CHIRICAHUA APACHE

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THE Chiricahua Apache, in aboriginal times, ranged through southwestern New Mexico, southeastern Arizona, and the northern parts of Sonora and Chihuahua. The present day Chiricahua live on the Mescalero Reservation in New Mexico.

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1. INTRODUCTION

§1:1. The morphemes making up Chiricahua Apache words are of three basic types: prefixes (including proclitics), stems, and enclitics. There are three main form classes in Chiricahua; these may be distinguished on the basis of their essential structure and by the degree of inflection to which they are subject. In the list which follows, the morphemes not set in parentheses are necessary to all forms in the class, whereas those in parentheses are found with only some members of the class.

 I. Nouns:
  A. Simple nouns
   1. (Prefixes)-Stem-(Enclitics)
   2. Prefix-Stem-(Enclitics)
  B. Nouns derived from verbs
   (Prefixes)-Verb form-(Enclitics)
  C. Compound nouns
   A combination of two or more nouns of any of the above types to which may
   be added prefixes and enclitics.
 II. Verbs:
  Prefixes-Stem-(Enclitics)
 III. Particles:
  A. (Prefixes)-Stem-(Enclitics)
  B. Unanalyzable polysyllabic forms

Nouns only vary in structure when possessive prefixes are added but, in the

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[1] Harry Hoijer, *Chiricahua and Mescalero Apache Texts (with Ethnological Notes by Morris Edward Opler)*, (Chicago 1938).

majority of cases, this process is unaccompanied by variation in the essential struc-ture. Particles are never inflected and only occasionally may prefixes or enclitics be added. Verbs, however, are complexly inflected, both by variation in their es-sential form and by the addition and subtraction of prefixes.

§1:2. The prefixes employed with the noun and particle, and a majority of those found with the verb may be distinguished, phonologically and morphologi-cally, from certain prefixes peculiar to the verb alone. Prefixes of the former type we shall call derivational prefixes, and those of the latter group, paradigmatic prefixes.

Derivational prefixes found with the noun are of two kinds: proclitics (which may also be added to verbs and particles), and possessive pronouns (which are identical in form with the object pronouns prefixed to verbs). Particles may take only proclitics.

The prefix complex of the verb, however, is decidedly more complex. Follow-ing is a list of the verb prefixes in the order in which they occur in the verb form:

1. Proclitics
2. Adverbial prefixes (rare in this position)
3. Object pronouns (when they denote the indirect object of the verb)
4. Adverbial prefixes (most adverbial prefixes appear in this position)
5. The prefix for the iterative mode
6. The prefix for the distributive
7. Object pronouns (when they denote the direct object of the verb)
8. Deictic prefixes
9. Adverbial prefixes (rare in this position)
10. Tense-modal prefixes
11. Subject pronouns
12. Classifiers

Prefixes of positions one to nine, inclusive, are classed as derivational prefixes, and those of positions ten to twelve, inclusive, as paradigmatic prefixes. The mini-mum verb form must include a classifier (though this may be zero), a subject pro-noun (or a deictic prefix), a tense-modal prefix which may, however, be zero, and a stem.

2. PHONOLOGY

§2:1. The Chiricahua Apache utterance, phonetically considered, is a suc-cession of evenly stressed syllables separated from one another by "valleys" or minima of prominence. Between some syllables the point of minimal prominence is not far below the adjacent maxima of prominence; thus, for example, in the nor-mal pronunciation of such words as tó·è· "at the water hole" the voice merely falls slightly in intensity as it passes from the final vowel of the first syllable to the

initial vowel of the last. A similarly slight variation of vocal intensity differentiates syllables terminating in a vowel or syllabic n from following syllables beginning with a syllabic n: bà-ń-ʔà· "you give a round object to him," ǹ-ǹš-ʔà· "I put a round object down."

Much more distinct minima of prominence may be noted between syllables terminating in a vowel, syllabic n, or consonant and one beginning with a consonant: dì-bé "sheep," nà-·dą́-ʔ "corn," ǹ-dà· "he sits down," and sàh-dè "handle." Where the vowel of an open first syllable is short (as the dì- of dì-bé "sheep") the point of syllabic division appears to lie in, not before, the following consonant (thus [dìb-bé]). In all other cases the point of minimal prominence is just before the following consonant. It is evident from this rule that all intervocalic consonants following a short-voweled open syllable are mechanically lengthened.

Finally, it should be emphasized that the minima of prominence separating the syllables of a single word do not differ appreciably in magnitude from those which separate syllables belonging to different words in the same utterance. Pauses of greater or less duration may, to be sure, separate the words or phrases of an utterance but similar pauses may quite often fall within the word. Consequently, in the absence of any other special characteristics of a phonetic nature setting off the word or the phrase, it is a reasonable conclusion that the syllable is the smallest phonetic group in Chiricahua Apache.

The syllable in Chiricahua Apache has the following phonetic characteristics:

1) It most often begins with a consonant or syllabic n. Exceptions to this rule are certain rarely occurring syllables beginning with a consonantal cluster (e.g., šdì-bá "he starts off to war") and other, even less frequently occurring, syllables which begin with a vowel (e.g., kǫ̀-bą̀-è· "at the fireside").

2) The syllabic may be a vowel (short or long), a two-vowel cluster, or a syllabic n.

3) The syllable may terminate in a vowel or syllabic n, in a consonant, or, rarely, in a consonantal cluster.

4. Each syllable possesses a toneme.

Chiricahua Apache words are minimum free forms composed of one or more syllables. It is evident, then, that words exhibit the following phonetic characteristics:

1) All words begin with a consonant, a syllabic n, or, rarely, a bi-consonantal cluster.

2) Medial consonantal clusters never exceed three consonants and are most often composed of only two. Such clusters always occur at a syllable division.

3) Vowel clusters are usually within syllables and may occur medially and finally in the word. Some vowel clusters occur at a syllable division.

4) The word may terminate in a vowel, a syllabic n, or a consonant. Consonantal clusters never terminate the word.

5) The pitch accent of a word is built up of the tonemes of its constituent syllables.

§2:2. The consonants.

	Labial	Alveolar	Blade Alveolar	Lateral	Palatal	Faucal
STOPS						
Unaspirated	b	d	—	—	g	—
Aspirated	—	t	—	—	k	—
Glottalized	—	ƭ	—	—	ḳ	ʔ
NASALS						
Continuant	m	n	—	—	—	—
Exploded	ⁿb	ⁿd	—	—	—	—
SPIRANTS						
Unvoiced	—	s	š	ł	x	h
Voiced	—	z	ž	l	γ	—
SEMI-VOWEL	—	—	—	—	y	—
AFFRICATES						
Unaspirated	—	ʒ	ǯ	λ	—	—
Aspirated	—	c	č	ƛ	—	—
Glottalized	—	c̓	č̓	ƛ̓	—	—

§2:3. The distribution of the consonants is summarized in the following. Examples will be given later.

1) All consonants may occur as syllable initials.

2) Only ʔ, s, z, š, ž, ł, l, and h may terminate a syllable. These also occur as word finals.

3) All consonants except ƛ (this exception is probably fortuitous) occur as word initials. Except for s and š, which as word initials may be followed by d or a vowel, a consonantal word initial is always followed by a vowel.

4) Medially in the word, all consonants may occur between vowels and between another consonant and a vowel. However, only the syllable finals listed in (2) above are found between a vowel and a consonant, and only s, š, and ł between two consonants.

§2:4. b, d, and g are voiceless unaspirated lenes. g before a and o is back palatal and before e and i is front palatal. Sometimes g is followed by a voiced palatal glide: [gγ] before a and o, [gγ] before e and i. Examples: bá·ʔ "thirst," bé·š "knife," dì·bò·l "it is round," hà·dè·s·bì̓ "it is full"; dą̀· "cup," ʔìł-dǫ́ "also"; gàh "rabbit," dì·gè· "he swoops down," dì·š·gìs "I am lazy," gó "snake."

t and k are unvoiced fortes and are always followed by a heavy spirantal aspiration similar to the consonant x. Before a and o the aspiration is back palatal and before e and i it is front palatal. Examples: tá·ì [txá·ì] "three," sì·té·ž [sì·txé·ž] "two beings lie," hà·s·tì̓ [hà·s·txì̓] "old man," tó [txóh] "water"; kà· [kxà·] "disease," šì·kè· [šì·kxè·] "my shoes," hí·dìš·kì [hí·dìš·kxìh] "I ask him," dì·kòs [dì·kxòs] "cough."

ƭ and ḳ are unvoiced and glottalized. The glottal closure is simultaneous with

(in rapid speech) or follows (in slow speech) the oral closure. Examples: tą́·yá "backward," ná·t'é·žè "eyebrow," ʔáš·t'í "I am so," ná·t'òh "tobacco"; k̓à· "arrow," cé·k̓èh "firepit," bì·cà·s·k̓ì·dè "his lap," k̓òs "cloud."

The glottal stop (ʔ) is strongly articulated and may be heard without difficulty in any position. Examples: ʔá "fog," bì·ʔé·dè "his coat," nà·n̓ł·ʔį̀ "he has it hidden," béʔ·dìš·ʔà "I sing about him," žó·ʔòł "Douglas spruce," bá·ʔ "thirst."

§2:5. m and n are essentially the same as English m and n. The exploded nasals are best described [mb] and [nd], respectively, though, in a majority of occurrences, the stopped element is only lightly pronounced. ⁿb is rare, found only in the word ⁿbài ʔ (or ⁿbà ʔyè) "coyote" and its derivatives. m is somewhat more frequent but occurs only before the vowel a and, except in borrowed words, never as a word initial: mà·dé·ʔyà "bottle" (<Span. botella), šì·má "my mother," yì·ł·màs "he rolls it up."

ⁿd is found before the vowels a, e, and i but only in stem syllables: ⁿdá·sá "further on," ʔì·ⁿdè· "it is new," ʔá·dìš·ⁿdí "I speak thus." n is very common but, except before o, is limited to affixed syllables: nà·k̓ì "two," bì·čì·né "his father's mother," nà·nì·h·dá "we fall off," nà·nó·k̓à· "I have fainted," šìł·nà·ʔà·š "my spouse," nòn "grave, cache."

Intervocalically after a short vowel and between syllabic n and a vowel, ⁿb and ⁿd are ambisyllabic: šì·ⁿbà ʔ·yè [šìm·bà ʔ·yè] "my coyote," n̓·ⁿbà ʔ·yè [m̓·bà ʔ·yè] "your coyote," ʔì·ⁿdè· [ʔìn·dè·] "it is new," n̓·ⁿdè·z [n̓·dè·z] "he is tall."

§2:6. s and z are pronounced as in English sip and zipper, respectively. Examples: sà· "language," sdìł·té·ł "(sand, water) begins to stream," nô·sé·ł "they were moving in a circle," yì·bà ʔ·sì·dá "he waits for him," sǫ̀·s "star," yì·yè·s·x̣į́ "he has killed him," k̓à·ʔs·dà·dà·ʔyá "he got away from them," dì·gìs "he is lazy"; zàs "snow," bì·zégé "his sweetheart," ʔí·nš·zìs "I am the main one," n̓·λ̓ìs·ná·ʔà "it is hard, they say," ʔì·zòh "he draws a line," ná·nè·s·dìz "he lies curled up."

š and ž are similar to the initials of English ship and French gendarme, respectively. Examples: šá "sun," šdì·bá "he starts off to war," yì·šé "he cuts it," xà ʔ·šé·šì "in some way," šòʔ "dew, frost," dìš·bá "I start off to war," béʔ·šdìł·ʔà "he sings about him," bé·š "knife, metal"; žì·ʔgò "rich" (<Span. rico), ʔì·žá "he goes off hunting," ʔì·žé "saliva" ʔìš·žìš "I dance," ʔì·žó·ʔá·ž·dą́ "when they two had gone away," sì·bé·ž "it has boiled," hò·žòł "it is being dragged."

ł is a voiceless alveolar lateral spirant: łà ʔ "one," ʔì·łé·hì·ká "we come together," łį́ "horse," łó "sore, scab," dìš·łé "I start to carry a rope·like object," žìł·bá "he is gray," λ̓é·ʔł·ⁿdí "midnight," bìł "sleep."

l is a voiced alveolar lateral similar to English "clear" l. In final position, it becomes syllabic. Examples: là·cíń "wrist," bì·lè·žè "its dirt, dust," dì·lì ʔ "it burns," ló·ʔs·cò "wood rat," gò·s·lį̀ "it has become" sì·ⁿdìl·ná·ʔa [sì·ⁿdìl̩·ná·ʔàh] "several objects lie, it is said," dè·s·bàl [dè·s·bàl̩] "he has begun to swing."

x and γ are back palatal before a and o, front palatal before e and i. x before o is sometimes labialized. γ before o is always strongly labialized and very often re-

sembles closely a [w] with slight velar attack. Examples: xàʔ "winter," hà-xàʔ "you two shake it," xé·ł [x̣é·ł] "pack," dìł-xìł [dìł-x̣ìł] "black," xòš (sometimes [xʷòš]) "cactus"; bì-γà· "its wool," γéʔ-yè [γé·ʔ-yè] "Giant," bì-γò· [bì-γwò·] "his teeth."

As in English, the Chiricahua faucal spirant h varies in pronunciation depending upon the quality of the following vowel (when h is a syllable initial) or the preceding vowel (whe h is a syllable final). In general, however, h is more clearly articulated in Chiricahua than in English. Before or after the vowels a and o, it is always more spirantal than the English h; sometimes, indeed, it approaches the pronunciation of [x] in this position. Before or after e and i, however, h is less spirantal and not greatly different from the h's of English hem and him. Examples: hà-dè-s-bìʔ "it is full," dì-bé-hé "sheep," hí-tò· "it is striped red," dàʔ-hò·-ké·z "a long rigid object has moved up," ìi-nàh-łà· "you two are fat," gàh "rabbit."

cv syllables, when final in an utterance, are always pronounced [cvh]. This inorganic h disappears when the syllable is in included position whereas a true h remains. Thus, ìi-bá [ìi-báh] "it is gray" and ìi-bá-gò "it being gray" but gàh "rabbit" and gàh-gò "there being a rabbit."

§2:7. y is pronounced somewhat as in English young, except that it always has a slightly "rubbed" or spirantal quality. Examples: yà· "louse," ʔì-yé-z̧ìł-ⁿdì "he knocks it off," yà·-yí-ʔà· "he gives a round object to him," ʔìʔ-nó·-yò· "he has driven them away," ʔì-γèʔ-yá "into it."

§2:8. z, z̧, and λ are combinations of Chiricahua d and s, š, and ł, respectively. They are, therefore, unvoiced, unaspirated, lenis affricates. Examples: zà· "here,' zé "choke-cherries," z̧ìł "mountain," tâi-dì-zó "he threshes, winnows it," ʔìs-zán "woman"; z̧à· "pitch, gum," z̧è·-z̧í-kę̀ "little girl," yì-z̧ò·-ⁿdè· "he helps him," ǹł-z̧į́ "he sits down"; λè·š "white clay," λì̧·-dè "hawk (Sp.)," λǫ́·ʔ-yè "prairie dog," hà-gò-dì-λà· "a noise is heard," nà·ł-λò·š "he trots about."

c, č, and ƛ are phonetically Chiricahua t released into the spirants s, š, and ł, respectively. In contrast to z, z̧, and λ, they are aspirated and fortis. Examples: càʔ "awl," bì-cè· "his tail," cí-dí "glowing coals," dá-ʔàł-cò "every (one)"; čà· "beaver," čé·ł-čá-yé "beetle (Sp.)," čí "red clay," bì-čó "his mother's brother"; ʔì-ʔì-ƛà· "he shovels a mud-like mass away," dì-ƛè· "he gets wet," cá-dì-ƛí·š "he falls down dead," nà·ł-ƛò "he waves his arms about."

c̣, č̣, and ƛ̣ are [c], [č], and [ƛ] pronounced with a simultaneous (in rapid speech) or a following (in slow speech) glottal stop. Examples: c̣à· "shallow basket," ʔì-c̣ì-dè "sinew," nàił-c̣ǫ̀ "he pulls it"; č̣àh "hat," č̣é-ń-ʔá "a rigid object extends out," ʔì-gò-č̣ì· "he digs a hole," gò-dìł-č̣òš "he makes a noise"; ƛ̣é·ʔ "night," hà-ǹ-ƛ̣àh "he is left-handed," bé-z̧ìł-ƛ̣é "he runs into him," ƛ̣ì·š "snake," yè·-ʔì-ƛ̣ó "he ties it up."

§2:9. An s-consonant (i.e., s, z, z̧, c, or c̣) preceding an š-consonant (i.e., š, ž, z̧, č, or č̣) in a prefinal or stem syllable of the same word assimilates to the corresponding š-consonant. Similarly, an š-consonant preceding an s-consonant in a

prefinal or stem syllable of the same word assimilates to the corresponding s-con-
sonant.

In both cases the assimilation is optional. The frequency with which assimi-
lated forms occur, however, is determined by two factors: the distance of the two
consonants from one another and the rapidity of speech. Taking the first factor as
primary, we may set up the following conditions under which assimilation may
take place.

1) If the two consonants are members of the same syllable, the first will always as-
similate to the second except in very slow and precise speech. Thus, ʔìł-čéš-dò̧ "I straighten
it" and nà·-ʒì·s-bį́ "he has swum" are always pronounced [ʔìł-čéš-dò̧·] and [nà·-ʒì·s-bį́h],
respectively.

A reverse assimilation sometimes occurs in the case of the š-phoneme. A final š in
certain prefinal syllables beginning with s, z, or ʒ appears to assimilate to s. There are
only a few examples of this alternation: hà-sìš-tì? [hà-sìs-tì?] "I am old," sìš-xé [sìs-xéh] "I
kill him," ná-zìš-xé [ná-zìs-xéh] "I kill him again," gò-tà·-ʒìš-ⁿdì [gò-tà·-ʒìs-ⁿdì·] "I knock
them down."

2) If the two consonants are members of different but contiguous syllables, the as-
similation will take place in rapid and normal speech but not in slow speech. Thus,
ʔìł-čé-ʒìł-dò· "he straightens it" and čé-má·s "he rolls out" are usually pronounced
[ʔìł-čé-ʒìł-dò̧·] and [čé-má·s], respectively, but, in deliberate speech, may be heard
[ʔìł-čé-ʒìł-dò̧·] and [čé-má·s].

3) If the two consonants are separated by one or more syllables, the assimilation will
more often take place when the separation is slight and speech is rapid, and will be less
likely to take place as the distance between the two consonants increases and speech be-
comes more deliberate. Thus, in a form like sí-ṅ-čá "you have buried it," the pronunciation
[ší-ṅ-čáh] will be most frequent in normal speech since only a syllabic n separates the con-
sonants s and č. But in any of the following examples, we may hear two pronunciations in
normal speech (the most frequently occurring variant is given first): šà·-dà-ʔì·s-ʔą́
[sà·-dà-ʔì·s-ʔą́h] or [šà·-dà-ʔì·s-ʔą́h] "there is a bump on me," šà·-ʔ-dà·-sí-ṅ-yá [sà·-ʔ-dà·-sí-ṅ-yáh]
or [šà·-ʔ-dà·-sí-ṅ-yáh] "you went away from me," šà·-ʔ-łé-ṅ·-zì [šà·-ʔ-łé-ṅ·-zìh] or [sà·-ʔ-łé-ṅ·-zìh]
"you are happy over me."

4) s- and š-consonants never appear as members of the same stem syllable.

5) An s- or š-consonant in a stem syllable never assimilates to a following š- or s-con-
sonant, respectively, in a postfinal syllable. Thus, ʒìł-šį́ "from the mountain" is never pro-
nounced *[ʒìł-šį́].

6) In compound words, an s- or š-consonant in a stem syllable will assimilate to š- or
s-consonant, respectively, in a following stem syllable. The conditions under which such
assimilation takes place are essentially the same as those stated in (2) and (3) above. Ex-
amples: cì-ʒì-né [čì-ʒì-nèh] "a variety of bush," cè·-ʒìn [čè·-ʒìn] "eagle" (Sp.), cé-ʔí-cį́ [čé-ʔí-
čį́h] or [cé-ʔí-čį́h] "Guadalupe Mountain," cè-ł-kì-ʒè [cè-ł-kì-ʒèh] or [čè-ł-kì-ʒèh] "golden
eagle," ʒì-łá-tà·-ʒè [ʒì-łá-txà·-ʒèh], rarely [ʒì-łá-txà·-ʒèh] "turkey."

§2:10. Three types of consonant combination occur in Chiricahua: 1) bi-
consonantal clusters found initially and finally in the syllable, 2) bi-consonantal

combinations (separated by a hiatus) at a point of syllable division, and 3) tri-consonantal combinations (type (1) cluster plus hiatus plus consonant).

Only sd and šd are found as syllable initials. Syllables containing such clusters always begin a word. Examples: sdè·s·tè·l "it has begun to stream," šdì·ʔì· "he begins to carry them."

Consonant clusters ending the syllable are ʔs, ʔš, and ʔł. Syllables containing such clusters never occur in final position and are always followed by a syllable beginning with a consonant. Examples: ló·ʔs·cò "wood rat," bì·čè·ʔš·ké "his chil-dren," dá·ʔł·k̄èh "both of them." These, too, are the only circumstances under which triconsonantal combinations occur in Chiricahua.

The most frequently occurring consonant combinations are those of type (2). These are found whenever a syllable ending in a consonant immediately precedes one beginning with a consonant. Only ʔ, s, z, š, ž, ł, l, and h may begin such com-binations though any consonant may complete one.

§2:11. Syllabic n occurs initially, medially, and finally in the word. In the initial position it is always followed by a consonant or another syllabic n, never by a vowel: ǹ·cà· "it is big," ǹ·ń·ʔà· "you put a round object down."

In medial position syllabic n may occur:

1) Between another syllabic n and a vowel: ʔìs·zą́·ń·ń·è· "to that particular woman."
2) Between another syllabic n and a consonant: ǹ·ń·ʔà· "you put the round object down."
3) Between a vowel and another syllabic n: ʔìs·zą́·ń·ń "that particular woman."
4) Between two vowels: sì·ʔ¼́·ǹ·è· "to the place where a round object had lain."
5) Between a vowel and a consonant: bà·ń·ʔà· "you give a round object to him."
6) Between a consonant and another syllabic n: gò·γ¼̀·ʔ·ń·ń "her actual husband."
7) Between a consonant and a vowel: bè· ·žà·ʔà· š·ǹ·í "that by means of which they had been traveling."
8) Between two consonants: ná·ʔ·ǹ·ⁿdìł "he makes a brush corral."

The pronunciation of syllabic n varies with its position in the word and with the speed of utterance. In normal and rapid speech, all syllabic n's are pronounced [hṇ] in the initial position and [n] in the medial and final positions.

In slow and precise speech, however, several variant pronunciations appear: [ni] and [hn] initially, [ni], [dṇ], and [ṇ] medially, and [ṇ], [dṇ], and [hṇ] in final posi-tion. These variations result from the disparate origins of syllabic n. Those which are optional contractions of an original ni are pronounced [ni] in slow speech, re-gardless of position; those which are from di+ni are pronounced [hṇ] initially and [dṇ] in medial and final positions; and those which go back to an original syl-labic n are pronounced [ṇ] medially and [hṇ] finally (they do not occur initially).

In final position syllabic n may be preceded by a vowel, a consonant, or by another syllabic n: čí·ń "ghost," nàh·čì·hò·gá·ł·ń "he who keeps coming toward us," ʔìs·zą́·ń·ń "that particular woman."

ṇ plus ṇ, as we have seen does not contract to a long syllabic n but is pro-

nounced as two separate syllables. However, as a result of certain archaic contrac-
tions, a long syllabic n does occur as a separate phoneme. It is found in the follow-
ing positions in the word:

   1) Initially, where it is always followed by a consonant: ǹ·gìs "you are lazy."
   2) Between another syllabic n and a consonant: ǹ-ǹ-t̓ì· "we two put them down."
   3) Between a vowel and a consonant: ná-ǹ-ʔà· "you pick up a round object."
   4) Between two consonants: náš-ǹ-ʔà· "he picks up a round object."

In normal and rapid speech, ṇ· is always pronounced [hṇ·] in the initial posi-
tion and [ṇ·] in the medial position. In slow speech, ṇ· resulting from a reduced
and lengthened ni is pronounced [ṇ·] but one derived from a contracted and
lengthened di-ni- is heard [dṇ·].

When ṇ immediately precedes m, ⁿb, or b, it assimilates to syllabic m:
ǹ-má [hm-máh] "your mother," ǹⁿbà ʔyè [hm̀·-bà ʔ-yèh] "your coyote," nà-ǹ-má·s
[nà-m̀-má·s] "you roll off."

§2:12. The vowel phonemes may be listed as follows.

Position of Articulation	Un-nasalized		Nasalized	
	Short	Long	Short	Long
Low-central unrounded	a	a·	ą	ą·
Mid-front unrounded	e	e·	ę	ę·
High-front unrounded	i	i·	į	į·
Mid-back rounded	o	o·	ǫ	ǫ·

a and a· vary from the low central position to the low front position. The
variation is apparently haphazard. Examples: gàh "rabbit," kà· "disease, illness."

e and e· are usually half open vowels, very similar to the vowels of English
met and bed, respectively (Midwestern American dialect). Before i in vowel clus-
ters, however, their quality approaches that of the half close vowel of standard
German Weh. Examples: ké "shoes, moccasins," tè·ł "tule," bì-ẑéiʔ "his heart."

i is usually half close, similar to the vowel of English bit. Before voiced conso-
nants and in the final position of the word, however, it approaches the close
pronunciation of i·. Examples: bì-tà· "his father," bì-má "his mother," bí "he,
him," bì·-šeʔ "a variety of bird," dí· "this one."

o varies from the half open position, as of the vowel of standard German voll,
to the half close position of the vowel of English book. Similarly, o· varies from a
half close o, similar to that of German Sohn, to the high u of English soothe. These
variations are entirely random; the same informant will accept either [txɔ́h[or
[txúh] for tó "water" and either [txò·] or [txù·] for tò· "hundred."

§2:13. Short vowels occur as syllable initials only in a few medial and final

syllables. Consequently, they are only medial and final in the word, never initial. In the medial position, short vowels may be found:

1) Between consonants: šàš "bear," bì·té·lè "the front of his body," gìš "cane, staff," bì·tò? "his water."

2) Between a consonant and syllabic n: ?ìs·z̧á·ń "woman," yé·ǹ·t̨í "he bewitches him," yì·ǹ·ƛá·s "he helps him," gò·ǹ·s̨á "I am wise."

3) Between a consonant and vowel: tà·nâi·gìs "he washes it," k̨èi·dì·cé "he slips it on," ń·dói "puma." i is not found in this position.

4) Between a vowel and consonant: i and o are most frequent in this position; e does not occur here at all: ?êaɬ·ⁿdí "you two are jealous," ?ì·gòi·?á·ń "holes, dens," nào·ƛìž "we two have fallen off."

In the final position, a short vowel may be preceded by:

1) A consonant: nà··dà "mescal," dì·bé "sheep," bí "he," gó "snake."

2) A syllabic n: only i may occupy this position: z̧ò··γé·ǹ·í "he who used to be called by name."

3) Another short vowel: only i and o are found in this position: ?ái "he, that one," ?ào "yes."

§2:14. Like the short vowels, long vowels never begin the word but are found only medially and finally. Medially, they occupy the following positions:

1) Between consonants: bá·? "thirst," bé·š "knife," t̨ì·s "cottonwood tree," gó·?·yè "all living creatures except man."

2) Between consonant and syllabic n: bà··ǹ·?à· "you take a round object off it," k̨è··ń·dì· "you dislike him," gò·ⁿdì·ń "shaman," dá·lè·ǹ··tò··ǹ "one hundred times."

3) Between consonant and vowel: ɬ·k̨à·í "these who are fat," bì·k̨è··í "those which are his shoes," ⁿdì·í "all the earth," hí·tò··í "that which is striped red."

In the final position, long vowels are preceded by:

1) A consonant: bì·tà· "his father," bì·dè· "his horn," dí· "this one," ?ì·tò· "juice, soup."

2) A syllabic n. Only e· is found in this position: sì·?ą̨·ǹ·è· "that round object which had been there."

3) Another vowel. Again only e· occurs in this position: tó·è· "at the water."

Long vowels in high-toned syllables appear to be appreciably shorter (i.e., half long) in contrast with long vowels in low-toned syllables. Thus, for example, the vowels of dí· "this one" and bé·š "knife," though distinctly longer than those of bí "he" and dì·bé "sheep," are about half the duration of the long vowels of gò·ⁿdì· "shaman" and t̨è·š "charcoal."

§2:15. Nasalized vowels are found:

1) Between consonants: bì·k̨ą̀? "male," nà··dą̨·? "corn," bì·z̧è··k̨ę̀? "his daughter," k̨ì·sì·z̧à· "town," ?í·šį̀·š "salt," bé··?·k̨ǫs "arrow-shaft straightener," dì·k̨ǫ̀·hé "novice on the war-path."

2) Between consonant and syllabic n: ʔìł-čą́-ń-gìž "you cut it in two," yò·kà̰·ń "he who begs of him," žè·kę́-ń "the girl," dì-γḭ̀-ń "he who is holy," bì-čḭ̀·ń-X̌á·s "you help him," ǹ-tò̰-ń "he who is worthless," zé·ʔ-nà̰·-gò-cò̰·ń "he whose mouth stretches."

3) Between a consonant and vowel: ʔìł-čą̀o-gé-š "would that you cut it in two," bì-bà̰·í "that which is its edge," žè·-ží-kę́-í "the girl," bì-ǹ-cà·í "elk," bì·-í "the deer," X̌ói? "prairie dog," kò̰·í "the fire."

In the final position, nasalized vowels occur only after a consonant: ʔá·dą̰́ "at that time," bì·bà̰· "its edge, border," žè·-ží·kę̀ "girl," hę̀· "yes," ʔé·dḭ̀ "it is gone," bḭ̀· "deer," ʔìł-dó̰ "also," kò̰· "fire."

§2:16. Vowel clusters are of two types: 1) clusters which function as syllabics and 2) those in which the vowels are separated by a point of syllable division.

The most frequently occurring clusters of the first kind are: ea, ai, ei, oi, o̰i, ao, a̰o, and eo. These are pronounced much like the English diphthongs except that the second vowels of Chiricahua clusters have a marked syllabic quality. Examples: ʔêał-ⁿdí "you two are jealous," sái "sand," bì-žéi? "his heart," ń-dói "puma," X̌ói? "prairie dog," ʔào "yes," ʔìł-čą̀o-gé-š "would that you cut it in two," yéoł-žòł "he has rubbed it on him."

Vowel combinations of the second type occur when a syllable beginning with vowel immediately follows one ending in a vowel. Only two syllables begin with vowels, so all combinations of this type end in either -í or -è·. Any vowel but ę· may begin the cluster. Examples: lì-bá-í "those who are gray," nà·-dà·-bà·-í "those who raid," sì-ʔą̰́-í "that round object which lies," bì-bà̰·-í "that which is its edge," dì-bé-í "the sheep," bì-dè·-í "that which is his horn," žè·-ží-kę́-í "the girl," yáł-tì-í "those who are talking," bì-cḭ̀·-í "that which is his head," dì-γì-í "that which is holy," ʔì-ǹ-ʔḭ̀·-í "that which is stolen," tó-í "the water," ʔì-tò·-í "that which is soup," gó-žó̰-í "the place which is beautiful," kò̰·-í "the fire," dì-bá-è· "where he started off to war," ʔà·-è· "at that place," sì-ʔą̰́-è· "where the round object lay," bì-bà̰·-è· "at its edge," dì-bé-è· "to the sheep," bì-dè·-è· "on his horns," tá·-ʔá·-ⁿdí-è· "just as he spoke thus," bì-cḭ̀·-è· "on his head," sì-tʃè· "where he lay," ná-dì·tḭ̀·-è· "where he picked up a long slender object," tó·-è· "at the water," šàs-bì-tò·-è· "at Bear Springs," gó-žó̰-è· "at the beautiful place," kò̰·-è· "at the fire."

In deliberate speech, an inorganic h is often inserted between the vowels of clusters of this type. In rapid speech, however, and particularly when both vowels are short, the cluster is often pronounced like one of type 1, or, if the vowels are identical, as a single long vowel.

§2:17. Each syllable of a Chiricahua utterance possesses, in addition to its segmental phonemes, certain distinctive features of pitch accent which constitute its prosodic or suprasegmental phonemes. There are four such prosodic phonemes (or tonemes): the low tone, indicated by a grave accent (e.g., gàh "rabbit"); the high tone, indicated by an acute accent (e.g., tó "water"); the high-low or falling

tone, indicated by an inverted circumflex (e.g., ˓ᶯdâ· "eye"); and the low-high or rising tone, indicated by a circumflex (e.g., hŏ·ʔá "a rigid object juts out").

It should be emphasized that it is not possible to define the tonemes in terms of specific musical or physical descriptions. As for all other phonemes, the pronunciation of tonemes varies from speaker to speaker and in accordance with emotional and other factors affecting each speaker. Not only are the level (i.e., high and low) tones not always pronounced alike but there is never precisely the same interval between the two registers. Two factors, however, are constant: 1) whenever an utterance contains syllables differing in tone, an interval may always be heard between them, and 2) this interval is always such that syllables characterized as high-toned are pronounced on a higher pitch than those characterized as low-toned.

High and low tones occur in syllables of all kinds: ń-lį̀ "it flows," bí "he, him," bá·ʔ "thirst," bì-ẓéiʔ "his heart," ǹ-bèʔ "your breast," ǹ·-bá "we two start off to war," nà·-bà· "he goes about on the war-path," nài-ʔà· "he goes about carrying a round object."

Syllables with inflected tones, however, always have a long vowel, a vowel cluster, or a long syllabic n: bì-ᶯdâ· "his eyes," ʔâiɬ-ćà "a noise is heard," ǹ-n̂·-ʔì̀· "you have put them down," hŏ·-tì "it extends upward," bĕo-ᶯdá·ɬ "you travel by means of it."

3. MORPHOPHONEMICS

§3:1. The Chiricahua word has three major syllable positions: prefinal, final, and postfinal. The final position is occupied in all words by one and only one syllable. Prefinal and postfinal positions, however, may be filled by zero, one, or more syllables. Proclitics, prefixes, and stems may occupy the prefinal position. The final position can only be taken by a stem syllable. Postfinals may include enclitic syllables and, rarely, certain stems.

The phonetic elements which make up a Chiricahua utterance are of two types: primary syllables and augments. Primary syllables may occur unmodified (in any of the three positions) or they may be reduced, augmented, contracted, or modified internally. Augmentation may apply to syllables in all three positions, contraction and reduction to prefinals and finals, and internal modification only to stem syllables in the final position. Augments are never syllabic but always appear as part of another syllable.

The material of the preceding two paragraphs may be summarized and illustrated as follows:

1. Primary syllables
   a) Prefinal. The syllable bì- (<bi- "his") in bì-cì·-gò "[that] being his head."
   b) Final. The stem -cì· "head" in bì-cì·-gò "[that] being his head."
   c) Postfinal. The enclitic -gò, subordinating, in bì-cì·-gò "[that] being his head."
2. Reduced syllables
   a) Prefinal. The prefix ǹ- (<nì- "you") in ǹ-cì· "your head."

b) Final. The syllable -ʔé- (<the stem -ʔéd- "clothing") in bì-ʔé-dè "his clothing."

3. Augmented syllables
   a) Prefinal. The syllable dìš- (<the prefix dì- "to begin to" plus the augment š-, first person), in dìš-bá "I start off to war."
   b) Final. The syllable -ʈàˑɫ (<the augment d-, classifier, plus the stem -ʔàˑɫ "to chew") in hì-ʈàˑɫ "it is being chewed."
   c) Postfinal. The syllable -dè (<d, final consonant of the preceding stem -ʔéd-, plus the vocalic possessive enclitic -è) in bì-ʔé-dè "his clothing."

4. Contracted syllables
   a) Prefinal. The syllable dé- (<di- "to begin to" plus si-, perfective, and í-, first person) in dé-bàˑ "I have begun to go to war."
   b) Final. The syllable dí- "this one" (<the stem dí- "this" and the enclitic -í, referring to nonhuman objects).

5. Internally modified syllables
      Stem syllables which have several phonetic alternatives. Examples: ʔéˑʔ "clothing" (absolute form), -ʔéd- "clothing" (possessed form); -ʔàˑš "two move" (imperfective mode), -ʔáˑž "two move" (perfective mode).

§3:2. Primary syllables always have the form cv or cvc plus a toneme. They are usually made up of a single morpheme having a similar phonetic form except that it may in some cases lack a toneme. In other words, morphemes in general are of two sorts with respect to tone: neutral-toned (i.e., lacking a toneme) and inherent-toned (possessing a toneme) (see §3:9). When a neutral-toned morpheme functions as a primary syllable, it takes on a low tone. Examples: bi- "his" becomes the syllable bì- in bì-cì- "his head" while nàh- "our" is unchanged in nàh-cì- "our heads."

Some primary syllables may be composed of part of a disyllabic morpheme. Thus, the morpheme -náˑʔà "it is said" has two syllables: -náˑʔà.

§3:3. Reduced syllables are primary syllables minus one segmental phoneme. The principal example of this process in prefinals is found in syllables having the form nì- or ní-. Such syllables in normal and rapid speech always reduce to ǹ- and ń-, respectively. Examples: ǹ-kèˑ (<nì-kèˑ) "your foot," ǹ-ń-ʔàˑ (<nì-ní-ʔàˑ) "you put a round object down."

Augmented and contracted prefinals containing nì- or ní- are also subject to similar reduction. See §§3:4, 3:5.

Primary prefinals ending in h are reduced when they immediately precede prefinals beginning with a spirant. Examples: dàh- in dà-sì-žàˑ "they lie in a bunch" (cf. dàh-gò-s-žàˑ "they [fourth person] lie in a bunch"), and in dà-sí-yá "I have become of a certain age" (cf. dàh-žì-yá "he [fourth person] has become of a certain age").

Stem (i.e., final) syllables are reduced when followed by certain vocalic enclitics. Thus, the stem -ʔéd- in bì-ʔé-dè "his clothing" loses its final consonant which then augments the enclitic syllable.

When stem syllables having the form cvc are followed by the enclitics -í

and ˑń, they may be pronounced either cvˑcí, cvˑcń, or cvcˑí, cvcˑń. In the former pronunciation, which is perhaps more frequent in rapid speech, the stem syllable is of course reduced. Examples: ˑgáˑ ł· in hòˑgáˑˑłń or hòˑgáˑłˑń "he who is coming," ˑbìʔˑ in hàiˑdìłˑbìʔˑʔí or hàiˑdìłˑbìʔˑí "those who fill it."

§3:4. Augmented syllables are primary syllables which have combined with one or more nonsyllabic augments. They may be formed in all three syllable positions.

The augments most commonly occurring in prefinal position are the prefixes: àˑ "to, from"; áˑ "for benefit of"; èˑ "by means of"; éˑ "on, against, at"; šˑ, first person subject pronoun (in all modes but the perfective); ˑ (i.e., high tone), conjunct second person subject pronoun (in all modes but the perfective); ˑhˑ (i.e., low tone and length plus h) first person dual subject pronoun; ahˑ, second person dual subject pronoun (in all modes but the perfective); àhˑ or àˑhˑ, second person dual pronoun (perfective mode); íˑ, first person pronoun (perfective mode); ł, classifier.

The postpositions àˑˑ, áˑ, èˑˑ, and éˑ unite only with the object pronoun prefixes šiˑ, first person; niˑ, second person; biˑ or yiˑ, third person; goˑ, fourth person; ʔiˑ, indefinite; nàˑhiˑ, first or second person dual; ʔádˑ, reflexive; and ʔiłˑ, reciprocal. The following rules of combination may be observed:

1) When the pronoun ends in i, the vowel of the postposition replaces i. The tone of the augmented syllable is that of the postposition. Examples: šàˑˑyìˑʔàˑ (šàˑˑ>šiˑ+àˑ) "he gives a round object to me," náˑʔáˑgóˑlàˑ (náˑ>niˑ+áˑ) "he made it for you," bèˑẓàˑgáˑł (bèˑˑ>biˑ+èˑˑ) "he travels along by means of it," yèˑˑʔíˑɣą̂ (yèˑˑ>yiˑ+èˑˑ) "he kills by means of it," ʔàˑˑyíˑʔàˑ (ʔàˑˑ>ʔiˑ+àˑˑ) "he gives a round object to someone," nàˑhéˑdìłˑɣòš (nàˑhéˑ>nàˑhiˑ+éˑ) "he shouts at us."

2) When the pronoun is goˑ, the g becomes k and the vowel o is replaced by the vowel of the postposition. The syllable takes the tone of the postposition. Examples: kàˑˑyíˑʔàˑ (kàˑˑ>goˑ+àˑ) "he gives a round object to him," kèˑẓìˑλí (kèˑˑ>goˑ+èˑˑ) "he acts like him," káˑʔáˑgóˑlàˑ (káˑ>goˑ+áˑ) "he made it for him," kéˑdìłˑɣòš (kéˑ>goˑ+éˑ) "he shouts at him."

3) When the pronoun ends in a consonant, the postposition forms a new syllable with the final consonant of the prefix. The pronoun syllable is thereby reduced. Examples: ʔáˑdèˑˑnáˑgóˑλá (ʔáˑdèˑˑ>ʔádˑ+èˑˑ) "restore it by means of your own (power)," ʔìˑłàˑˑhàiˑλé (ʔìˑłàˑˑ>ʔiłˑ+àˑˑ) "they pull a rope-like object from one another."

The subject pronouns and classifiers only augment primary syllables of the type cv. The rules of combination are as follows:

4) šˑ and łˑ are simply added as final consonants: dìšˑ (<dìˑ+šˑ) in dìšˑčá "I begin to hop," dìłˑ (<dìˑ+łˑ) in dìłˑX̌é "he begins to trot." Sometimes both šˑ and łˑ may augment a syllable; in such cases, they combine to šˑ: dìšˑ (<dìˑšˑłˑ) in dìšˑX̌é "I begin to trot."

5) ahˑ plus a primary syllable yields càhˑ or cáhˑ, depending on the tone of the primary syllable: dàhˑ (<diˑ+ahˑ) in dàhˑẓáˑš "you two begin to carry a mass," náhˑ (<náˑ+ahˑ) in náhˑẓìˑ "you two are being cured." When both ˑah and łˑ augment a syllable, the result

is càł· or cáł·: dàł· (<dì·+ah·+ł·) in dàł·λ́é "you two begin to trot," náł· (<ná·+ah·+ł·) in náł·λ̀à· "you two wet it."

6) àh·, à·h· only augment the morphemes si·, ho·, and ni·, all of which designate the perfective mode (see §4:7). The resultant forms are sàh·, hà·h·, and nàh·, respectively. If ł· also aguments these syllables we have sàł·, hà·ł·, and nàł·. Examples: ná·sàh·λ́é "you two have become wet," ná·sàł·λ́é "you two have wet it," hà·h·bé·ž "you two boil," hà·ł·bé·ž "you two boil it," ǹ·nàh·ẓà· "you two have put a mass down," šà·²nàł·tí̧ "you two have given him to me."

7) í· augments the morphemes si·, ho·, and ni·. The resultant forms are sí·, hó·², and ní·, respectively. It should be noted that the augmented syllable ní· never reduces to ń· (cf. §3:3). When ł· also augments these syllables, the forms síł·, hó·ł·, and níł· result. Examples: sí·tí̧ "I lie," síł·tí̧ "I have him lying," hó·²bé ž "I boil," hó·ł·bé·ž "I boil it," ǹ·ní·ẓà· "I have put a mass down," nà·²níł·tí̧ "I have given him to you."

8) ²·h· may augment any neutral or high-toned primary syllable of the type cv. The result is cv̀·h· when the primary syllable is neutral-toned and cv́·hì·h· when the syllable is high-toned. Reduced syllables of the type ǹ· and ń· become ǹ·h· and n̂·h·, respectively, when augmented by ²·h·. When ł· is also an augment, the resultant forms are cv̀·ł·, cv́·hìł·, ǹ·ł·, and n̂·ł·. Examples: ²ì·h· (<²ì·+²·h·) in ²ì·²ì·h·λ̀à· "we two shovel a mud-like mass away," ²ì·ł· (<²ì·+²·h·+ł·) in ²ì·ł·gòš "we two sleep," náhì·h· (<ná·+²·h·) in ná·hì·h·ẓì· "we two are being cured," ná·hìł· (<ná·+²·h·+ł·) in ná·hìł·ẓì· "we two cure him," ǹ·h· (<nì·+²·h·) in ǹ·n̂·h·kè·s "we two faint," ǹ·ł· (<nì·+²·h·+ł·) in ǹ·łⁿdá "we two become wrinkled," n̂·ł· (<ní·+²·h·+ł) in n̂·ł·t̂àh "we two butcher it."

Certain primary syllables derived from a morpheme di·, when combined with ²·h· and ²·h·+ł·, become ǹ·h· and ǹ·ł·, respectively: ǹ·h·kè· "we begin to run" (cf. dì·kè· "they begin to run"), ǹ·ł·λ́é "we two begin to trot" (cf. dì·λ́é "he begins to trot").

§3:5. Stem syllables are augmented by nonsyllabic consonants or final consonants of prefinals which appear directly before them. There are five such consonants: d (classifier or final consonant of the augment ²·h·, first person dual subject, which appears before certain stems as ²·d·), h (final consonant of the second person subject pronouns ah·, àh·, and à·h·), s (final consonant of the contracted prefinal cv·s·, see §3:8), š (the first person pronoun subject), and ł (a classifier). Not all stem syllables are augmented by these but where they are it is evident that the preceding prefinal is correspondingly reduced.

1) The classifier d· drops out (or survives as h) before all stem syllable initials but ², h, γ, y, z, ž, and l. d· unites with these to produce t̂, d, g, d or ẓ, ẓ, ž, and λ, respectively. Examples: hì·t̂à·ł (<hì·d·²à·ł) "it is being chewed," ná·dá (<ná·d·há) "he returns," ²ì·gá̧ (<²ì·d·γá̧) "we two kill them," hì·dá̧ (<hì·d·yá̧) "it is being eaten," gò·ǹ·ẓá̧ (<go·ni·²·d·yá̧) "we two are wise," nà·²ì·ẓì· (<nà·²ì·d·zì·) "we two work," ǹ·ží·š (<di·²·d·ží·š) "we two begin to pull it," ²á·hì·λá (<²á·²·d·lá) "we two make it so."

2) h before the stem syllable initials γ, y, z, ž and l unites with them to produce x, s, s, š, and ł, respectively. Before any other stem syllable initial, h remains as final consonant of the preceding prefinal (see §3:4, 5, 6). Examples: hà·xà² (<hi·ah·γà²) "you two shake it," gà·sà· (<go·ah·γà·) "you two are becoming wise," bà·²·yá·nà·sì (<bi·à·²yá·ni·

ah·zì) "you two are ashamed of it," hà·šìž (<hi·ah·žìž) "you two break it off," ʔá·là·
(<ʔá·ah·là·) "you two have made it so."

3) There are morphophonemically two final s consonants occurring before the stem syllable. One is a simple s, the other an s+ł. In a few instances, the single s (historically from an old z) assimilates completely to a following stem syllable initial y, z, and ž; in most cases, it remains. s+ł, however, always combines with the stem syllable initials y, z, and ž to form s, s, and š, respectively. Examples: ná·dè··zą́ (<ná·dè·s·zą́) "a movement of peoples has begun," nà·²yá (<nà·s·yá) "he has moved about," dè··žó (<dè·s·žó) "a dragging has begun" (but note dè·s·yòl "he has blown," nà·s·zì "it has flown through the air," and dè·s·žì·ž "he has begun to crouch"), yì··sòl (<yì·s·ł·zòl) "he has blown it," ǹ·ná·hè··są́ (<nì·ná·hè·s·ł·zą́) "they have camped," yì·dè··šó (<yì·dè·s·ł·žó) "he has begun to drag it."

4) Similarly, there are morphophonemically two š augments; simple š and š derived from š+ł (see §3:4, 4). Simple š combines with the stem sylalble initial h to form š. Both š augments unite with the stem syllable initials y, z, and ž to form s, s, and š, respectively. Examples: dì·šá (<dì·š·há) "I start off," gò·są̀· (<gò·š·yą̀·) "I am becoming wise," bì·ǹ·sì (<bì·ń·š·zì) "I am sleepy," hì·šìž (<hì·š·žìž) "I break it," hì·sòl (<hì·š·ł·zòl) "I blow it," ʔì·ʔì·sí (<ʔì·ʔì·š·ł·zí) "I shoot it through the air," hì·šé (<hì·š·ł·žé) "I cut it."

In a few cases, however, an š appears which does not combine with the stem syllable initials y, z, and ž: hìš·yà·ł "I yawn," ʔí·ǹš·zìs "I am the main one," ʔì·dìš·ží·š "I begin to dance." It seems likely that this š represents a combination of š plus a ł derived from an older l.

5) ł, as we have already seen, may be from an original ł or from h+ł (see §3:4, 5, and 6). Both, however, combine with the stem syllable initials y, z, ž, and l to form s, s, š, and ł, respectively. Examples: yì·sòl (<yì·ł·yòl) "he blows it," hà·sòl (<hì·ah·ł·yòl) "you two blow him," ʔì·ʔì·sí (<ʔì·ʔì·ł·zí) "he shoots it through the air," ʔì·ʔà·sí (<ʔì·ʔì·ah·ł·zí) "you two shoot it through the air," yì·šé (<yì·ł·žé) "he cuts it," hà·šé (<hì·ah·ł·žé) "you two cut it," yì·dì·łìʔ (<yì·dì·ł·lìʔ) "he burns it," dà·łìʔ (<dì·ah·lìʔ) "you two burn it."

§3:6. Augmented postfinals occur only when a vocalic enclitic follows a stem syllable ending in a consonant: bì·ʔé·dè (<bì·ʔéd·è) "his clothing." As indicated previously, the enclitics ·í and ·ń may, in rapid speech, be similarly augmented. See §3:3.

§3:7. The great majority of contracted syllables (combinations of two or more primary syllables) are found among the prefinals. Stem syllables occasionally contract with a following postfinal, but such contractions are nearly always op·tional whereas the prefinal contractions are, in most cases, mandatory.

Insofar as stem syllables are concerned, contraction is largely between stems of the type cv followed by a postfinal syllable composed of a vowel or syllabic n. Such contraction, however, takes place only in comparatively rapid speech. Thus, for example, the forms lì·bá·í "the gray ones" (·bá, stem syllable; ·í, postfinal) and lì·bá·ń "he who is gray" (·ń, postfinal) may be heard, when spoken rapidly, lì·bái and lì·bán, respectively. Less often in rapid speech the postfinal ·gò may con·tract with an immediately preceding stem syllable. Thus, lì·bá·gò "it being gray" may be heard lì·bâo.

§3:8. Contractions of prefinals are so numerous and complex that we can do little here but describe some of the more frequently occurring examples:

1) Syllables of the type ʔì· frequently become ʔ and combine with an immediately preceding syllable type cv. Such contractions are optional but usually occur in normal and rapid speech. Examples: nà·ʔ-sí-zì· (or nà·-ʔì-sí-zì·) "I have worked," nà·ʔ-ñš-ʔ̀ĭ· (or nà·-ʔì-ñš-ʔ̀ĭ·) "I lend them to you," hàʔ-ʒ̣ìɬ-ɣè· (or hà-ʔì-ʒ̣ìɬ-ɣè·) "he walks off."

2) Syllables of the type ʒì· or ʒ̣ì· frequently reduce to s and š, respectively. The reduced forms may then combine with a following syllable of the type di· or, more often, with a preceding syllable of the type cv. The contraction is optional through it usually takes place in normal and rapid speech. Examples: sdì-té·ł (or ʒì-dìł-té·ł)"it is about to stream," nà·s-dàł-tìł (or nà·-ʒì-dàł-tìł) "it will slide off," šdì-bá·ł (or ʒ̣ì-dìł-bá·ł) "he swings," náš-dì·-ʒá (or ná-ʒ̣ì-dì·-ʒá) "he stands up."

3) The syllable ʒ̣ì·, between a syllable type cv and ʒì·, reduces to i and contracts with the preceding syllable. Examples: ʔì-bêi-ʒìł-ⁿdí (<ʔì-bé-ʒ̣ì-ʒìł-ⁿdì) "he knocks it off," gò-tài-ʒìł-ⁿdì (<gò-tà·-ʒ̣ì-ʒ̣ì-ⁿdì) "he knocks them down one after another."

4) Syllables of the type yì· or yí·, in normal or rapid speech and when preceded by a syllable type cv, reduce to i and become part of the preceding syllable. Examples: tà·-nâi-gìs (or tà·-ná-yì-gìs) "he washes him," nài-dì-λó (or nà·-yì-dì-λó) "he tries it on," nái-ń-ʔą́ (or ná-yí-ń-ʔą́) "he has brought a round object back."

5) Certain prefinals having the form nì· (<morphemes ni· or nì·), occurring after a syllable type cv, disappear entirely leaving a high tone on the vowel of the preceding syllable. Examples: ʔí-lĭ (<ʔì-nì-lĭ) "it is valuable," yà·-ʔí-ʔ̀ĭ· (<yà·-ʔì-nì-ʔ̀ĭ·) "he gives them to him," ʔí-ń-t̀ą́ (<ʔí-nì-nì-t̀ą́) "you raise crops."

When the syllable preceding such a ni· has the form di·, the resultant contracted syllable is ń·, not dí·: ń-bá (<dì-nì-bá) "you start off to war," ʔá-ń-ⁿdí (<ʔá-dì-nì-ⁿdí) "you speak so." See §3:4, (8).

di· syllables may also unite with ni· syllables that remain to form a long syllabic n. Thus: ná-ǹ·-ʔà· (<ná-dì-nì-ʔà·) "you pick up a round object." It will be remembered that syllabic n syllables having this origin display certain peculiarities of pronunciation. See §2:11.

6) The element characteristic of the disjunct imperfective (hi·) combines with prefinals type cv to form a syllable cv with a long vowel. Examples: hà·-čà (<hà-hì-čà) "he burst out crying," dì·-ɣòš (<dì-hì-ɣòš) "there is shouting."

7) A number of prefixes having the form hò·, hó·, or hó· · combine with a preceding cv syllable. When the vowel of the preceding syllable is a, the vowel of the contracted syllable is either ao or o·; where the vowel is other than a, the contracted syllable has o (if combined with hò· or hó·) or o· (if combined with hó·). Examples: nào-yà? or nò·-yà? (<nà·-hò-yà?) "would that he go about," nà·-ʒ̣ó-yà? (<nà·-ʒ̣ì-hó-yà?) "would that he (fourth person) go about," nǎo-λìž or nŏ·-λìž (<nà·-hó·-λìž) "he has fallen off," dó-lì? (<dì-hó-lì?) "would that it burn," dó·-lì? (<dì-hó·-lì?) "it has burned."

8) The syllable sì· (derived from the morpheme si·, perfective mode) unites in different ways with a preceding cv syllable. In a majority of cases, sì· reduces to s· and becomes the final consonant of the syllable preceding. The vowel of the syllable preceding, if originally short, is lengthened. Examples: hà·s-ʔá (<hà-sì-ʔá) "a rigid object extends upward,

k̇à·s-k̇èh (<k̇à·-sì-k̇èh) "he has been wounded," gò·s-lį́ (<gò·sì-lį́) "he has been born,"
yì·s-k̇àš (<yì·sì-k̇àš) "he has sharpened it."

Certain prefixes like those formed from the prefixes di-, hi-, and ni- contract with si-
to form de-, he-, and ne-, respectively. Examples: dé-n̆-ẓà· (<dì-sí-n̆-ẓà·) "you have started
to carry a mass," né-n̆-yá (<nì-sí-n̆-yá) "you have grown," nì-hé-n̆-č̣à· (<nì-hì-sí-n̆-č̣à·)
"you have defecated."

9) The prefinals di-, hi-, and ni- also combine with a prefinal derived from a morpheme
ni- (meaning uncertain) to de-, he-, and ne-: dà-dè-·t́é (<dà-dì-ni-t́é) "it (a string) is
stretched across," nì-nè·-t̀à· (<nì-nì-ni-t̀à·) "he turns his head about," nì-hè·-dá (<nì-hì-
ni-dá) "he makes a wager."

10) Contracted prefinals may be augmented as well. In general, the rules for the aug-
mentation of contracted prefinals are the same as those for primary syllables; see §3:4. The
following examples will serve to illustrate the process: dé-ẓà· (<dì-sì-í-ẓà·) "I have started
to carry a mass," dè-h-ẓà· (<dì-sì-'-h-ẓà·) "we two have started to carry a mass," dáh-ẓà·
(<dì-sì-ah-ẓà·) "you two have started to carry a mass," dél-xìz (<dì-sì-í-ł-xìz) "I have
twirled it."

§3:9. By internal modification we refer to changes in vowels, consonants, or
tonemes by which syllables morphologically related in function may alternate. In
Chiricahua Apache such modifications are highly irregular and we can do little
here but indicate some of the more frequently occurring processes.

Noun stems sometimes alternate phonetically depending upon their use in
the absolute or possessed form. Thus, initial voiceless spirants may become voiced
in the possessed form: xé·ł "pack, burden," bì-ɣé-lè "his pack," łì "smoke," bì-lì-dè
"his smoke."

Note, too, that the final consonants of noun stems vary. Thus, noun stems
having a zero final in the absolute may take a ʔ or d final in the possessed form.
The toneme and vowel duration may change as well. Examples: tó "water,"
bì-tòʔ "his water"; k̇à· "arrow," bì-k̇àʔ "his arrow"; łì "smoke," bì-lì-dè "his
smoke."

By far the most important changes of this sort occur in verb stems. These
may vary according to the tense and mode of the verb and the variations, briefly
summarized, are of the following types: changes in the final consonant of the stem
(e.g., -có·s, imperfective; -cò·z, perfective "to handle a fabric-like object"), changes
in the pitch accent of the stem (e.g., -ʔà·, momentaneous imperfective, -ʔá, con-
tinuative imperfective "to handle a round object"), changes in the quality of the
stem vowel (e.g., -ʔá·, imperfective, -ʔą́, perfective "to handle a round object"),
and changes in the length of the stem vowel (e.g., -ʔà·š, imperfective, -ʔàš, progres-
sive "two people move"). In some verbs, as may be seen from the examples given
above, more than one of these variations may take place. The stem variations are
highly irregular and it will be impossible to list here all of the possible patterns of
variation. The following list, however, will suffice to illustrate the commoner
types. Stems are given in this order: imperfective, perfective, progressive, iterative,

and optative. Where variant forms for aspect are listed, these are marked (mom. = momentaneous, cont. =continuative).

ʼàh; -ʼàh; -ʼàh; -ʼàh; "to butcher" (act. tr.)

-tʼè·; -tʼè·; -tʼè·ł; -tʼè·; -tʼè· "to handle a board-like object" (act. tr.)

-ʼà·; -ʼá; -ʼá·ł; -ʼá; -ʼà· "a noise is heard" (act. intr.)

-ká (mom.), -kà (cont.); -kà; -kàł; -kà; -ká "several move" (act. intr.)

-γè· (mom.), -γò (cont.); -γò; -γòł; -γò; -γè· "to move quickly, to run" (act. intr.)

-lé; -lá; -lé·ł; -lé; -lé (mom.), -là? (cont.) "to handle a rope-like object" (act. tr.)

-čì·; -čà·; -čì·ł; -čì·; -čì· "to defecate" (act. intr.)

-x̌ó; -x̌ǫ́; -x̌ó·ł; -x̌ó; -x̌ó "to tie" (act. tr.)

-ʼà· (mom.), -ʼá (cont.); -ʼą́; -ʼá·ł; -ʼá; -ʼà· "to handle a round object" (act. tr.)

-γé; -γį́; -γé·ł; -γé; -γé "to kill one" (act. tr.)

-zé; -zą́; -zé·ł; -zé; -zà? "a movement of peoples takes place" (act. tr.)

-γè· (mom.), -γé (cont.); -γį́; -γé·ł; -γé; -γè· "to carry a burden" (act. tr.)

-bì· (mom.), -bì? (cont.); -bą́; -bį́·ł; -bį́; -bì· "to win a game" (act. tr.)

-tàł; -tàł; -tàł; -tàł; -tàł "to burst" (act. intr.)

-ʼòł; -ʼè·ł; -ʼòł; -ʼòł; -ʼòł "to spread out" (act. tr.)

-dè·s; -dè·z; -dìs; -dìs; -dè·s "to singe" (act. tr.)

-ʼè·š; -ʼè·ž; -ʼìš; -ʼìš; -ʼè·š "to string beads" (act. tr.)

-bà·ł; -bàł; -bàł; -bàł; -bà·ł "to hang suspended" (act. intr.)

-bà·s; -bą́·z; -bàs; -bàs; -bà·s "to become round" (act. intr.)

-ʼà·š; -ʼá·ž; -ʼàš; -ʼàš; -ʼà·š "two persons move" (act. intr.)

-ʼè·ł; -é·ł; -ʼòł; -ʼòł; -ʼè·ł "to float" (act. intr.)

-ʼé·s; -ʼè·z; -ʼìs; -ʼìs; -ʼé·s "to step about" (act. intr.)

-ká·š (mom.), -kàš (cont.); -kà·ž (mom.), -kàš (cont.); -kàš; -kàš; -ká·š (mom.), -kàš (cont.) "to sharpen" (act. tr.)

-ʼį́·ł; -ʼį̀·ł; -ʼį́·ł; -ʼį́·ł; -ʼį́·ł "to copulate" (act. tr.)

The stem initials γ and l become x and ł, respectively, when preceded by s (<s+ł, see §3:5, [3]) or š (<š or <š+ł, see §3:5, [4]). γ also becomes x when preceded by ł (<ł or <h+ł, see §3:5, [5]). Examples: yì·s-xàš (<yì·s-ł-γàš) "he has bitten it," nàis-łì? (<nàis-ł-lì?) "he has burned it here and there," hìš-xą́ (<hìš-γą́) "I kill them," ʔáš-là· (<ʔáš-là·) "I have made it so," hì·š-xàš (<hì·š-ł-γàš) "I bite it," nà·š-łì? (<nà·š-ł-lì?) "I burn it here and there," yì·ł-xàš (<yì·ł-γàš) "he bites it," hà·ł-xàš (<hà·h-ł-γàš) "you two bite it."

Parenthetically, it may be noted that this assimilation does not always take place. Note, for example, dì·š-γá·š "I shout," nà·š-là· "I waddle," yìł-γàł "he eats it," gò·s =lį́ "he has been born." Comparative evidence makes it clear that š may be from an earlier *š+ł, ł from an earlier *l, and s from an earlier *z. The lack of assimilation noted in the examples just quoted is a trace of these archaisms in Chiricahua.

§3:10. Pitch accent is, as we have said, a syllable phenomenon. The pitch of a given syllable, however, is determined by the tones of the morpheme or morphemes which compose that syllable. Morphemes may be without pitch (e.g., š-, first person; ł-, classifier), neutral-toned, or possess inherent tone. The morphophonemic processes by which the toneme of a syllable is determined may be summarized as follows:

1) A syllable consisting of one or more neutral-toned morphemes ordinarily takes the low tone: sì- (<si-) in sì-ʔą́ "a round object lies," bì- (<bi-) in bì-tò? "his water," nàh- (<ni-ah-) in nàh-ⁿdè·z "you two are tall," hài- (<ha-yi-) in hài-ʔà· "he takes a round object out."

When a syllable consisting of one neutral-toned morpheme immediately precedes a high-toned syllabic n, it assimilates in tone: yí- (<yi-) in yà·-yí-ń-ʔą́ "he has given a round object to him."

2) Syllables consisting of one or more inherently low- or inherently high-toned morphemes have a low or high tone, respectively. Examples: nàh- (<nàh-) in nàh-tò? "our water," ná- (<ná-) in ná-mà·s "it rolls around," ná- <ná-'-) in ná-mà·s "you roll around."

3) Syllables combining low- and neutral-toned morphemes have the low tone: nà·h- (<nà·-hi-ah-) in nà·h-ʔà· "you carry a round object about," hì·h- (<hi-'-h-) in hì·h-bé·ž "we two boil."

4) Syllables in which a neutral-toned morpheme precedes one with an inherent high tone have the high tone: sí- (<si-í-) in sí-tį́ "I lie (there)," ń- (<di-'-) in ń-bá "you start off to war."

5) Syllables in which a high-toned morpheme precedes a low- or neutral-toned morpheme have the falling tone: n̂·ł- (<ní-'-h-ł-) in n̂·ł-łàh "we two butcher it," -bâo (<-bá-gò) in łì-bâo "it being gray," nâi- (<ná-yi-) in tà·-nâi-gìs "he washes him," bêi- (<bi-é-ži-) in ʔì-bêi-ži̧-ł-ⁿdí "he knocks it off."

In some cases, a neutral-toned morpheme following one with a high tone assimilates to it in pitch: náh- (<ná-ah-) in náh-zi̧· "you two are cured," ʔá- (<ʔá-ah-) in ʔá-łà· "you two have made it so."

6) Syllables in which a low-toned morpheme precedes a high-toned morpheme have the rising tone: nǎo- (<nà·-ho-'-) in nǎo-yà? "would that you would wander about."

4. MORPHOLOGY

THE NOUN

§4:1. Chiricahua Apache nouns may be divided into the following groups: monosyllabic nouns, nouns requiring a constant possessive prefix, thematic nouns, nouns formed from verbs, and compound nouns.

Monosyllabic nouns are those composed of a single free theme: ʔá "fog", ʔé·? "coat," tó "water," kòs "cloud," kà· "arrow."

Included in this class are certain nouns composed of a stem plus a suffix which cannot be isolated: tà·žè "chicken," tàlé "cedar," gą́hé "supernaturals of the mountain," kéhè· "moccasin game."

When monosyllabic nouns are preceded by a possessive pronoun prefix, they

sometimes alter in phonetic form. These alternations involve the following types of changes: an initial voiceless spirant may be voiced, a final voiceless spirant may become voiced, a zero final may be replaced by a consonantal final, and a vocalic suffix may be added. Examples: ʔé·ʔ "coat," bì-ʔéd-è "his coat" (bì- "his"); t̓á "feather," bì-t̓àʔ "his feather," k̓à· "arrow," bì-k̓àʔ "his arrow"; bé·š "knife," bì-béž-è "his knife"; xè·ł "pack," bì-γél-è "his pack"; łì "smoke," bì-łìd-è "his smoke."

Nouns requiring a constant possessor are composed of a single bound stem or of a bound stem plus vocalic suffix and a possessive prefix. Nouns of this classification generally denote body parts, kinship terms, or localities. Examples: bì-cì· "his head," bì-kè· "his foot" (cf. ké "moccasin, shoe"), bì-ⁿdâ· "his eye," bì-tà· "his father," bì-k̓ìs "his sibling of the same sex," bì-bé·žè "his stepfather," bì-γèʔ "its inside; inside it," bì-ká "its surface; on top of it," bì-c̓á "away from it."

With some nouns of this sort, particularly those denoting body parts, it is possible to distinguish between alienable and inalienable possession. Thus, for example, bì-cì· "his head" denotes the head which is a part of the individual's body but bì-ʔì-cì·, which means literally "his someone's head" (ʔì-, indefinite possessive), denotes a head once the inalienable part of another's body but now in the possession of the individual referred to by the pronoun bì-.

In compounds, nouns requiring constant possessors may sometimes occur without the possessive prefix: cì-t̓á "top of the head" (cì-́ "head," -t̓á "top," both of which require the possessive prefix when used independently), dá-γèʔ "throat" (dá- "chin," γèʔ "inside"), dá-γà· "beard" (γà· "hair, wool").

Thematic nouns are composed of a prefix plus a stem. The prefix cannot be isolated from the stem in meaning. Examples: dì-béhé "sheep," yá-t̓ì "talk, conversation," ná-t̓òh "tobacco," gò-t̓ál "ceremony," kò·-γà̱ "home, camp" (cf. γà̱ "home"), kò·-tà "encampment."

These nouns do not alter their form in the possessive: šì-dìbéhé "my sheep," šì-kò·γà̱ "my home," šì-nát̓òh "my tobacco."

Nouns formed from verbs are of two kinds: those which are composed of a verb form alone, and those which are composed of a verb form plus relative enclitic. Examples: nà·t̓á "chief; he commands," ʔèⁿt̓í̱ "witch; he bewitches him," gòłgà "a plain, clearing; it (a place) is white," dìγì "ceremony, shaman; it is holy," šìłnà·ʔà·š "my spouse; he lives with me," łìbá-ń "a class of supernaturals; he who is gray," hà̱ʔdì·ʔá-ń "singer; he who sings."

More complex nouns of this class are formed from clauses. These consist of a clause plus relative enclitic: bé·š-ǹk̓ìz-í "steel; that metal (bé·š) which is hard" (ǹk̓ìz "it is hard"), bì-ǹcà·í "elk; that deer (bì-) which is big" (ǹcà· "it is big"), ńłc̓ìʔ-dìłxìł-í "cyclone; that wind (ńłc̓ìʔ) which is black" (dìłxìł "it is black").

Noun compounds are very common in Chiricahua Apache. They may be divided into four groups: noun plus noun compounds, noun plus particle, noun plus verb stem, and noun (or particle) plus verb. Examples: tó-ⁿdé "all water creatures"

(tó "water," ⁿdé "beings"), gòlgà-ʔìžášè· "horned lark" (gòlgà "plains," ʔìžášè· "bird"), k̀à·-γé·ł "quiver" (k̀à· "arrows," -γé·ł "burden"), k̀à·-bé·š "arrow point" (bé·š "metal"), nì·šžà·-dábádé "pygmy owl" (nì·šžà· "owl," -dábádé "small, in-significant"), ńłcą́-bìʔá "a light rain" (ńłcą́ "rain," bìʔá "female"), čís-tè·ł "ter-rapin" (-čís "body," -tè·ł "to be wide"), cè·-žìn "a species of eagle" (cè·· "tail," -žìn "to be black"), cì-skà· "a place name" (cì· "trees," -skà· from sìkà· "a clump [of trees] lies"), góčį́-dàgìž "the cutting of the nose, a punishment for adultery" (góčį́ "his nose," dàgìž "it has been cut").

§4:2. Only one set of prefixes may be combined with the noun. These are the possessive pronoun prefixes.

Person	Singular	Dual	Distributive
1	ši·	⌠nàhi- or	⌠dà·nàhi- or
2	ni·	⌡nàh-	⌡dà·nàh
3	bi·	bi·	dà·bi·
4	go·	go·	dà·go·
indef.	ʔi·	ʔi·	dà·ʔi·

Five persons are distinguished: first, second, third, fourth, and the indefinite. The fourth person is used when reference is made to certain relatives by marriage with whom a respect relationship is maintained. It may also be used in a context in which it is necessary to distinguish two third persons. The indefinite possessor is employed when it is necessary to indicate that a thing is possessed but it is not necessary to specify the possessor.

In the dual, there is no difference between the pronouns for the first and sec-ond persons. The distinction between nàhi- and nàh- seems to be purely phonetic but no rule can be given regarding their use.

Ordinarily, the third person singular forms are used in the dual as well. Where, however, it is necessary to specify the third person dual, the form góbi- may be used.

THE VERB

§4:3. All verbs may be divided into a prefix complex (composed of one or more prefixes) and a theme. The theme may consist of a single stem (e.g., -ʔà· "a round object moves," -gà "to be white") or of a prefix (called a "thematic prefix") plus a stem (e.g., ná-. . .-tòh "to smoke," go-. . .-tà·ł "to conduct a ceremony"). The thematic prefix generally occupies position four in the prefix complex (see §1:2). It remains the same in all forms of the verb.

The verb stem, however, may vary according to the tense and mode of the verb. These variations have already been described; see §3:8.

Five tense-modes are recognized, each of which may theoretically be varied for aspect as well. In no case, however, does a verb have a distinct form for each

tense-mode and aspect. For most verbs, there are perhaps only three distinct stems; in a few cases, there may be as many as five or six.

§4:4. In §1:2 was given a list of the prefixes to the verb in the order in which they occurred in the complex. These prefixes, for the purposes of the morphological description, may be divided into the following groups: adverbial prefixes (occupying positions 2, 4, and 9), object pronoun prefixes (occupying positions 3 and 7), subject pronouns and deictic prefixes (occupying positions 8 and 11), tense-modal prefixes (occupying positions 5 and 10), and the classifiers (occupying position 12).

The adverbial prefixes, as the name implies, add a measure of concrete significance to the theme. They differ from the thematic prefixes in that they are not indissolubly a part of the theme but may be found with a number of themes. There are probably as many adverbial prefixes and prefix combinations as there are stems. To illustrate their use, let us take the theme -ʔà·, -ʔą́, -ʔá·ł, -ʔá, -ʔà· "to handle a round object" and see the variety of meanings obtainable by varying the adverbial prefixes:

O-à·-ni-. . . "to give a round object to someone" (O, any object pronoun, à- "to"; ni-, completive).

ʔáh-. . . "to put a round object inside" (ʔáh- "in, inside").

dàh-yí-. . . "to put a round object on top" (dàh-yi- "up, on top").

di-. . . "to begin to carry a round object" (di- "to begin to").

nà··. . . "to carry a round object here and there" (nà·- "about, here and there").

ná-di-. . . "to pick up a round object" (ná-di- "movement upward").

ná-ni-. . . "to bring a round object back" (ná- "back," ni-, completive; see the first example above).

nì-ni-. . . "to put a round object down" (nì- "down, to a stop"; ni-, completive).

hà-. . . "to take a round object out" (hà- "out of an enclosed space").

céh-. . . "to put a round object in the fire" (céh- "into the fire").

Most of the prefixes and prefix combinations above may be used with more than one theme. Thus, for example, the prefix combination ná-di- "movement upward" forms the following verbs:

ná-di-. . .-ł-tè· "to pick up an animate object" (stem: "to handle an animate object").

ná-di-. . .-ʔà·š "two persons get up, arise" (stem: "two persons move").

ná-di-. . .-tį̀ "to pick up a slender object" (stem: "to handle a slender object").

ná-di-. . .-ká "several stand up, arise" (stem: "several persons move").

ná-di-. . .-γè· "to carry a burden up" (stem: "to carry a burden").

Though the adverbial prefixes are not conjugated, they do have some relational significance. Thus, certain adverbial prefixes require the conjunct form of the

imperfective paradigm whereas others require the disjunct form (see §4:7, [1]). Similarly, the adverbial prefixes determine the type of perfective paradigm required by the verb form. Thus, for example, the prefixes di- "to begin to" and nà- "about, here and there" always require the verb to take the si- perfective paradigm, whereas the prefixes di-, referring to noise or sound, and nà- "down, off, into" require the hi- perfective paradigm.

Finally, the determination of aspect seems definitely a function of the adverbial prefix. The prefix di- "to begin to" always requires the momentaneous aspect and the prefix nà- "about, here and there" the continuative aspect. Contrast this with the prefix di-, referring to repetetive action, which always requires the repetetive verb stem, and the prefix nà- "down, off, into" which takes the momentaneous stem. In many cases, however, the prefix does not specifically require a particular aspectival form.

§4:5. The object pronoun prefixes are as follows:

Person	Singular	Dual	Distributive
1	ši-		
		nàhi-	dà·nàhi-
2	ni-		
3	bi-	bi-, góbi-	dà·bi-, dà·góbi-
	yi-	yi-, góyi-	dà·yi, dà·góyi-
4	go-	go-	dà·go-
indef.	ʔi-	ʔi-	dà·ʔi-

The reflexive prefix is ʔá- or ʔád-, the former preceding a consonant, the latter a vowel. The reciprocal prefix is ʔìł-.

The third person object is ordinarily indicated by zero in all forms but the third person. When the subject is also the third person, the third person object is indicated by the prefix yi-. bi- is used only to denote the indirect object of a verb form in persons other than the third person.

The same distinction between the third and fourth persons applies here as in the case of the possessive pronouns (see §4:2).

§4:6. There are two sets of subjective pronouns in Chiricahua Apache:

Person	Set (a)	Set (b)
Sing. 1	š-	í-
2	ñ- or -́-	n̂-
3	zero	zero
Dual 1	ì·(d)-	ì·(d)-
2	ah-	àh- or à·h-

Set (a) is used in the imperfective, progressive, iterative, and optative modes. It is also used in the perfective paradigms when the verb has the d or l class (see §4:8). Set (b) is used only in the perfective paradigms of zero and ł class verbs.

In the second person singular, n̓· is used in the disjunct imperfective paradigm and the high tone (which is attached to the adverbial prefix preceding) in the conjunct imperfective paradigm.

In set (b), àh· is used in the si· and ni· perfective paradigms, while à·h· is used only in the ho· perfective paradigm.

The fourth person subject, a place or time subject, and an indefinite subject are indicated by the deictic prefixes ži·, go·, and ʔi·, respectively.

§4:7. The Chiricahua verb is conjugated in five principal modes: imperfective, perfective, progressive (from which the future is formed), iterative (also the base for the customary), and the optative. We have already dealt with stem variations for mode; here we shall deal with the prefix complex.

1) The imperfective mode, in a large majority of cases, is indicated by the absence of a modal prefix. In a verb which has adverbial prefixes, then, these prefixes are combined directly with the subject pronouns of set (a), the second person singular pronoun being a high tone. Thus, for example, the verb ná·ni·. . .·ʔà· "to bring back a round object" is conjugated as follows in the imperfective mode: nánš̌ʔà· (<*ná·ni·š̌·ʔà·) "I bring back a round object," nánʔà· (<*ná·ni·´·ʔà·) "you . . . ," náiʔà· (<*ná·yi·ni· ·ʔà·) "he . . . ," nážíʔà· (<*ná·ži·ni·ʔà·) "he (fourth person) . . . ," nán·t̓à· (<*ná·ni·ì·d·ʔà·) "we two . . . ," nánàhʔà· (<*ná·ni·àh·ʔà·) "you two . . . ."

When the verb has no thematic or adverbial prefixes, the second person singular is indicated by a pronoun n̓·, and a prefix hi· appears before the pronoun in each of the other persons: hìšbé·ž (<*hi·š̌·bé·ž) "I boil," n̓·bé·ž "you boil," hì·bé·š̌ "he boils," žì·bé·š̌ "he (fourth person) boils" (here the fourth person deictic element makes hi· unnecessary), hì·bé·ž (<*hi·ì·d·bé·ž) "we two boil," hàhbé·ž (<*hi·àh·bé·ž) "you two boil." If such a verb is transitive, the object pronoun will replace the hi· element: nìšbé·ž (<*ni·š̌·ł·bé·ž) "I boil you," yìłbé·ž "he boils him."

Certain adverbial prefixes require the disjunct form of the imperfective. This means that a prefix hi· is inserted between the adverbial prefix and the subject pronoun in all but the second person singular and where deictic or object pronouns are used. The second person singular of such conjugations is marked by the prefix n̓·. Thus, for example, the verb ha·. . .·ʔà· "to take out a round object" is conjugated as follows in the imperfective mode: hà·š̌ʔà· (<*ha·hi·š̌·ʔà·) "I take out a round object," hàn̓ʔà· (<*ha·n̓·ʔà·) "you . . . ," hàiʔà· (<*ha·yi·ʔà·) "he . . . " (here the required third person object yi· replaces the hi· prefix), hà·žìʔà· "he (fourth person) . . . " (ži· makes hi· unnecessary), hàhì·t̓à· (<*ha·hi·ì·d·ʔà·) "we two . . . ," hà·hʔà· (<*ha·hi·àh·ʔà·) "you two . . . ."

The imperfective mode denotes activities in the process or activities about to

fulfill themselves. Examples: k̃idàsàhʔà· "you two tie a fabric on him," ṅ̃ńʔà· "put the round object down," nánšá "I am going home," nádì·ʔà· "he picks up the round object." Neuter verbs denoting states and qualities undefined as to time are also conjugated in the imperfective paradigm: l̃igà "it is white," ṅ̃ⁿdè·z̨ "I am tall," ʔát̃é "it is so."

2) There are three perfective paradigms: the si- perfective, the ho- perfective, and the ni- perfective. When the verb has a zero or ł classifier, the pronouns of set (b) are used; and when the verb has a d or l classifier, the pronouns are of set (a). The forms are as follows:

Person	si- perfective		ho- perfective		ni- perfective	
	zero and ł	d and l	zero and ł	d and l	zero and ł	d and l
Sing. 1	sí·	sìš-	hó··	hòš-	ní·	nìš-
2	síṅ-	síṅ-	hóṅ-	hóṅ-	ń̃·-	ń̃·-
3	sì-	sì-	hó··	hà-	ń-	ń-
4	z̨ì·s-	z̨ì·s-	z̨ó··	z̨à-	z̨íń-	z̨íń-
Place	gò·s-	gò·s-	gò··	gà-	góń-	góń-
Indef.	ʔì·s-	ʔì·s-	ʔó··	ʔà-	ʔíń-	ʔíń-
Dual 1	sì·(d)-	sì·(d)-	hò·(d)-	hò·(d)-	ṅ̃·(d)-	ṅ̃·(d)-
2	sàh-	sàh-	hà·h-	hà·h-	nàh-	nàh-

The above are the characteristic forms of each of the paradigms. When the verb employs adverbial prefixes, these often unite with the tense-modal prefixes in such a way as to obscure the forms quoted. For a summary of some of the more important contractions of this sort, see the phonology, §§3:4–3:7.

The perfective paradigms, like those for the imperfective, serve two functions: to form neuter verbs and to form the perfective mode of active verbs. Perfective neuters define states or qualities which have resulted from previous action. The si- perfective is employed when a durative static notion is implied: sìʔą́ "a round object has position," sìdá "he is sitting," sìz̨í "he is standing." The ho- perfective is used when an inceptive static notion is implied: dìcì·ʔó·ʔá-í "a standing tree" (dìcì "tree," ʔó·ʔá "a rigid object has extension"), z̨à·hò·ʔá-í "a bridle bit" (z̨à·· "mouth"; hò·ʔá "a rigid object extends out from an enclosed space"). Finally, the ni- perfective is used when a completive static notion is implied: nà·ʔńʔá "bridge; a rigid object extends across (to the other side)," góńʔá "arroyo; a rigid object (the reference is to a place) extends off (but with definite end)."

The perfective mode of the active verb distinguishes an action that has become complete. The form of the perfective paradigm is determined by the meaning of the adverbial prefixes and the theme. Thus, nà·síyá "I have moved about" (nà·· "here and there"; -yá "one person moves") may be contrasted with hăoyá

"I have come out of an enclosed space" (ha- "out of an enclosed space"), and ṅníyá "I have arrived, I have stopped moving" (nì- "to an end").

3) The progressive, future, iterative, and optative paradigms are all formed by adding certain prefixes (ho- for the progressive, do- or da- for the future, ná- for the iterative, and ho- for the optative) to the conjunct imperfective pronouns. The forms are as follows:

Person	Progressive	Future	Iterative	Optative
Sign. 1	hòš-	dò·š-	náš-	hóš-
2	hó-	dó·-	ná-	hó·-
3	hò-	dà-	ná-	hó-
4	žà-	žìdà-	nážì-	žó-
Place	gà-	gòdà-	nágò-	gó-
Indef.	?à-	?ìdà-	ná?ì-	?ó-
Dual 1	hò·(d)-	dò·(d)-	nâ·(d)-	hò·(d)-
2	hàh-	dà·h-	náh-	hà·h-

Adverbial prefixes often unite with those denoting the progressive and optative modes in such a way as to obscure their form.

The progressive paradigm functions in the progressive mode of active verbs. It signifies action carried on while moving along: hòš?á·ł "I am carrying a round object" (literally: "I handle a round object while moving along"), hòžàh "he is hunting" (lit: "he hunts while moving along").

The future seems to be formed from the progressive by the addition of an element di- or de- to the progressive prefixes. The same stem form is used in both paradigms.

The future is the only obligatory tense form in Chiricahua Apache. All other tenses are expressed periphrastically by means of enclitics.

The iterative mode expresses repeated or habitual activity: nádìšdá "I begin to go home again and again," nášžá "I hunt repeatedly, I am a hunter." Another mode, the usitative, may be formed by combining the prefix complex of the imper-fective with the stem of the iterative. This mode expresses usual or customary activity.

The optative mode expresses a wish or desire that some activity be per-formed. nò·ká "would that we go; let's go," gòdóyà? "would that [the ceremony] begin."

§4:8. Chiricahua Apache verbs may be divided into four classes. These classes are in part distinguished by the classifier contained in the prefix complex, and in part by certain modifications in the pronoun subjects employed.

Zero class verbs are distinguished by the lack of a classifier and the fact that subject pronouns of set (a) are employed in all modes but the perfective, which

uses the pronouns of set (b). Zero class verbs may be neuter or active, transitive or intransitive: sìʔą́ "a round object lies" (neuter intr.), yàʔį "he sees it" (neuter trans.), ʔìdìʔà· "a round object begins to move" (act. intr.), yìdìʔà· "he begins to carry a round object" (act. tr.).

Some zero class intransitives may be made transitive by the addition of the -ł- classifier: sí-ł-ʔą́ "I have a round object lying" (cf. sìʔą́ "a round object lies"), sí-ł-tį "I have an animate object lying" (cf. sítį "I lie"), nài-ł-tè· "I carry an animate object about" (cf. nà·tè· "an animate object moves about"), yì-ł-bé·ž "he boils it" (cf. hìbé·ž "it boils").

This, however, is not true in all cases. Some transitives formed from intransitives do not add the -ł- classifier but retain the zero class: cf. ʔìdìʔà· "a round object begins to move" with yìdìʔà· "he begins to carry a round object"; sìtą́ "a long slender object has position" with ǹyíńtą́ "he has put a long slender object down." Furthermore, there are a number of intransitive verbs which have the -ł- classifier: hìłkà· "day is dawning," ʔìłxòš "he is sleeping," ʔì·łxá·š "he is about to fall asleep." Verbs with -ł- classifiers (these also have the pronouns characteristic of the zero verbs), then, may also be either transitive or intransitive, neuter or active.

All passive and mediopassive verbs have either a -d- or an -l- classifier. These classifiers, however, do not always appear in the verb form. -d- is indicated only when certain consonants are initial in the stem (see §3:5), or by an h before the stem, or by the fact that the perfective paradigm employs subject pronouns of set (a). Similarly, the -l- classifier becomes -ł- in all Chiricahua verbs and -l- verbs can only be distinguished from -ł- verbs by the effect of the -l- classifier on certain stem initials (see §3:10), and the fact that subject pronouns of set (a) are employed in the perfective paradigm.

Passives and mediopassives derived from zero class verbs employ the -d- classifier: hìtà·ł "it is being chewed" (cf. yìʔà·ł "he chews it"), nè·sťį "it has been stolen" (cf. yìnè·sʔį "he stole it"), dà·hìhⁿdí·ł "several objects are being scattered about" (cf. dà·yìⁿdí·ł "he scatters several objects about"), ńdèšťį "I have hidden" (cf. ńdéłʔį "I have hidden it"). Passives and mediopassives derived from -ł- verbs employ the -l- classifier: nílťàh "it is being butchered" (cf. ńyìłʔàh "he butchers it"), hòšⁿdá "I have been licked" (cf. hó·łⁿdá "I have licked it").

Not all -d- and -l- class verbs are passives. There are a number of prefixes which require the -d- or -l- class regardless of the voice of the verb: nádìšdá "I begin to go again and again" (cf. dìšá < *di-š-há "I begin to go"), ʔìłgóžǫ́ "they love one another" (cf. bìłⁿžǫ́ "he loves you"), nádìšgá·ł "I look again" (cf. dìšxá·ł "I look"), náǹšgè· "I carry it back" (cf. dìšxè· "I start to carry it").

The classifiers and their functions may, then, be summarized as follows:

   I. Zero class verbs
     A. Intransitives
     B. Transitives
   II. -ł- class verbs
     A. Transitives derived from verbs of class I A

B. Intransitives
III. -d- class verbs
   A. Passives derived from verbs of class I B
   B. Other -d- class verbs
IV. -l- class verbs
   A. Passives derived from verbs of class II A
   B. Other -l- class verbs

THE PARTICLE

§4:9. Particles are of two kinds: pronouns (independent personal pronouns, demonstratives, and interrogatives), and those particles which function as numerals, connectives, adverbs, and adjectives.

1) The independent personal pronouns are as follows: ší, first person singular; ⁿdí, second person singular; bí, third person; kí, fourth person; nàhí, first or second person dual; and góbí, third person dual. Distributive forms of these pronouns are formed by prefixing the distributive dà·: dà·nàhí, first or second person distributive; dà·bí or dà·góbí, third person distributive; and dà·kí, fourth person distributive. None of these forms may be inflected; their syntactic function may be indicated by their position in the sentence or may be inferred from the context.

2) Demonstrative pronouns are composed of a bound stem plus an enclitic. There are eight principal demonstrative stems: ʔì·- "here" (position nearest the speaker), ẓà·- "here," ʔá- (or ʔá·-) "there," γà- (or γàh-) "there; over yonder," kò- "hereabout, thereabout," dí- "this," ʔá- "that," and ʔáγá- (or ʔáγà-) "that yonder." The first five, referring to places, are usually found in combination with the following postpositions: -è· "at, in, on," -ší "from," -ẓì "to," and -yá, a generalized postposition functioning to link the verb with the indirect object. The last three demonstrative stems, which refer to persons or things, are always combined with one of the following relative enclitics: -í, referring to things, actions, or collectivities, and -ń, referring to persons. The following table summarizes the more frequently occurring demonstratives:

Stems	-è·	-ší	-ẓì	-yá
ʔì·-	ʔì·è·	ʔì·ší		
ẓà·-	ẓà·è·	ẓà·ší	ẓà·ẓì	
ʔá-	ʔáè·	ʔáší	ʔáẓì	
ʔà·-	ʔà·è·	ʔà·ší		
γà-	γàè·	γàší	γàẓì	γàhyá
kò-		kòší		kòyá or kòʔyá

Stems	-í	-ń
dí-	dí·	díń
ʔá-	ʔáí	ʔáń
ʔáγá-	ʔáγáí	ʔáγáń
ʔáγà-	ʔáγàí	ʔáγàń

3) The interrogative and indefinite pronouns are expressed by identical forms, a context being necessary to distinguish them. Four of the stems, xà$^{\gamma}$-, xà·-, and xà·d-, occur only with enclitics; the fifth, yâ· or $^{\gamma}$ìyâ·, may occur alone. xà$^{\gamma}$šį "where from, from somewhere," xà$^{\gamma}$yá "where; somewhere," xá-ń "who; some-one," xá-dą "at what place; someplace," yâ·, $^{\gamma}$ìyâ· "what; something," xà·d-í "what thing; something."

4) The remainder of the particles exhibit a variety of forms, from the mono-syllabic structure characteristic of some numerals to the polysyllabic constructions of the adverbs. Particles may not be inflected or otherwise altered in structure. They function as numerals, connectives, adverbs, and adjectives: dáłè·$^{\gamma}$é "one," nà·kì "two," tá·$^{\gamma}$ "three," dį·$^{\gamma}$ "four," $^{\gamma}$ákò· "and, then," $^{\gamma}$áńdè·dà "and so, just then," nágò "then," $^{\gamma}$ìlkìdą "long ago," xąh "in a hurry," ndàh "but," dá·^{n}dí "truly, certainly."

§4:10. Proclitics and enclitics are bound forms which may be added to words of any form class. The commoner proclitics are as follows: dá- "just, only," dò·-, al-ways used with the enclitic -dà to express the negative, dásí- "very much, exceed-ingly."

Enclitics are more numerous and may be divided into three groups: post-positions, relatives, and tense-modal enclitics. Examples: -è· "at, in," -šį "from," -í, relative referring to things, actions, and collectivities, -ń, relative referring to persons, -^{n}dè "people of . . . group," -ǹ, past tense, -gò, subordinating enclitic, -ná$^{\gamma}$à, narrative enclitic.