

Jicarilla Apache

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Jicarilla Apache is an Eastern Apachean language, a member of the Athabaskan family of North American languages. The speech described here is that of one of the authors, Merton Sandoval of Dulce, New Mexico. The Apachean group is comprised of Western Apachean (Navajo; the Western Apache dialects Cibecue, San Carlos, and White Mountain; and Chiricahua and Mescalero) Eastern Apachean (Jicarilla, Lipan) and Plains Apache (formerly called Kiowa Apache). The other major groups of Athabaskan languages include the northern group of languages spoken in Alaska and Canada, and the Pacific Coast group spoken in Oregon and California. While the western Apachean languages have a well-documented member in Navajo, the eastern group is less well known, being best documented so far in the works of Goddard (1911), Hoijer (1938, 1945, 1946a, 1946b) and Jung (1999). Differences between the western and eastern groups concentrate in consonant development and the evolution of stem shape, and, to some extent, in the lexicon; however, Jicarilla resembles all other Athabaskan languages in bearing a close morphological relationship to all its relatives.

Consonants

	Bilabial	Dental	Post-alveolar	Velar	Labialized Velar	Glottal
Plosive Aspirated		t ^h		k ^h	k ^{wh}	
Plosive	p	t d		k	k ^w	ʔ
Affricate Aspirated		ts ^h	tʃ ^h			
Affricate		ts	tʃ			
Affricate Lateral Aspirated		tɬ ^h				
Affricate Lateral		tɬ				
Nasal	m	n				
Approximant			j			
Lateral Approximant		l				
Fricative		s z	ʃ ʒ	x	ɣ	x ^w ɣ ^w
Lateral Fricative		ɬ				
Ejective		tʼ		kʼ		
Ejective Affricate		tsʼ	tʃʼ			
Ejective Lateral		tɬʼ				

Jicarilla Apache obstruents include voiced, unaspirated, aspirated and glottalized stops and affricates at four places of articulation, but not all distinctions exist at all places. The reason for this discrepancy is historical: an old three-way laryngeal distinction over obstruents did not include the labial articulations, which were all sonorant (nasal or approximant). Thus all labial obstruents in Jicarilla (excluding those in Spanish loanwords) are descended from sonorants. In addition, the consonant reflected as aspirated /t^h/ in most other Athabaskan languages has merged with /k^h/ in Jicarilla, so that /t^h/ only occurs in a small number of forms.

The voiced-unaspirated-glottalized distinction is fully expressed only in stem-initial position though these distinctions are displayed in some prefix-initial consonants. Word-finally, laryngeal distinctions are not present in obstruents. Unaspirated stops are characterized by a short but consistently positive voice onset time, 0–20 milliseconds. Intervocally, when not in stem-initial position, they may be voiced. Unaspirated affricates often become voiced partway through the fricative release. Examples in this article were identified with the help of Phone & Torivio (1981) and Lachler (1998), but are not limited to forms found in these works. In (1), a dot represents a syllable boundary. The spelling in the middle column uses the system developed by Phone and Torivio for the Dulce school language programs.

(1) Unaspirated stops and affricates

p	mi.'piʔ	miibi'	'his or her belly'
t	mi.'tɪ.li	miidili	'his or her blood'
ts	tsɪɬ	dziɬ	'mountain'
tʃ	mi.'tʃa:	mijaa	'his or her ear'

tʄ	tʄah	dlah	‘moss’
k	kəh	gah	‘rabbit’
k ^w	k ^w íʔ	gwíʔ	‘snake’
ʔ	ʃa.ʔi.ʔajʔ	shaʔiʔaiʔ	‘west’

In a restricted group of words, containing obstruents which developed from reconstructed *n, voiced /d/ is also found in Jicarilla. There are no analogous affricates. Examples of this contrast are given in (2).

(2) Voiced and unaspirated stops in native Jicarilla words

Voiced	mi. 'dá:	miidáá	‘his or her eyes’
	hidá:	hidáá	‘he or she is alive’
	tɪ. 'dé	didé	‘man, person’
Voiceless	mi. 'ta:	miidaa	‘his or her lips’
unaspirated	mi. 'tɛ:	miidee	‘its horn’
	mi. 'tɪ.li	miidili	‘his or her blood’

Numerically, most of the aspirated stops in Jicarilla utterances are velar, because of the *t^h > k^h historical development. The alveolar example in (3) below is a member of a very small set. The aspirated affricates are distributed more regularly. The affricates in this set are pronounced with voiceless release and measurable aspiration.

(3) Aspirated stops and affricates

t ^h	n. 't ^h óh	ntóh	‘he or she is pouting’
ts ^h	ts ^h é	tsé	‘rock’
tʄ ^h	tʄ ^h ah	tʄah	‘ointment’
tʃ ^h	tʃ ^h ɪʃ	chish	‘firewood’
k ^h	k ^h ih	kih	‘house’

Ejective stops and affricates are also found in Jicarilla, as shown in (4).

(4) Ejective stops and affricates

tʔ	mi. 'tʔá	miitʔá	‘its feather’
tsʔ	'tsʔi: .jɛ	tsʔiyé	‘fly’ (insect)
tʄʔ	tʄʔóh	tʄʔóh	‘grass’
tʃʔ	tʃʔɛ: . 'k ^h é:	chʔeekéé	‘girl’
kʔ	kuʃ. 'kʔən	goshkʔan	‘yucca banana’

Fricatives may be voiceless or voiced. Note that the laterals are grouped here as fricatives, despite the phonetic form of /l/, which is not notably noisy; this representation respects the phonological patterning of laterals as segments which may occur in the release portion of an affricate, and the alternations between ʄ and l which occur productively in the phonology.

(5) Fricatives

s	sɪs	sis	‘belt’
z	zəʃ	zas	‘snow’ (noun)
ʄ	ʄí	ʄí	‘horse’
l	la. 'zɪs	lasis	‘gloves’
ʃ	ʃaʃ	shash	‘bear’
ʒ	ʒá:l	zháal	‘money’
x	xaj	hai	‘winter’
ɣ	ʔi. 'ɣa:	ʔiighaa	‘wool’
x ^w	'x ^w ɪ:ko	hwiigo	‘very quickly’
ɣ ^w	mi. 'ɣ ^w o:	miiwoo	‘his or her tooth’

While other allophonic and phonetic approximants exist in Jicarilla ([w] and [ɥ^w] as allophones of /ɣ^w/, [ɥ] as an allophone of /ɣ/, lenited versions of glottal stop), the only phonemic approximant besides /l/ is /j/, as found in /jáʔ/ ‘louse’.

The nasals in Jicarilla are /m/ and /n/, as shown in (6).

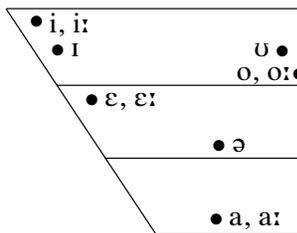
- (6) Nasals
- | | | | |
|---|--------------|------------|-------------------|
| m | maʃ.ˈtʰo.kɛː | mashdlogee | ‘butterfly’ |
| n | mi.ˈniː | miinii | ‘his or her face’ |

/m/ is never found word-finally, for historical and morphological reasons, and is most frequent in prefixal positions. /n/ is found in all positions and is considered syllabic when it occurs between consonants or at the beginning of a word preceding another consonant. Syllabic /n/ may vary with ni- for some speakers.

Vowels

(7) Vowel examples

iː	mi.ˈniː	miinii	‘his or her face’ (final σ)
i	mi.ˈniː	miinii	‘his or her face’ (initial σ)
ɛː	mi.ˈtɛː	miidee	‘its horn’
ɛ	tɪ.ˈdɛ	didé	‘man, person’
aː	mi.ˈtʃaː	miijaa	‘his or her ear’
a	tʰah	dlah	‘moss’
oː	mi.ˈɣ ^w oː	miiwoo	‘his or her tooth’
o	tʰʰóʔ	tʰʰóʔ	‘rope’
ɪ	tsɪʔ	dzil	‘mountain’
ʊ	kʊʃ.kʰən	goshkʰan	‘yucca banana’
ɛ	zɛs	zas	‘snow’ (noun)



Some short peripheral vowels are descended from vowels which were similar in quality (/tʰʰóʔ/ ‘rope’) while others appear to have developed from historically more central vowels (prefixal /i/ in /mi.ˈniː/ ‘his face’, for example), so their quality is innovative. Reconstructions of Athabaskan vowels (e.g. Krauss 1964) refer to the longer, more peripheral vowels as ‘full’ and the central, usually shorter and more variable vowels as ‘reduced’, although there is no synchronic reduction process posited. In Jicarilla, it seems that the short ‘full’ vowels have not completely fallen together with the short ‘reduced’ vowels, based on the speaker’s intuition and pronunciation, even though the spelling system would suggest such a development in some words; compare /tʰʰóʔ/ ‘rope’ with /kʊʃkʰən/ *goshkʰan* ‘yucca banana’. It is not clear whether stem vowels are more likely to have taken on ‘full’ or peripheral quality than prefix vowels, since the possessive prefix also participates in this innovation. Further research is needed to clarify these points in Jicarilla vowel development.

There are phonemically oral and nasal versions of each vowel, but not all combinations of vowel quality, nasality and tone are possible. The nasalized variant of the mid front vowel is very infrequent compared to nasalized variants of the other vowels.

(8) Short nasal vowels

ĩ	ʃi.ˈtsʰĩ	shiitsi	‘my meat’
ẽ	kʰɛkaj	kʰekai	‘they went out’
ã	ʔa.ˈtãʔ.tã	adã.dã	‘yesterday’
õ	nʰ.tʰõ	nʰtõ	‘it stinks’

(9) Long nasal vowels

ĩː	kʰĩː	kʰii	‘sumac’
ẽː	ẽtĩː	eedii	‘it’s gone’

ā:	fā:f	shaash	'tree knot'
ō:	sō:s	soos	'star'

Tones

There are high, low and falling tones. Falling tones are often found in loanwords, apparently reflecting reinterpretation of stress in the donor language, but they also result from historical lenition and deletion of consonants. (10) shows three tone patterns on the same segmental string, each with a different meaning.

(10) Three tone patterns on one segmental string

mi.'ní:	miiní	'his nostril'
mi.'ni:	miinii	'his face'
mí.'ni:	míinii	'his mind'

Although, as stated above, not all combinations of vowel quality, quantity, nasality and tone are found, for non-mid vowels the matrix of possibilities is fairly well filled, as is shown in (11).

(11) Tone, length and nasality combinations

Long oral high tone	ʃi.ʔá:	shii'áá	'my mother'
Long oral low tone	ʔi.ʔa:	'iighaa	'wool'
Long oral falling tone	nɛ:s.'t'ân	neest'áan	'vegetables'
Short oral high tone	ʔi.'ʔáʔ	'iigháʔ	'bell'
Short oral low tone	xaʔ	haʔ	'club'
Long nasal high tone	ʔi.t'á:.'ʔá:	'iit'áázháá	'aspen'
Long nasal falling tone	xaʔ.táo.'nâ	ha'dáo.náa	'how?'
Long nasal low tone	fā:f	shaash	'tree knot'
Short nasal high tone	ʔa.'táʔ.tá	'adá'dá	'yesterday'
Short nasal low tone	xa.'ʔɛ:.'ʔa	ha'ée'á	'you're welcome, OK'

n as a tone-bearing unit

Syllabic /n/, which appears to be morphologically defined, may bear high or low tone but not falling tone. Comparative evidence supports the native intuition that high-toned /ń/ is underlyingly a syllable /ní/. However, neither low nor high /n/ seems to occur with a vowel very often in our recordings. Thus, in derived contexts, either productive or lexicalized, there are four possible contours for VN and NN: LH, HL, HH and LL. Examples are given in (12).

(12) Vowel and tone-bearing /n/ combinations

	VV		NN	
LH	xɛ:ń. 'kʰés héenkés	'What time is it?	n.ń.'tɛj nńde	'stand up'
HL	á.n.ʔ.'ʔí: ánʔ'í	'You sg. are doing something, trying'	ń.n.'ʔé ńnshé	'You sheared it'
HH	ʔi.ko.'ʔán 'igo'án	'Hole'	xa.'ʔń.ń ha'ńń	'Whoever'
LL	ʔá.ko.n.'la: 'ágonlaa	'You sg. made something'	pʃ n.n.'zí: biʃ nnzí	'You got sleepy'

Syllable structure

The possible arrangements of consonants and vowels differ depending on the morphology of a sequence. Within stems, syllables may be CV, CVC or CV:C, and any consonant may begin a stem. Word-final consonants are limited to /ʔ/, /l/, /ʎ/, /ʃ/, /h/, /s/ and /n/.

When prefixes are added to a stem, clusters may occur which begin with /t/, /ʔ/, voiceless fricatives, and the nasal /n/. /n/ may occur between /t/, /ʔ/ or /n/ and any stem-initial consonant.

Syllabification patterns for some clustering words are shown in (13). (We are indebted to Lester Sandoval for his assistance with this part of the inquiry.) Native speaker opinion seems to converge on the following syllabification choices: verbal and nominal prefixes with the shape /n/ form syllables with following consonants in the configuration NC.C. When /n/ occurs alone before a stem-initial consonant, it still forms a syllable of its own. When it is preceded by another prefix consonant, it is sometimes judged to form a syllable, but sometimes not. Word-finally, /n/ optionally forms part of a syllable with a preceding vowel. In short, the /n/-shaped prefixes which Apachean convention regards as ‘syllabic’ are judged by the speakers consulted to form syllables with following consonants, but not with preceding consonants or vowels. The judgments are somewhat variable in the complex cases.

(13) Syllabification examples

to: já.n.tʃé.té	doo yánehéde	‘Shut up’
ń.n.ʃé, ńn.ʃé	ńshé	‘You sheared it’
n.mó.ʃa	nmósha	‘Your cat’
mó.ʃa ʃa ńł.kʰe:	mósha sha ńłkee	‘Give me the cat’
nʃ.tá.ʒa	nshdázha	‘Your younger sibling’
ʔi.ku.ʔá.ń, ʔi.ku.ʔáń	’igo’áń	‘Hole’

Generally, when an ‘extra’ syllable is judged to exist, the judgment is being made on the basis of knowledge of alternate pronunciations for the same word: if a syllable exists in one pronunciation, it is always judged to exist, even when pronunciations vary. The Jicarilla writing system does not notate potential syllabicity by including a vowel, as the Navajo writing system does, for these varying morpheme shapes. This fact may affect the judgments of the speakers consulted.

Stress

Stress is heard on verb and noun stems, and tends to fall on the last member of a compound made up of more than one stem. Stressed syllables in the text below have longer vowels than unstressed syllables, and low-toned vowels are higher in pitch when stressed. High-toned vowels are not higher in pitch when stressed. Loanwords receive high or falling tone on the syllable stressed in the donor language. Stressed syllables may also be characterized by more distinct pronunciation of initial consonants: glottal stops are longer and more likely to have full closure in stem-initial position.

Intonation in the text

The recorded reading of the text provides a glimpse of intonation and prosody as used in Jicarilla Apache. Most striking is the amount of final lengthening: utterance-final consonants and vowels (usually sentence-final in this text) were much longer than other comparable segments. Fundamental frequency was not much manipulated in the formation of phrases: low-toned syllables were slightly higher in pitch when phrase-initial, but the difference was slight. Otherwise, tones remained fairly stable across the phrase. Notice, however, that phrases in this story-telling register often end with a particle ná ‘so they say’, which serves a discourse-level purpose in shaping

the story. This particle, along with the connective *ʃí*: ‘and’, carry lexical high, sometimes extra-high, tones but are placed at the ends of clauses, so to the extent that intonational phrases line up with sentences and larger discourse units, high tones will not be observed to drop at the end of an intonational phrase. Even given all this, the lack of participation by low tones in phrasal shaping is still unexplained, and more research will be necessary to figure out how tone and intonation interact in this language.

The North Wind and the Sun

IPA transcription

náha:kʰo'se: jija'ʃí: nʌtʃʰiʔí: ʃí: 'tʃóna'ʔéj
 náha:kʰo'se: jija'ʃí: nʌtʃʰiʔí: ʃí: 'tʃóna'ʔéj sa jeʔʰi'ká ʃí: íʔó'dzi ná. ázǐ:sargó,
 ha'ʔnʌ ts'í na:ʔyo'ʔí: táʔkʰo tɪdɛ́ nʌkʰe:ná'ti:tá:jʔí:, án kʰo'ʃi: i'káʔ ná. é
 n'tsʰa:ʔi: si'to'ʔi: jeʔsi'já ná. ha'ʔnʌ: ʔa'ʔi'ʔe'ʔi: ji'kʰá: i'ʔʃ'í:ʔ te:ʃ'ʔáʃ ná,
 haʔnʌ: ts'í'tá: na:ʔwo'ʔí:, tɪ'dɛ́ íta:i'ʔtɛ́go aji'lɛ́. táʔkʰo ɔ:'ʃí: náha:kʰo'se:
 jija'ʃí: nʌtʃʰiʔí:kó ts'í'tá: mijenágozi ná, to: n'ta:tɛ́: nʌjoʔko éote'ja ná, tsʰɛ́
 nta neʔnɪl ná, no:ʃ'tʃʰí: nda ji'tsís ná. náha:kʰose: jija'ʃí: nʌjoʔ'ʔí: ts'í'tá:
 mijaoja:'zigo ná. nʌ'k'á:s ʃí: nʌ'ʔʃʰí:kó, tó: n'ta:tɛ́ nʌjoʔko éote'ja: náta tɪn,
 nʌkʰe:náti'tájn, mɪ'ʔéhti: gé k'e:nej'te:s tsɔs ná, já sizí. táʔkʰo:ná:, 'tátʃ'ɛ́
 á:t'ín, ayáj nʌtʃʰiʔí: náha:kʰose mija'ʃí nʌtʃʰiʔí: táʔko'ná: tákó:'to:jé
 tʃóna'ʔéj háná:tá. á'tá, kó:s'tó:jé si'lí tá á'ʃí: to nʌjoʔ si'lí ta, tɪ'dɛ́
 ítaaʔa'ʔe: táʔkʰo'ná:ʔ náha:kʰose mija'ʃí: nʌtʃʰiʔí: mita:tso ná, tʃóna'ʔéj
 mí:'zo ná, mí'ʔa:jé na:ʔyó ná, é:ná.

Jicarilla orthography

Náhaakosee yíyaashí nʌchi'íi shíí Jóónaa'ái
 Náhaakosee yíyaashí nʌchi'íi shíí Jóónaa'ái saa ye'ligá shíí íʔódzii ná. Áázǐisaagó,
 ha'ʔnʌ ts'í naaʔwo'íi. Dá'ko didé nʌkeenáidiá'íi, án koshí igáʔ ná. É ntsaa'íi siido'íi
 ye'siyá ná. Ha'ʔnʌ'íi gha'íide'íi yíiká ích'i' deesh'ásh ná, ha'ʔnʌ ts'íidá naaʔwo'íi,
 didé ídaa'íldégo ayíilɛ́. Dá'ko ooshí náhaakosee yíyaashí nʌchi'íigo ts'íidáá miyeenágozi ná,
 doo nádaadé nʌyoʔgo éodeyaa ná, tsé nda nainil ná, nooshchíi nda yiidzíz ná. Náhaakosee
 yíyaashí nʌyoʔ'íi ts'íidáá miyeoyaaazigo ná. Nʌk'áás shíí nʌchi'íigo doo nádaadé nʌyoʔgo
 éodeeyaa. Nda dín, nʌkeenáidiidáin, mii'éhdií gé k'eenáidees tsos ná, yá siizí.
 Da'koonaa' dách'eh áát'íin, aghai nʌchi'íi, náhaakosee miyaashí nʌchi'íi. Da'koonaa'
 dágo'ódooyéé Jona'ái hánáát'á. Adá, goosdóoyéé siilí dá, áshíi doo nʌyoʔ siilí da, didé
 ídaa'aaaldee. Dá'konaa' náhaakosee miyaashí nʌchi'íi mii'daadzo ná, Jóónaa'ái míizo ná,
 mii'aayé naaʔwo ná, éiná.

Translation of the Jicarilla version

The north wind (the wind from under the north) and the sun (the one who goes around by day) were arguing about which of them was the strongest, so they say. A man, a wanderer, was walking nearby. He had on a big warm coat, they say. They wagered together: whoever could make the man take the coat off, that one was the strongest. So then the north wind got very angry, they say, and made himself extremely windy. He even scattered rocks and uprooted trees. As the North Wind grew angry, it was cold; he made himself very windy. But this one, the traveler, he just pulled his coat around him, standing up to it, so they say. Then in vain the wind was working, that wind from under the north. Finally it got hot: the sun came out. It got warm, and it was not

windy. The traveler stripped off his coat. So in the end the north wind lost. The sun won, he is the stronger. So they say.

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