline \(\mathrm{cI} \cdot \mathrm{v}\) & n. goat \\
\hline
\end{tabular}
\begin{tabular}{ll} 
i & a. I say, do \\
in \(^{\mathrm{y}}\) pa & I say too, repeat; \(-\mathrm{n}^{\mathrm{y}}(482),-\mathrm{pa}\) (485.2) \\
ix & I intend to say \(-\mathrm{x}(484)\)
\end{tabular}
\begin{tabular}{|c|c|}
\hline kayu & a. I am, do in some manner; yú I am; it is; ka- (461) \\
\hline \(\underline{k i z} \underline{k}^{W} \cdot \underline{a} \cdot \mathrm{y}\) & n. cow, cattle, edible animal; beef \\
\hline kú•c & n. pig \\
\hline kúz \({ }^{\text {y }}\) & p.i. I climb \\
\hline \[
\begin{aligned}
& \text { kkúz }{ }^{y} x u \cdot c \\
& k u^{\prime} y^{y_{x}}
\end{aligned}
\] & \begin{tabular}{l}
Climb, please; k- imp. (412), -xu•c (616.3) \\
I intend to climb; -x (484)
\end{tabular} \\
\hline \(k^{\prime} \underline{z}^{\text {y }}\) xu \(\cdot \mathrm{c}\) & Form of kkú \({ }^{y_{x u}}\) - \(c\) in rapid speech \\
\hline kuwárxan \({ }^{\text {y }}\) & be far gone; \(-x^{y}{ }^{y}\) (616.2); known to occur only in the expression \(n^{\mathrm{y}}\) ác kuwár in the afternoon \\
\hline kyaráw & s. Be quick; hurry up; imp. of yaréw I'm quick; k- (412) \\
\hline kyaráwxu•c & Be quick, please; -xu•c (616.3) \\
\hline kyí• & a. Come; imp. of yi •I come; \(k\) - (412) \\
\hline & \(k^{W}\) \\
\hline \(\mathrm{k}^{\mathrm{W}}\) \%as & v.n. the one who said; that which was said;
\[
i \text { a. say; } k^{\mathrm{W}}-(721)
\] \\
\hline & 1 \\
\hline 1á & interj, oh \\
\hline \[
\begin{aligned}
& \text { láx } \\
& \quad 1 a \cdot x=\operatorname{man}^{y}
\end{aligned}
\] & i.i. be not; may also be used as an interj. not at all; \(-\operatorname{xan}^{\mathrm{y}}\) (616.2) \\
\hline
\end{tabular}

\(I^{\mathrm{y}}\) cás \(\quad\) s. be little
m
\begin{tabular}{|c|c|}
\hline m & interj. hmm \\
\hline maké- & stem of indef. pron. (542) \\
\hline makám & to where; -m (530.5) \\
\hline mekapin \({ }^{\text {y }}\) & which, whatever; -pin \({ }^{\text {y }}\) (531.2) \\
\hline makáy & at which, at where; - y (530.4) \\
\hline  & n. in the above; from the \(n\). stem má•the above, top; \(-\mathrm{I}^{\mathrm{y}}\) (530.3) \\
\hline má•m & interj. now; and then \\
\hline mán & p.i. I get up \\
\hline mapíl \({ }^{\text {y }}\) & interj, now, at this moment \\
\hline mapú- & stem of 2nd pers. pron. (541) \\
\hline mapuic & subj. you \\
\hline márls & interj. once upon a time \\
\hline mét & n. ground, land, floor \\
\hline máti̇ \({ }^{\text {Y }}\) & in the ground; \(-\mathrm{I}^{\mathrm{y}}\) (530.3) \\
\hline ma'x & a. you intend to go; á. I go m- (410), -x (484) \\
\hline mi•ธwa - \({ }^{\text {m }}\) & p.i. you want; i•Swáł I want; m- (410) \\
\hline mi \(\cdot x\) ¢ \(\cdot \mathrm{n}\) & s. be good, pleasant \\
\hline
\end{tabular}
\begin{tabular}{|c|c|}
\hline mi•?İ•p & ```
p.t. you hear, feel (like), listen to;
    i•Píp I hear, feel (like), listen to;
    m- (410)
``` \\
\hline mláy muláy & p.i. I am unaible, don't know how he is unable \\
\hline mu•1 & n. mule \\
\hline mšuyá & p.t. he is afraid, fears; mšyá• I am afraid, fear \\
\hline myu & a. you are, do; yú \(I\) am, do; it is, does m- (410) \\
\hline \(m^{21}\) & a. you say, do; í I say, do; it says, does; m- (410) \\
\hline
\end{tabular}
\begin{tabular}{|c|c|}
\hline \(\mathrm{n}^{\text {y }}\) á & n. sun, day \\
\hline \(\mathrm{n}^{\text {y }}\) ¢ \({ }^{\text {a }}\) & stem of list pers. pron. (541) \\
\hline \(\mathrm{n}^{\mathrm{y}} \mathrm{S}^{\text {e }}\) c & subj. I \\
\hline \(\mathrm{n}^{\mathrm{y}}{ }^{\text {a }}\), & obj. me, my \\
\hline \(\mathrm{n}^{\text {ل }} \mathrm{a} \cdot \mathrm{nákx}\) & p.t. he intends to kill me; nák I kill; \\
\hline
\end{tabular}
\[
\mathrm{n}^{\mathrm{y}} \mathrm{a} \cdot-(413) ;-\mathrm{x}(484)
\]
\(n^{y_{\text {awi }}} \quad\) n. thing
\(n^{\mathrm{y}} \mathrm{a} \cdot \mathrm{xa}_{\mathrm{f}} \cdot \mathrm{I}^{\mathrm{y}} \quad\) p.t. he fools, tricks me; \(\mathrm{n}^{\mathrm{y}} \mathrm{a} \cdot\) (4i3)
\(n^{y}\) áy p.i. I look for, search
\(n^{\mathrm{y}}\) ckun \({ }^{\mathrm{y}}\) áyx p.t. I intend to pay you; \(\mathrm{n}^{\mathrm{y}}\) - (413); -x (484)
\(n^{y_{i}}\)-wáy \(\quad\) a. where he goes; he goes there; from wá he goes ( \(G_{0} \cdot \mathrm{I}\) go); \(n^{y_{i}} \cdot-(440) ;-y\) (483)
\(n^{y}\) kumin \(\quad\) p.i. they arrived; suppletive (421.7) of pwám he arrived (pá•m I arrived); \(n^{\mathrm{y}}\) - (421.3) ; -m (430.4)
\(n^{\mathrm{y}}\) mea. \(\quad \mathrm{n}\). mountain lion
\(n^{\mathrm{y}}\) mksapli.r V.n. (722) things all mixed together; the verb stem is not known except in this form
\(n^{\mathrm{y}}\) poá• a. I stand, it stands there; \(\mathrm{n}^{\mathrm{y}}\) - (440)
\(n^{\mathrm{y}}\) ṣá- stem of 3 rd pers. pron. (512)
\(\mathrm{n}^{\mathrm{y}}\) ṣác subj. he, it
\(\mathrm{n}^{\mathrm{y}}\) wáł \(^{\mathrm{y}} \quad \mathrm{n}\). in ny house; wé house; \(\mathrm{n}^{\mathrm{y}}-\) (511); \(-\mathrm{zi}^{\mathrm{y}}\) (530.3)
\(\mathrm{n}^{\mathrm{y}} \mathrm{xu} \cdot 1 \quad \mathrm{n}\), my younger brother; \(\mathrm{n}^{\mathrm{y}}\) - (711)
\(n^{y} y a ́ \cdot x \quad\) p.t. I intend to get for you; yá•I get; \(\mathrm{n}^{\mathrm{y}}\) - (413); -x (484)
u
\begin{tabular}{|c|c|}
\hline ukúz \({ }^{\text {y }}\) & p.i. he climbs; kúa \({ }^{\text {y }}\) I climb; u- (412) \\
\hline ukúa \({ }_{\text {y }}^{\text {i }}\) - - & he ciimbs again; usually climbs; -i•(483) \\
\hline umán & p.i. he gets up; mán I get up; u- (412) \\
\hline \(u^{\text {u }}{ }^{\text {y }}\) áz \({ }^{\text {y }}\) & p.i. he falls; \(\mathrm{n}^{\mathrm{y}} \mathrm{al}^{\mathrm{y}}\) I fall; it falls; \(u\) - (412) \\
\hline upát & p.i. he lies down; pát I lie down; u- (412) \\
\hline usain \({ }^{\mathbf{y}}\) & p.i. he descends, goes down; sán \({ }^{y}\) I descend; u- (412) \\
\hline usi \({ }^{\text {a }}\) & p.i. he drinks; síl I drink; u- (412) \\
\hline \begin{tabular}{l}
ušít \\
uダítuan \({ }^{\text {y }}\)
\end{tabular} & s. he is one, alone; sít be alone, one; u- (412) he is really alone; \(-\operatorname{xan}^{\mathrm{y}}\) (616.2) \\
\hline uwá & a. he sits, is sitting; wá I sit, it sits; \(u\) - (412) \\
\hline
\end{tabular}
uxáp
uyák
uyi.
uyú
uyus
pa•cap
panák
paná•k
pa•sá•血
paşa•
pmsá• \(x\)
p.i. he enters; xáp I enter; u- (412)
a. he is lying, reclining; yák I lie, it lies; \(u\) - (412)
a. he comes; yi. I come; u- (412)
a. he is, does; yư I am, do; it is, does; u- (412)
he is, does; -s. (485.3)

\section*{p}
p.t. he throws, places him; cap I throw, place; pa.- (413)
p.t. I kill him; nák I kill; pa- (413)

I kill them; plural (421.6)
v.n. they who are all; sá•m be all

This is analyzed as a verbal noun formed by a- (722). sá•m is definitely a stative verb in certain usages; it also resembles an impersonal transitive verb, as it may take the pronominal object prefixes in second and third person and the reflexive prefix. p-is probably third person object (411).
p.t. I bite, eat him; sá• I eat (hard things); pa- (413)
you intend to eat him; pm- (413); -x (484)
pát
pa
pa
pá
payáa
pa•yá•
payák
payáks
pa•yí•
pa•Pá
pa・フモy
pa?a•m
pmn \({ }^{\text {y }}\) wíl
\(\mathrm{pn}^{\mathrm{y}}\) uwi̊l
\(\mathrm{pn}^{\mathrm{y}} \mathrm{wá}\)
p.i. I iie down
a. he is here (sitting); wá I sit; pa- (451)
p.t. he sees, looks at him; wíl see, look at; pa•- (413)
pron. (451.) here, at this place; -y (530.4)
a. (or i.i.) it happens here, now; yá• it happens; pa- (451)
p.t. he takes him, picks him up; ya• I pick up; pa- (413)
a. I lie, it lies here; pa- (451)

I lie here; -
a. he comes (here); yí• I come; pa- (451)
a. and p.t. he says to him; he said (i.e., named) him; \(i\) I say; pa-- (413)
he says, names him; -y (483); ordinarily used only as the second constituent of a directive noun phrase (813) to indicate that the speaker is not naming something on his own; it is approximately equivalent to 'the one they call'
a. I go along; á 1 go; pa- (451); -m (430.4)
p.t. you chase him (them) away; \(n^{\text {º }}\) wíl I chase away; pm- (4I3)
he chases him (them) away; \(u\) - (412)
a. they went along; suppletive plural of pá he goes along (pa?a. I go along); p- (451)
puyá
puyák
ptáy
px"ay
p?á.
a. I stand, it stands
\(q^{w}\)
\(q^{\text {wáaqs }} \quad\) n. horse
gé
sa•wá
sáy
sa• yak
sa• yá•w
şa•yí•
ssayú
şkruwár
s.swa• yá• it happens; pu- (452)
a. I lie, it lies there; pu- (452)
s. be big 'O.K.'
s. sit; sa- (453) it lies; ṣa- (453) afternoon; cf. kuwár.
a. (or i.i.) it happens there, then; ya.
s. be good; commonly used as interj.: 'Fine',
a. he gocs along there: á I go; s- (453)
a. he is located there (sitting); wá I
pron. (541.1) there, at that place; -y (530.4)
a. he is located there (lying); yák I lie;
a. they are located there; suppletive plural (421.7) of three verbs: yák be lying, wá be sitting, and p?á• be standing; the plural stem is yáw; sa- (453)
a. he is coming there; yí• I come; sa- (453)
a. I am, it is there; yú I am, it is; ṣa- (453)
i.i. be past the middle; occurs only in the expression \(n^{y}\) ga skruwár in the early
a. he is around there; waye. I am around; s- (453
šmá pa.i. I sleep
\begin{tabular}{cl} 
šmáx & I intend to sleep; -x (484) \\
šumá & he sleeps; u- (412) \\
šxlmú & n. fly, flies
\end{tabular}
\(\mathrm{tk}_{\mathrm{W}}^{\mathrm{W}} \mathrm{i}\)-sar \(\quad\) n. shade
v
ví•r
n. donkey, burro
\(w\)
wan \({ }^{\mathrm{y}}\) ám \(\quad \mathrm{n}\), along the road; wan \({ }^{\mathrm{Y}}\) á road, trail, path; -m (530.5)
wa•yá• a. he is around; wayá I am around
\(\mathbf{x}\)
xá
n. water
xacáqxan \(^{\mathrm{y}} \quad\) v.n. (722) a very bad one; xcáq s. be bad, ugly; \(-\operatorname{xan}^{\mathrm{y}}\) (616.2)
xút
intery. Golly
\(x \nsucceq p a ́\)
n. coyote
xจá
n. cottonwood tree
yú a. I am, do; it is, does
yus yưoṣ I am, do; it is, does; -s (485.3) interj. My goodness; nevertheless

\section*{Syntactic suffixes}

The syntactic suffixes: \(-c,-p j c,-k,-m\), and -a are present in the sample text. Reference is made to 801 for description of their usage and function.```

