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An Inroductory Paper on the Tiwa Language, Dialect of Taos, New Mexico

BY
JOHN P. HARRINGTON
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## AN INTRODUCTORY PAPER ON THE TIWA LANGUAGE, DIALECT OF TAOS, NEW MEXICO ${ }^{\text {I }}$

By JOHN P. HARRINGTON

$\mathrm{N}^{\mathrm{o}}$fact better illustrates the present fragmentary condition of our knowledge of American aboriginal languages than that the tongues of the Pueblo Indians of the southwestern United States have until now remained uninvestigated. Powell in his Indian Linguistic Families of America, published in 1891, ${ }^{2}$ is forced to base the classification of these languages on a few manuscript vocabularies collected in a haphazard manner by various persons at various times. These vocabularies are at present deposited in the archives of the Bureau of American Ethnology at Washington. The unreliable character of these records and of any classification based on them is best appreciated by one who, like the writer, has had opportunity to compare them directly with the spoken languages. More recently a few Pueblo texts have been published. We possess a specimen of the language of Isleta pueblo recorded by Gatschet, ${ }^{3}$ a rendering of some Christian hymms and doctrines in the Laguna language by the missionaries Bercovitz and Paisano, ${ }^{4}$ and a record of several Zuñi songs made by Mrs. Stevenson. ${ }^{5}$

No study of the phonetics or structure of any of the Pueblo languages was however attempted, as far as we know, previous to the investigations which have been conducted during the past two years by the School of American Archæology under the Archæological

[^0]Institute of America. Under the auspices of this School the author of the present paper has since July, 1908, been engaged continuously in a study of the group of obviously related languages spoken in the Rio Grande drainage area of New Mexico which Powell has termed the Tanoan. ${ }^{\text { }}$

## The Tanoan Languages and Taos Pueblo

In the area drained by the Rio Grande which is now known as northern and central New Mexico there are at present eighteen Indian Pueblos. We follow the Indian custom in enumerating these villages, beginning with those farthest north or northwest: Taos, Picuris, San Juan, Santa Clara, San Ildefonso, Nambe, Pojoaque, Tesuque, Cochiti, Santo Domingo, San Felipe, Jemez, Sia, Santa Ana, Sandia, Isleta, Laguna, Acoma. In addition to these should be mentioned Pecos pueblo, located on the Rio Pecos and abandoned in 1837. There are at Jemez a few aged persons who still retain a knowledge of the dialect of Pecos. Four villages whose inhabitants migrated from this area in historic times should also be included here. These are: Senecú, Isleta del Sur, and Socorro, established at the time of the Pueblo Indian revolt of 1680 south of the present city of El Paso, Texas, and Hano, founded in 1700 beside the Hopi villages of northeastern Arizona.

The speech of each pueblo is practically a unit, variations presented by division, clan, family, or individual being here ignored; but no two of the pueblos have the same dialect, although the degree of linguistic diversity varies greatly.

Omitting Cochiti, Santo Domingo, San Fclipe, Sia, Santa Ana, Laguna, and Acoma, seven villages whose language forms a close unit and has been called Keresan, our preliminary survey leads us to suggest the following classification of the dialects of the remaining pueblos.
A. Tiwa language :
(I) Taos and Picuris dialects.
(2) Sandia, Isleta, and Isleta del Sur dialects.

[^1](3) Piro dialect:
B. Towa language :
(I) Jemez dialect.
(2) Pecos dialect.
C. Tewa language :
(i) San Juan, Santa Clara, San Ildefonso, Nambe, Pojoaque, Tesuque, and Hano dialects.
The dialects of Sandia, Isleta, and Isleta del Sur have for three centuries been known to the Mexican population of the region by the name Tigua, obscure in origin. A more continental spelling is Tiwa. The term Tigua or Tiwa has also become commonly applied to the closely related idioms of Taos and Picuris. In a recent paper, ${ }^{1}$ the writer suggested that the use of this name be extended still more widely to include the Piro dialect. Thus all the dialects of group A would be designated as Tiwa.

It was also suggested that the dialects of group $B$ be known as constituting the Towa language, since the term tôwa, meaning " native," is applied by the Jemez and Pecos to their own language.

The language of group $C$ with its numerous village dialects is known to both Indians and whites as Tewa, this being the word in that language equivalent to Jemez and Pecos tôwa and likewise meaning "native."

Thus we recognize three languages, Tiwa, Towa, and Tewa. The diagram on the following page shows the relative sizes and positions of the areas occupied by these three languages at a period soon after the coming of the whites.

Roughly speaking, the languages still obtain in the areas in which they were then spoken, the Piro dialect of Tiwa forming a notable exception. Piro was formerly spoken in the country immediately south of that held by the ancestors of the Sandia and Isleta. During the eighteenth and nineteenth centuries the dialect was heard only in the neighborhood of El Paso, and is probably now extinct.

The population of Taos like that of the other pueblos is composite in origin. Tradition states that long ago a number of

[^2]clans speaking various languages confederated to form the Taos people, and that this people throughout its subsequent history in times of war and peace has grown by adopting individuals or groups of individuals speaking alien tongues. Generations ago, it is said, very many Ute Indians were incorporated into the Taos tribe as the result of a war. Probably such tradition faithfully reëchoes the

prehistory of Taos. It is certain that the village has long been the melting pot of peoples and that these peoples spoke various languages. The conquering and surviving tongue is Tiwa, a Tanoan language.

Taos Tiwa exhibits considerable divergence from the Sandia-Is-leta-Isleta del Sur variety of the language, perhaps indicating long scparation. An Isleta man who recently visited Taos preferred to conduct his conversation in Mexican jargon, fluent speech in the dialect of Taos being quite unintelligible to him. And yet com-
parative study reveals the closest relationship between the two dialects. When Taos and Picuris people talk together, Tiwa is used, these two dialects differing as little from one another as do the dialects of the Tewa pueblos. Piro possibly differed as widely from each of the other subgroups as these differed from each other.

A comparative study of the three languages will prove most interesting. Tiwa, when compared with the adjacent Tewa, appears to represent both phonetically and structurally a more archaic form of Tanoan speech. In fact, the relation of Tiwa to Tewa seems not unlike that which Von der Gabelentz would have us believe Tibetan bears to Chinese. Final consonants still retained in Tiwa, have in Tewa decayed or disappeared. Thus Taos nam-, Tewa $n a^{n}$, earth. Diphthongs prominent in Tiwa appear to have become in Tewa simple vowel sounds. Thus Taos sớăn-, Tewa se $e^{n}$, man. Open vowels in Tiwa are generally represented in Tewa by close vowels. Thus Taos $p a$, Tewa po, thigh. The tongue-raised vowels of Tiwa exhibit in Tewa less raising of the tongue. Thus Taos $t^{\circ} \ddot{0}$, Tewa $t^{\circ} a$, to live. Many formative elements which may not be omitted in Tiwa do not make their appearance in Tewa at all. Thus Taos ' $\hat{a}^{n} m \ddot{a}^{n} h \ddot{u} \check{a}$, Tewa ' $u^{n} m \ddot{a}^{n}$, you two are going; Taos sō̃ă näua, Tewa $s e^{n}$, man. A Tiwa sentence when translated into Tewa usually contains fewer sounds and fewer syllables and requires less strenuous motions of the organs of speech.

A marked musical accent has developed in Tewa, possibly as an accompaniment of some of the monosyllabic tendencies described above. This accent is as noticeable and, to the understanding of many words, is as indispensible as are the "tones" of Chinese. For example, the cognates of Taos $p^{\prime} a$, moon, $p a \check{a}$, trail, and $p^{\prime} \hat{a}$, water, are respectively Tewa $p^{\prime} 0$, moon, $p^{\prime} o$, trail, and $p^{\prime} o$, water, distinguishable by their musical pitch only. The vowels of the three Tewa words seem identical in quality, length, and stress. The difference lies in the musical pitch, which in $p^{\prime} 0$, moon, is high; in $p^{\prime} 0$, trail, is lower ; in $p^{\prime} o$, river, is low and falling. Such pitch accents of Tewa words are difficult for the foreign ear to recognize ; it is almost impossible for adult foreign organs, to correctly reproduce them. Musical accent is present in Tiwa, as it is in all languages, but is not noticeable and in no case appears essential to the
interpretation of a word. The writer knows of no other American language in which features saliently characteristic of Chinese are developed to such a remarkable extent as in Tewa. There are many tendencies in language, and those which result in monosyllabism are as yet imperfectly understood. The Tanoan languages offer a promising field for the study of the growth of these tendencies.

Among various other developments characteristic of Tewa which have not been discovered in the other Tanoan languages, ablaut deserves mention here. Ablaut appears in Tewa noun and adjective elements. Three series occur: $u-e, u^{n}-e^{n}, a-i$. The $u, u^{n}$, or $a$ grade indicates large objects; the $e, c^{n}$, or $i$ grade indicates small objects. Examples are: hu, arroyo, he, arroyito; $m b u^{n}$, big bend, mben, little bend; $p^{\circ} a g i$, large and flat, $p^{\circ} i g i$, small and flat. Prolonged search has failed to reveal any similar phenomenon either in Tiwa or Towa.

The German linguist Von der Gabelentz mentions an invention of ablaut in the baby-talk of his little nephew which forms a striking parallel to the Tewa usage. This child expressed itself largely in a language of its own making. Lakail was the name applied to an ordinary chair, lukull meant great arm-chair, likill was used to signify little doll's chair. Again mem was the word for watch or plate, mum referred to a large plate or a round table, mim was the name for the moon, while mim-mim-mim-mim meant stars. ${ }^{\text {. }}$

The Towa language of Jemez and Pecos, as judged by some of its developments, appears to hold a position intermediate between Tiwa and Tewa.

Inasmuch as Tiwa is apparently the most archaic of the Tanoan group as well as the simplest phonetically considered, an outline of that language is here presented, the dialect of Taos having been chosen. The Taos, as is usual, consider themselves superior to all other Indians. They have infinite disdain for their southern neighbors, the Tewa, who are regarded as having perverted customs and as speaking a degenerate form of the Taos language. They pride themselves especially on occupying the highest and most northerly of all the Pueblo villages, and the tradition that the Pueblo Indians migrated originally from the north is so impressed upon their minds

[^3]that this location alone seems to them sufficient proof that they are the most pristine and uncorrupted of Pueblo villagers.

Taos Indians usually speak of their pueblo as $T \tilde{\partial} a t^{\circ} a$ when they are in or above it. When below the village $T \check{o \partial a} b \hat{a}$ is used. $T \check{\partial} \check{d}$ is the equivalent of Tewa $t e$, houses, village ; the affixes have locative force. It is said that an old name of the village is 'Iata$p^{\circ} \vec{a} t^{\circ} a$ or ' $\breve{a} a t a p^{\circ} a ̆ a b \hat{a}$, meaning the place of the red ( $\left.p^{\circ} a \hat{a}\right)$ willows (' $\ddagger a \not \partial a$ ). The people of Taos commonly call themselves Tö́a $t^{\circ} a$ $t ' a l n \ddot{a} m a^{n}$, signifying literally the people who live at the village. The form Taos is perhaps a Mexican corruption of tơă-.

The Taos informants were three in number: Manuel Mondragon, José Lopez, and Santiago Mirabal. Most of the material was obtained from the informant first named. His Indian name is Töltö, Sun Elk. He is a patient fellow and is deeply interested in the recording of his language.

## Phonology

## General Phonetic Character

The impression which the Tiwa language makes on the ear is smooth and pleasing. There are no harsh consonants and no combinations of consonants except those caused by elision. The stops are gently exploded. The sounds $l, m$, and $n$ are frequent. The oral vowels are clear and sonorous. The orinasal vowels have little of the unpleasant nasal resonance which results when the velum is drawn far forward. There is little in the pronunciation which reminds one of the tense, impure vowels of Towa; of the choking sounds, excessive nasalization, and remarkable development of musical accent which characterize Tewa; of the coarse, crackling, half voiced quality of Keresan ; or of the voiced and unvoiced mixed vowels prominent in Ute and in some other Nahuatlan dialects.

## The Individual Sounds

It apppears that the Taos distinguish in their speech eleven vowels and twenty-five consonants, making in all thirty-six etymologically distinct individual sounds. These sounds vary considerably according to their setting. Yet with a little practice they can be recognized by the speaker of a European language even when run together in rapid speech, and can be readily imitated.

The vowels are presented in the customary form of the vowel triangle. The contact positions of the consonants are given in the order in which these are visited by the exhaled breath. Beside each sound stands in parenthesis an Indo-Germanic word containing a nearly equivalent sound.

Vowels
Orinasal vowels:

$$
\mathrm{a}^{\mathrm{n}} \text { (Fr. angle, angle) }
$$

$\ddot{a}^{\mathrm{n}}$ (Fr. dindon, turkey) $\hat{\mathrm{a}}^{\mathrm{n}}$ (Fr. dindon, turkey)
$i^{\mathrm{n}}$ (Skt. raçmīinr, rays) $u^{\mathrm{n}}$ (Skt. sūñiur, sons)
Oral vowels:
a (Eng. father)
$\ddot{a}$ (Fr. là bas, down there) $\hat{a}$ (Fr. là bas, down there)
$i$ (Eng. machine)
u (Eng. rule)

## ö (Ger. schön) <br> Consonants

Semi-vowels :
j (Eng. hallelujah)
w (Eng. azuay)
Larynx consonants :
, (may open Eng. vowels beginning words)
h (Eng. how)
Back of tongue consonants :
k (South Ger. katzc, cat)
k' (Eng. took 'off)
x (Ger. ach)
$g$ (Eng. $g \mathrm{o}$ )
$\mathrm{k}^{\mathrm{n}}$ (Eng. quarter)
$x^{\mathrm{u}}$ (North Eng. zellat)
Front of tonguc consonants :
$t$ (South Ger. tag, day)
$t^{\prime}$ (Ėng. hat off)
$t^{0}$ (Eng. sweat-lhousc)
d (Eng. do)
$\mathrm{t}^{3}$ (South Gcr. zahn, tooth)
$t^{3 \prime}$ (Eng. hats off)
s (Eng. so)

1 (Welsh llai, clay ; Eng. pathless)
1 (Eng. love)
n (Eng. now)
Lip consonants:
p (South Ger. poet, poet)
p' (Eng. cap off)
$\mathrm{p}^{\circ}$ (Eng. shee $p$ - $h \mathrm{orn}$ )
b (Eng. boy)
m (Eng. man)
Voiced and voiceless sounds are not as clearly distinguished as in English.

The orinasal, i. e., mouth-nose, vowels are pronounced with the velum hanging freely as when one breathes through mouth and nose simultaneously. In their production the voiced breath escapes through both mouth and nose. The calls of the lower mammals are most frequently orinasal. The birth-cry of the human babe is $\ddot{a}^{n}$, and a similar sound is heard in the groaning of the adult. Vowels of this class are very numerous in Tanoan.

The oral vowels are produced with the velum drawn toward the rear wall of the pharynx so as to allow little or none of the voiced air to escape through the nose. The sound $\partial$ has no counterpart among the orinasal vowels. It resembles weakly rounded German $\ddot{0}$. It sounds like the "impure vowel" of Shoshonean dialects which has been variously written $\ddot{0}, \ddot{o}, \ddot{u}, \ddot{u}$.

Vowels are accompanied by much breath, especially at the close. Vowels following $h, x, t^{\circ}$ and $p^{\circ}$ are more breathy than others. A special series of aspirated vowels has not been detected.

A voiceless vowel of the quality of $a^{n}$ results when $a^{n}$ is most completely elided within a sentence.
$J$ and $w$ differ from $i$ and $u$ respectively only in being much shorter. They have no more fricative quality than do the vowels which they resemble.

The explosion produced by closing and then suddenly opening the glottis is one of the commonest sounds in the languages of the world. This sound is heard in coughing and grunting. In English it may occur as an opener of vowels commencing a word. It is unnaturally audible between the words at and all in a current affected
pronunciation of the phrase at all which distinguishes at all from a tall. This sound may be called the glottal catch or the glottal stop. In Taos it is slightly audible before all syllables which do not begin with any other consonant. It also combines with $k, t, p$, and $t^{\prime}$ to form $k^{\prime}, t^{\prime}, p^{\prime}, t^{\prime \prime}$, described below. It is not heard as a vowel closer.

The consonant $h$ is a weak whisper caused by glottal narrowing. It has the timber of a contiguous vowel or vowels.

There are five series of mouth stops: (1) weakly voiced, $k, t, t^{\circ}$, $p$; (2) with simultaneous closure of the glottis, $k^{\prime}, t^{\prime}, t^{\prime \prime}, p^{\prime}$; (3) with following aspiration, $t^{\circ}, p^{\circ}$; (4) with simultaneous $u$ position, $k^{u}$; (5) weakly voiced with long and firm contact, $g, d, b$. There is perhaps still another series, - long and firm $k, t, p$, which have been observed only as a result of the elision of the syllables $g a^{n}, d a^{n}, b a^{n}$ respectively. There are indications that the fricative continuants $x$ and $x^{4}$, now lacking complete closure, are respectively derived from earlier $k^{\circ}$ and $k^{\circ n}$, thus making series (3) and (4) more complete; see below. However, $g a^{n}$ occasionally assumes the form $x u$, suggesting a comnection between $x$ and $g$.

The stops $k, t, t^{\prime}, p$ are very gently exploded as in South German ; ${ }^{1}$ voice apparently does not cease and is prominent sooncr after the explosion than in the case of English $k, t, p$. The spellings $k g, t d, p b$ would suggest the character of the sounds.

In pronouncing $k^{\prime}, t^{\prime}, t^{\prime \prime}, p^{\prime}$ a closure of the glottis seems to occur simultaneously with the assuming of the stop position by the organs of the mouth. The larynx is then slightly raised, compressing the air between the glottis closure and the mouth closure. As a result of the formation of this small chamber of compressed air the mouth explosion when it occurs has slight force and differs in acoustic effect from a mouth explosion the air pressure of which is produced directly by the lungs. A slight explosion in the larynx resembling the ordinary glottal stop described above follows immediately after the mouth explosion. Some of the makers of Tiwa vocabularies have omitted to write initial $k^{\prime}, t^{\prime}, p^{\prime}$. They probably heard only the larynx explosion or glottal stop, which as elsewhere

[^4]they neglected to record. Thus " $\hat{a}$," water, instead of $p$ ' $\hat{c}$. A similar series of stops existing in the Mayan languages of Mexico and Central America have been termed "letras heridas," wounded letters. Perhaps the "fortes" and "velars" of some other American languages are in reality such sounds. The Georgian language of the Caucasus possesses stops which sound exactly like these of Tiwa. The nearest English approximates are contained in such combinations as took off, hat off, hats off, cap off, when the vowel of the second word is opened by the glottal stop. A good name for the consonants of this series would be grunted stops.
$T^{\circ}, p^{o}$ differ from $t, p$ respectively by being accompanied by more breath. They are not harsh sounds, but the breathy glide following the explosion is very audible. The sign ${ }^{\circ}$ is adopted from Bell's Visible Speech.

As remarked above, $x$ seems to belong to this series, but is now a continuant resembling German ch. The corresponding Tewa sound is $k^{\circ}$. Tewa may here be more retentive than Taos. If it should be proved that Taos $k^{o}$ has become $x$ while $t^{\circ}$ and $p^{\circ}$ have remained unchanged, the development is paralleled in classic Greek, in which it is believed $\%$ became a continuant earlier than $\operatorname{did} \theta$ and $\varphi$.
$K^{x}$ and $x^{u}$ are single sounds, being simultaneous pronunciations of $k$ and $w$, and $x$ and $w$ respectively.
$G, d, b$ have long, firm closure as in English. When $g a^{n}, d a^{n}$, $b a^{n}$ are elided the resulting $k, t, p$ have this same kind of closure but less voice, although they have been written in this paper exactly like the $k, t, p$ of different quality and origin.
$S$ and $t$ are often weakly voiced. The $s$ position is with tongue touching the upper side teeth and gums, allowing breath to escape across the front teeth. The $t$ position is in a way the reverse of that of $s$. The tongue is pressed against the upper front teeth and gums, but lets breath escape across the side teeth. Usually more of the sound is produced at one side of the mouth than at the other. The sound resembles Welsh $l l$, less closely English thl. It has usually been written $s$ by vocabulary makers. In Tewa, both Tiwa $s$ and $t$ are represented by a single s-like sound.

The contact of $l, n, m$ is long and firm.

## Phonetic Processes

The Tiwa syllable consists of a consonant plus a vowel or diphthong. Syllable-closing consonants and apparent combinations of consonants are due to elision ; sec below.

Combinations of vowels are, however, frequent. Peculiar diphthongs are largely responsible for the strange impression which the language makes on our ear. Each Taos diphthong consists of two rapidly uttered and equally stressed vowels so welded together as to form a single syllable. The duration of the diphthong is not greater than that of an undiphthongized vowel. Therefore in writing these diphthongs a breve has been placed over each of the constituent vowels. The chief difference between Taos diphthongs and those of Indo-Germanic languages seems to be this, that in the former each of the vowels is pronounced with equal force, while in the latter one element invariably bears greater stress than does the other. The majority of the Taos diphthongs admit of no analysis into simpler morphological elements, but correspond as wholes to simple, undiphthongized vowel sounds in the Towa and Tewa languages, in which no diphthongs are known to occur. Compare Taos tuab, Tewa $s u$, arrow ; Taos p'ü, Towa p'e, mountain. An examination of words borrowed by one Tanoan language from another, mostly personal and place names, makes it seem probable that the diphthongs of Taos Tiwa are not the result of recent vowel-breaking or of combinatory processes, but are rather a feature of archaic Tanoan speech preserved in Tiwa. The development in Towa and Tewa would be comparable to that which rendered the Slavic languages of the Indo-Germanic stock diphthongless. A few of the Tiwa diphthongs, however, clearly originate in a juxtaposition of vowels occasioned by the grammatical processes of the language. Thus 'tü $m u^{n}$, they $3+$ animate them $3+$ inanimate saw. But one is also permitted to say 'iu mun'. The following diphthongs occur



Taos syllables are pronounced with force so nearly equal that stress accent has not been indicated. Musical accent is probably of even less importance than in English.

Like other speech, that of Taos is slurred or elided. There lives
at the pueblo a man of French and Mexican descent who has a good knowledge of the language, but as often as he speaks it the Indians are greatly amused, chiefly it is said because he does not elide correctly.

The law of elision requires that the syllables $j a^{n}, w a^{n}, x a^{n}, g a^{n}$, $d a^{n}, l a^{n}, n a^{n}, b a^{n} m a^{n}$ appear only before a pause, usually only at the end of a clause or sentence. Within clauses and sentences they assume respectively for reasons which further study must explain either the forms $j u, z v u, x u, x u, d u, l u, m u, b u, m u$, or $t, u, k, k, k, t, l$, $n, p, n$. It should be noted that $a^{n}$ of all the vowels most nearly approximates the Tiwa articulatory basis, and that a non-syllabic unvoiced vowel of the timber of $a^{n}$, which has not been written, can be perceived after most completely elided forms of these syllables. The $u$ forms are remarkable. This law gives rise to all final consonants and groups of consonants.

Ablaut or other regular vowel modification has not been observed except perhaps in the case of the elided elements just referred to.

Rapidly pronounced vowels differ in quality from the normal vowels of careful speech. They are apt to imitate the timber of vowels of contiguous syllables. This phenomenon is known as assimilation. Assimilation of consonants is heard even in slow speech. Thus by progressive assimilation, $t^{\circ} \dot{\partial} \| t^{\circ} a$, for $t^{\circ} \ddot{\partial} m t^{\circ} a$, where she lived; by retrogressive assimilation, ' $a^{n} n n i \neq a t^{\circ}$ ŏd $m a^{n}$, for ' $a^{n}$ n zuila to $0 \dot{\partial} \dot{a} m a^{n}$, they 2 went to get wood, it is said.

Dissimilation of reduplicated syllables is presented in trititi, make a $s$-s-s sound.

An interesting permutation of consonants is the replacement of $k, t, t^{\prime}, p$ by $k^{\prime}, t^{\prime}, t^{\prime \prime}, p^{\prime}$ respectively in certain verb forms. This. suggests how such forms as Nahuatlan $p a$ and Tanoan $p^{\prime} \hat{a}, p^{\prime} 0$, water, may be related.

Reduplication is very seldon resorted to by the language. Only three reduplicated forms were encountered in the material collected. These are: xulxulta, 'ana, round dance (ta,' $a n a$, dance); $t^{t \prime} a l t^{\prime \prime} a l^{\prime} \tilde{a}^{n} u a$, rattle; $t^{*} i t i t i$, make a s-s-s sound. Repeated activity is denoted in each case.

## Morphology

## Roots and Affixes

Tiwa like other languages is an exceedingly complex structure built of more or less firmly agglutinated elements. These elements are the units of the structure of language. Psychology discovers in the element a bundle of associations; physiology, a succession of movements and positions of the speech-organs; physics, a complex of sound waves. Morphology, the study of linguistic structure, regards the element as the molecule of language, and does not attempt to analyze it.

It is convenient to apply the term root to the significant, clusteroriginating element or elements, and to designate as affixes other elements of a cluster the function of which is modificatory or associative.

In the Tiwa language the morphological element is usually a syllable, that is, a consonant plus a vowel or diphthong. Occasionally two elements combine to make a syllable, or two or more syllables constitute a single element.

The process of combining root elements with other root elements is known as compounding. The process of combining root elements with affixes is known as affixing.

Tiwa compounds are of three types: (1) noun + noun ; (2) noun + verb; (3) verb + verb. Letting $n$ stand for noun, $v$ for verb, all Tiwa compounds are represented by the formula $n \pm n \pm n \pm n \pm v$ $\pm v \pm v \pm v$. Formative affixes never stand between the roots compounded. The compound behaves precisely as if it were a single root. The meaning of the compound often differs from that of either of the component roots, compounding thus becoming a fruitful means of enlarging the vocabulary.

Affixes may be distinguished by their position as prefixes, infixes, and postfixes (suffixes). Tiwa root elements are commonly modified by postfixes and prefixes; infixes do not occur.

## Two Parts of Speech

Two kinds of root elements, or in other words two parts of speech, are distinguished. These are with their Taos names: (i) $x \hat{a}^{n} n a ̈ m a^{n}$, the noun root; (2) $t u^{n} \cdot u^{n} n a$, the verb root. Nouns,
some adjectives, pronouns, adverbs and conjunctions may be roughly assigned to the former class ; verbs, some adjectives, and interjections belong to the latter. English adverbs, prepositions, and inflexions are largely expressed by affixes. Some elements may be employed, with different affixes, both as noun and verb roots.

```
\(X \hat{A}^{n} N \ddot{A} M A^{n}\), THE NOUN ROOT
Gender, Number, and Case
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Gender, number, and case may find formal expression in the affixes of the noun, in the pronoun, or in processes of compounding.

Animate and inanimate gender is distinguished by noun terminations, or by pronoun elements prefixed to noun or verb, or may be unexpressed.

Singular and $2+$ plural number is indicated by noun terminations; either singular and $2+$ plural, or singular, dual, and $3+$ plural number may be indicated by pronoun elements prefixed to noun or verb. When a noun is not the last member of a compound, its number cannot be expressed by means of noun terminations.

Subject-case denoting subject, object case denoting object, and referential case denoting less intimate relation between noun and verb are expressed partly by the presence or absence of noun terminations, partly by noun + verb compounding, chiefly by pronoun elements prefixed to the verb.

## The Noun

The Taos noun is under certain syntactic conditions accompanied by a postfix which we call a noun termination. The postfix renders the meaning more demonstrative and emphatic, frequently defines gender as animate or inanimate, and indicates number as singular or $2+$ plural. The verb construed with a noun often distinguishes singular, dual, or $3+$ plural.

A noun must be accompanied by its termination except under the following conditions, when the termination must be omitted.
(I) If the noun is used as a proper noun, animate gender. Thus with terminations sing. kỗă $n \alpha$, plu. kö́ă nä $m a^{n}$, bear, a bear, the bear ; without terminations sing. köa, plu. köd, Old Bear, Bruin. With terminations sing. $p^{\prime} \hat{a} j \hat{a} n a$, plu. $p^{\prime} \hat{a} j \hat{a} n a^{n}$, beaver, a beaver,
the beaver; without terminations sing. $P^{\prime} \hat{a} j \hat{j a}$, Beaver, name of a Taos Indian.
(2) If the noun is used as the not last member of a noun + noun compound. Thus uncompounded with terminations sing. kóă na, plu. köă nä man", bear; sing. t'al na, plu. t'at nä man, clan. Compounded with termination of last member only, sing. koja t'at na, bear clan.
(3) If the noun is used as the not last member of a noun + verb compound; thus uncompounded with terminations, sing. kód na 'âmun ja, the bear me saw, plu. kóa nä $m$ 'â $m u^{n} j a$. Compounded with verb root as object without terminations, sing. ti kō̃a mu ${ }^{n}$, him I the bear saw, plu. pikód mun, them I the bears saw.
(4) If the noun is so used that it require some postfix other than the terminations; thus with terminations, sing. kodina, plu. kồa nä $m a^{n}$, bear; with postfix other than termination, sing.
 ' $a^{n} n$ kŏ̆ă zua'inan ${ }^{n}$, my bear. In brief, terminations must be used except with animate proper nouns, nouns used as not last members of compounds, or nouns requiring some postfix other than the termination.

Although there are but few noun terminations, they present as much irregularity as do the gender-number-case endings of IndoGermanic. As distinguished by termination nouns fall into seven classes :
I. Sing. -na, plu. -nä. Many nouns denoting inanimate objects or substances not made by man, especially such as consist noticeably of particles or parts, are included here. Three types of termination distinguished by the manner of postfixation are illustrated by the following nouns: (a) Sing. -na, plu. -nä. Thus sing. hiti na, stone, plu. hutünäa, stones. (b) The vowel in which the noun root ends is repeated plus sing. -na, plu. -nä. Thus sing. $p^{\prime} \hat{a}^{\prime} \hat{a} n a, ~ a$ particle, body, or stream of water, plú. p'a' $\hat{a} n \neq a ̈$, water. (c) Sing. $-(n) \ddot{a} n a$, plu. -(n)ä nä. Thus poa näna, a particle, flake, or crystal of snow ; plu. poa nä nä, snow.
2. Sing. -na, plu. -nä. Nouns of this class signify inanimate objects or substances made by man or by some personified instrumentality. The terminations are the same as those of nouns of
class I and the same three types of postfixation are distinguished; but when a noun of this class is compounded or used without a termination or other postfix the indefinite pronoun element $n a^{n}$ is prefixed. This same $n a^{n}$ is prefixed to verbs; see page 34. Thus sing. $t^{\circ} \ddot{\partial} n a$, house, plu. $t^{\circ} \ddot{\partial} n \ddot{a}$, houses ; but without a postfix sing. and plu. $n a^{n} t^{\circ} 0$, house, houses, as in $n a^{n} t^{\circ} 0 m u^{n}$ (he) saw houses.
3. Sing. $-n a$, plu. $-n a^{n}$. This class includes many nouns designating animals and peoples. There are three types of postfixation as in classes I and 2. As an illustration, type (a) sing. $p^{\prime} \hat{a} j \hat{j} \hat{a} n a$, beaver, plu. $p^{\prime} \hat{a} j \hat{a} n a^{n}$, beavers.
4. Sing. $-n a$, plu. $-n a ̈ \ddot{a} m a^{n}$. In this class are found many nouns signifying human beings and animals, especially those indicating human social groups and animal genera. Three types are distinguished. (a) Sing. $-n a$, plu. $-n a ̈ m a^{n}$. Thus sing. köă na, bear, plu. kốa nä $m a^{n}$, bears. (b) The vowel in which the noun root ends is repeated plus sing. -na, plu. - $n a \ddot{a} m a^{n}$. Thus sing. pŏ̈ö' $n a$, fish, plu. $p \ddot{o} ’ \ddot{n} n a \ddot{m a n}$, fish(es). (c) Sing. -(n)äna, plu. $-(n) a ̈ n a ̈ m a^{n}$. Thus sing. sö̆ nä na, man, plu. sö̃a nä nä $m a^{n}$, men.
5. Sing. -näm $a^{n}$, plu. -na. All that can be said of the nouns which belong here is that they are frequently used in the plural. What appears to be a plural termination is added to the singular ; a singular termination is used in the plural. The verb adjusts itself to the termination, a plural verb accompanying the singular ; a dual verb, the dual ; a singular verb, the plural. Thus sing. tüan nä $m a^{n}$, arrow, plu. tüă na, arrows.
6. Sing. $-n \ddot{a} m a^{n}$, plu. -nä. The usage of these nouns is the same as in class 5. Nouns of this class are rare. Thus sing. $x \hat{a}^{n} n \ddot{a} m a^{n}$, name ; plu. $x \hat{a}^{n} n \ddot{a}$, names.
7. Nouns having one termination only are grouped here. They are collective in meaning. Thus wönä, milk.

Some nouns have more than one plural. Thus I b, sing. tö'ö nä spot, elk, leaf of book, book ; ist plu. tö'önä, spots, leaves of books, books; 2nd plu. tö'önäman, elks. It is explained that both elk and leaf of a book are called thus because spotted.

A noun which is the subject of a verb is never compounded with the verb. Such a noun has its termination except under conditions stated above.

A noun which is either the direct object or the refcrential object of the verb is regularly compounded with the verb. The noun root is then stripped of its affixes. Pronominal elements are prefixed to the compound to give partial expression of gender, number, and person, and to define the relation in which the noun stands to the verb. Thus: ti kôă mun, him I bear saw ; pi kốd mu ${ }^{n}$, them I bears saw. Both direct and referential objects may be compounded, the
 the man he-it-him (' $\hat{a}^{n}$ ) the horse ( $k \tilde{a} \bar{u}$ ) water ( $\left.p^{\prime} \hat{a}\right)$ gives (wiad luiud). See prefixed referential object pronouns, p. 34.

The singular direct object must be compoundid. The plural direct object noun is usually compounded, but may be given the form which it would have if it were the subject, the pronoun elements which accompany the verb defining its case function.

Thus one is permitted to say either pikŏd $m u u^{n}$, them I bears saw ; or kō̆ă nä mu pi mut", bears them I saw. The singular direct object permits only one form : tikğă $m u^{n}$, him I bear saw. The singular or plural referential object may or may not be compounded. Prefixed pronoun elements appearing early in the verb cluster govern and interpret these compounding processes.

Compounding of nouns with verbs, such as has been described, has often been termed incorporation. W. von Humboldt illustrates "incorporation" by the Nahua sentence: compounded or incorporated ni nica qua, I-meat-eat; uncompounded or non-incorporated ni c qua in naca tl, I-it-eat meat. Taos exactly parallels these Nahua constructions: compounded or incorporated, 'âtüd $k$ 'a lan', I-meatate; uncompounded or non-incorporated, 'âk'a lu tüa nä, I-it-ate meat. ${ }^{1}$ Incorporation is a very objectionable name for this process since it refers to noun + verb compounding only, and therefore requires us to resort to other terminology in naming other processes of compounding which are grammatically identical. Noun + verb compounding describes what actually occurs.

Simple and composite postfixes of locative, directional, or relational force are frequently appended to noun elements. A few of these may be used with verb elements also. Examples are :

[^5]$\left.\begin{array}{l}-t^{\circ} a \text { ，in，at } \\ -t a, \text { down in，down at } \\ -n a \text { ，in }\end{array}\right\}$ used with sing．
$-w v a^{n}$ ，in，at，used with $2+$ plu．
－bâ，up in，up at
$-g a^{n}$ ．down in，down at
－pไй，toward in horizontal direction
－piban，up toward
－piga ${ }^{n}$ ，down toward
－pu゙at ta，near
－pйă＇ajan，very near
$-p^{\circ} \downarrow a l g a^{n}$ ，with，denoting accompaniment or association
－tṓ $b \hat{a}$ ，at the side of
$-x a^{n} n \ddot{a}^{n} t^{\circ} a$ ，at the end of
－pŭă $b \hat{a}$ ，at the base of
$-11 a^{n} t^{\circ} a$ ，under
$-n a^{n} m a$ ，under
－wa $n a^{n}$ ，on the side of，on the slope of
－k＇ita，on top of，on（contiguous）
$-k ' \tilde{\partial a} t^{\circ} a$ ，at the surface of
$-k^{\prime} \dot{\partial} a t a$ ，down at the surface of $\}$ used with sing．
$-k ' \partial \check{\partial}{ }^{\prime} a z a^{n}$ ，at the surface of，used with $2+\mathrm{plu}$ ．
$-k ' o ̈ a l a ~ g a^{n}$ ，down at the surface of
－k＇inali，above（not contiguous）
－$t^{\prime} u t t^{\circ} a$ ，outside of
－xö li $m i m a^{n}$ ，around
－$刀$ 保 voan，through
－$p^{\circ}$ a lta，down inside of
－pid nău，between，among
－piăn na，in between，in among
－pta $u t^{\circ} a$ ，between，among
$-b a$ ，with，denoting instrumentality
－hǚju，like
The etymology of $k^{\prime} \hat{\partial} \ddot{a}$ is of interest．The postfixes containing $k^{\prime} \check{o} a$ listed above mean at the surface of，at the top of．The primary meaning of köa is neck．This usage reminds one of the African who says＂house－belly＂for in the house．

## Rendering of English Adjectives

English adjectives are rendered in Taos cither by nouns or verbs. Attributive and predicative constructions are not differentiated.
(I) The adjective.may be regarded as a noun root of generalized meaning. It adds terminations and is compounded like a noun root. Thus ıa sing. $p^{\prime} a x \ddot{n} n a$, shcll, plu. $p^{\prime} a x \ddot{n} n a ̈$, shells; 1 a sing. $p^{\prime} a t^{\circ} \ddot{\partial} n a$, whiteness, plu. $p^{\prime} a t^{\circ} \ddot{\partial} n a ̈$, whitenesses. Compounded Ia sing. $p^{\prime} a x \ddot{p} p^{\prime} a t^{\circ} \ddot{0} n a$, shell whiteness or white shell, plu. $p$ 'axö$p^{\prime} a t^{\circ} \ddot{\partial} \pi \ddot{a}$, shell whitenesses or white shells.

One of these adjectival noun roots could well be called the Taos " diminutive." This is with termination 4 b sing. ' $u$ ' $u n a$, smallness, prettiness, dearness, oldness, small object, small one, etc., child, plu. 'u'u $n a ̈ m a^{n}$. Compounded with the word for bear this gives with terminations 4 b sing. kỗa' $u^{\prime} u n a$, bear smallness, small bear, plu. kồ 'u'n nä ma', bear smallnesses, little bcars. An example of noun + noun + verb compounding is : tikứ ' $u m u^{n}$, I him bear smallness saw, I saw the little bear. This root' $u$ is as common and varies as greatly in meaning as German -chen, -lein.
(2) The English adjective is expressed by various aerb constructions. Beside regular verbs we find the following constructions performing this function: (a) Use of the postfixes ' $i$ or $w a$ ' $i$, denoting possesion, with noun + verb compounds. Thus noun root tö, spot; verb root k'uju, be pretty; compound with possession postfix $t \ddot{\partial} k^{\prime} u j u^{\prime} i$, (he) is pretty having spots, prettily spotted, beside the regular tök'ujuman, (he) is pretty as regards spots. Use of verb roots with prefixed possessive pronouns. Thus verb root ma sö, be glad; 'â n ma sö hŭ, my present gladness or I am glad.

English adjective comparison is sometimes rendered by the free adverbs lat $^{n}$, very, more, most, or ha la, almost, less, least.

## Numeral Expression

The numeral root is used now as a noun, now as a verb. The system is decimal. The numerals 2 and 4,3 and 5,8 and 9 , appear respectively to be etymologically connected. The numeral 6 is said to mean piece, referring to one hand plus one piece or unit. The verb $m a^{n} t i$-means to break or tear to pieces. The

Indians when counting usually begin again with r after ten units have been enumerated. There are, however, words for the tens up to and including one hundred. Numeral classifiers do not occur.

There are several series of numerals in constant use : (I) enumerative, used in counting ; (2) responsive, used in answering ; (3) adjectival, used with nouns, and having endings denoting animate or inanimate gender, and number ; (4) substantival, used as nouns with endings denoting animate and inanimate gender and number; (5) ordinal, used to denote relative position or sequence ; (6) multiplicative, used to designate the number of times ; (7) fractional. Only two fractional numerals are in use; plă nătit, half, and ha lapid nă̈ ti, any fraction smaller than a half. Some of the enumerative, ordinal, and multiplicative numerals are given below.

## Enumerative.

One wän $\mathrm{ma}^{\mathrm{n}}$
Two wi'ina ${ }^{n}$
Three pajüa
Four wiă na ${ }^{\text {n }}$
Five p'a n jūă
Six ma ${ }^{\mathrm{n}} \mathrm{i}$
Seven $t^{8} u$
Eight $\mathrm{x}^{\mathrm{n}} \mathrm{l}$ li
First $t^{t^{3}} u b a^{n}$
Second jiă ba ta
Third păŭ wa ta

Once wiba
Twice wiju
Three times păŭ wi na ${ }^{\text {n }}$

Nine $x^{n-1}{ }^{n} a^{n}$
Ten tän $\mathrm{ma}^{\mathrm{n}}$
Eleven tä ${ }^{n} m$ wä ${ }^{n} \mathrm{ma}^{\mathrm{n}}$
Twenty wi tän
Thirty pa jŭă tä ${ }^{\text {n }}$
One hundred tän tä $^{n}$ or tän $a^{n}{ }^{n} l \ddot{a}^{n}$
One thousand tän $\ddot{a}^{n}$ täan or
tän tä $^{n}$ tän ${ }^{n}{ }^{n}$
Ordinal.
Fourth wĭă nä ${ }^{\text {n }}$ wi ta
Fifth p'an jŭă wi ta
Multiplicative.
Four times wiă nän wi na ${ }^{\text {n }}$
Five times p'a n jŭă wi na ${ }^{\text {n }}$

The Pronoun
There are numerous sets of pronouns. First, second, and third person is always distinguished; a few forms express near, less remote, and more remote third person. In some pronoun sets different forms occur for animate and inanimate gender. Number is either not recognized at all, or singular and $2+$ plural or again singular,
dual, and $3+$ plural is expressed. Subject, object, and referential cases and combinations of these cases find more or less complete expression. Inclusive and exclusive forms for the first person plural are not differently expressed.

Pronoun elements are used with nouns or with verbs.
The sets of pronouns fall into two groups, frec and prefixed.

## Frec Pronouns

Free pronouns stand outside the noun or verb cluster, almost anywhere in the sentence. They are usually in apposition with nouns or prefixed pronouns. They may be used subjectively, objectively, and referentially, and may like nouns be provided with postfixes. They often lend a necessary definiteness to the meaning of the sentence.
(I) The free emphatic personal pronouns may always be omitted without changing the sentence meaning materially. They are common in answer to questions. Person only is distinguished. They are $n a^{n}$, I, me, we, us ; ' $\ddot{a}^{n}$, thou, thee, ye, you; ' $a^{n}$ wan $n a^{n}$, he, him, she, her, it, they, them. When apposite with referential prefixed pronouns the forms $n a^{n} m k i$, 'an' $m k i$ and ' $a^{n}$ vaa $n a^{n} m k i$ may be used. Compare $k i$, postfix of purpose infinitives.
(2) The free demonstrative pronouns express three positions and two numbers. Some of them are : sing. juna, plu. junä man, this; sing. $j a ̈ n a$, plu. $j a ̈ n a ̈ m a^{n}$, that (less remote); sing. $v i d i t$, plu. wâ nä $m a^{n}$, that (more remote).
(3) Examples of free indefinite pronouns are hi, anything, something ; sing. jüa $t i h i$, plu. jüă $n a ̈ m h i$, somebody.
(4) An illustration of a free interrogative not used except in questions is $p^{\prime} u^{n}$, who? All the other free pronouns, especially the indefinite, are also used interrogatively without change in form.

## Adverbs and Conjunctions

Closely akin to the free pronouns but in many instances acting rather as pro-verbs and pro-clauses are numerous unattached words which we may call adverbs and conjunctions. These are difficult to analyze, but some are elearly free pronoun roots with affixes.
(I) Adverbs are: hu, thus; huta, in this manner ( $t a=$ in $)$; $j u$, thus ; $j a$, hither ; $j u^{n} j u^{n}$, here ; $j \ddot{i}^{n} j u^{n}$, there (less remote) ; $w^{a} j u^{n}$, there (more remote) ; hi'a $n a^{n}$, by doing something, how; hi, per-
haps (identical with the free indefinite pronoun $h i$ ). Adverbs like the free pronouns may be interrogative.
(2) Conjunctions are either free or must stand at the beginning or end of clauses.

Standing almost anywhere : ha da $a^{n}$, soon, enough, already, and now, and then, and ; ha ba, but, also, and ; $x a^{n}$, then, when, whenever, since, because, therefore, you know.

Standing at the beginning of clauses and sentences : ' $\begin{gathered} \\ t \\ t a ̈ \\ n a^{n}\end{gathered}$, in that case ; ' $d \underline{z} x a^{n} n a^{n}$, in case, if ; lut $x a^{n}$, so then, accordingly.

Standing at the end of clauses and sentences: jüă hüü zuän nan, whenever, as often as; $k i n n a$, as soon as ; $k i k u$, after ; $x u h u\left(x a^{n}\right.$ $+h u l$ ) then so, because; nầi $t i$, since (temporal) ; $m \tilde{a}^{n} x a^{n}$, while; $m \bar{a}^{n} n a^{n}$, after.

## Prefixed Pronouns

Pronouns of these series are placed before the root in noun and verb clusters, and in transposed rootless constructions directly before postfixes. They are indispensible to the cluster and with it form a sentence. The elements are slight and two or more are frequently so coalesced as to form a single syllable. Verb prefixed pronouns of definite meaning do not occur in the third person singular subject and object case. Thus $m a^{n}$, he, she, or it went ; $m u^{n}$, he, she, or it saw him, her, or them. Elsewhere the pronoun must be formally expressed.
(1) Prefixed possessive pronouns are subjoined to noun and verb elements. Person and number are expressed. The noun termination may be replaced by postfixes denoting possession. Thus kana, mother; 'ânkana, my mother; 'ânkawa'i, my (own) mother. If the possessive pronoun refers to the subject of the sentence we have the choice of two constructions: uncompounded or untransposed, ' $\hat{a} n p \bar{a}^{n} z v a^{\prime} i t i m u u^{n}$, my deer own him-I saw; compounded or transposed, tipann $m u u^{n}$ ' $\hat{a} n w a a^{\prime}$, him-I deer saw my own. These pronouns plus nouns may also translate English predicate construction. Thus 'ânkana or 'ânkawa'i may have the sense, she is my mother or who is my mother. Only a few verb roots prefix these pronouns. The ordinary verb postfixes are appended. Thus masö to be glad; 'ânmasöhüu, my present gladness or I am glad.

[^6](2) Prefixed subject pronouns accompany conspicuously verbs denoting motion or position and the passive form of verbs. Thus 'a $m \ddot{a}^{n}$, I went; ' $\hat{a}$ ' $\ddot{a}^{n}$, I sat. The pronouns are only eight in number, person and number being expressed: ' $\hat{a}$, I ; ' $a^{n} n a^{n}$, we 2 ; ' $i$, we 3 ; ' $a^{n}$, you 1 ; $m a^{n} n a^{n}$, you 2 ; $m a^{n}$, you 3 ; $\quad$, he, she, or it ; ' $a^{n} u a^{n}$, they 2 ; ' $i$, they 3 . The first and third persons dual and $3+$ plural are the same.
(3) The prefixed third person subject pronoun indefinite is $u a^{n}$. To illustrate : $\pi a_{n} t ゙ a a j a$, it is said, or they (indefinite) say ; $n a^{n} p^{\circ} a-$ $t^{H} i^{n} a^{n} p \ddot{u} a$, it or they fire flash happened, i. e. it lightened. The noun prefix $n a^{n}$ of class 2 is evidently identical.
(4) In the prefixed subject + object pronouns combinations of animate and inanimate gender ; singular, dual, and plural number; subject and object case ; and first, second, and third persons find somewhat incomplete and irregular expression. The subject and object do not refer to the same person or thing. Third person singular subject + third person singular object is not pronominally expressed; thus $m u^{n}$, he, she, or it, saw him, her, or it. The pronoun elements are closely knit together, forming one or two syllables, subject element preceding object element. The number of combinations is perhaps more than fifty. Examples: timut, him, her, or it I saw ; pimmi, them $2+I$ saw.
(5) Prefixed reflexive-reciproeal subject + object pronouns are exemplified by : $1 a^{n} m u^{n}$. I looked at myself; 'imam $m u^{n}$, each of them $3+$ looked at himself, or they $3+$ looked at one another. In order to separate reflexive from reciprocal meanings a form of the free emphatic personal pronoun must be added. Thus ${ }^{n} a^{n} a a^{n} n t a$ 'ima mut, each of them $3+$ looked at himself; ' $a^{n} \tau c^{\prime} a^{n} n n a{ }^{\prime} i m a z u^{n}$, they $3+$ looked at one another.
(6) Prefixed referential object pronouns denote a relation between the subject, the verb, and some person or thing not the direct object. The direct object may or may not be expressed. The person or thing referred to may be expressed by an appositive noun or free pronoun outside the cluster. The reference is vague and English translations for each form are therefore numerous. Gender, number, and person are partially distinguished as in (4) and (5). The number of combinations is great. Thus $m a^{n} m p \ddot{a}^{n} m u^{n}$, you I
him with reference to me deer saw, you I saw my deer, you I saw the deer by me, you I saw the deer of which I spoke, you I saw the deer which I shot, you I saw a deer for me, you I saw a deer with me, you I saw a deer before I did, you I saw a deer instead of my seeing a deer, etc. Third person singular subject, and third person singular subject + third person singular object, are suppressed as in prefixed pronoun sets (2) and (4). Thus söă nä na ' $\hat{a}^{n} k=\check{u} p$ ' $d$ whd hüd, the man (he it) with reference to him horse
 ence to him horse water takes away.

## TU''Un NA, THE VERB ROOT

## The Verb

The morphology of the verb resembles that of the noun. Polysyllabic roots can perhaps be analyzed into simpler elements. Gender, number, case, person, tense, aspect, mood, voice, position, direction, limit, cause, result, etc., may be formally expressed in the verb cluster. The various sets of pronouns prefixed to verb roots have been mentioned above.

Tense, mood, and the like, are either not formally expressed, or are brought out by affixes, by the employment of two verb clusters, or by verb + verb compounding.

Tense is indicated largely by prefixes. Negative forms differ from the corresponding positive forms by having different tense postfixes and also by prefixing a negative element - a double negative construction such as is used in many languages. Some roots require one suffix to express a certain tense, other roots a different suffix. Tenses commonly heard are illustrated by the following forms of the verb $m u^{n}$, see.

| Tense | Positive | Negative |
| :---: | :---: | :---: |
| Aorist | $m u^{n}$, saw | wa $m u^{n} m i$, did not see |
| Progressive presentor imperfect | $m u^{n} h u a{ }^{\text {, is }}$ is or was seeing | zua $m u u^{n} m \ddot{a}^{n}$, is not or was not seeing |
| Immediate future | $m u u^{n} h \ddot{a}^{n}$, is about to see |  |
| Indefinite future | $m u u^{n} j a$, will see | wa mut ${ }^{n} u^{n}$, will not see |
| Definite future | su $m u^{n} j a$, will see | su wa mu $u^{n} p u^{n}$, will not see |
| Unreal | $m u u^{n} j a^{\prime} a^{n} n a^{n}$, might have seen |  |
| Ideal | $m u i^{n} m i n a^{n}$, may see |  |

The forms given above are in the third person singular. Prefixed pronouns, if required, are placed before these forms. In the negative the rea may even be omitted ; compare French negation with pas. Other tense postfixes are progressive positive $m a^{n}, ~ h a^{\prime \prime}$, negative $m l^{n}$. $M a^{n}$ denotes permanent state or continuous activity and is employed as tense-postfix with verbs of static meaning. $M a^{n}$ is also one of the formatives of derivative verbs ; see below.

In some of these postfixes an original positional or directional force is probably still felt. The progressive tense of $m a^{n}$, go, is $m \ddot{a}^{n}$ hüa, is going (in a direction away from the speaker). The progressive tense of ' $\ddot{a}^{n}$, come, is ' $\ddot{a}^{n} h \ddot{a}^{n}$, is coming (in a direction towards the speaker). The forms $m \ddot{a}^{\prime \prime} h \ddot{a}^{n}$ and ' $\ddot{a}^{n}$ hüă do not exist. To most verb roots, however, both hĭŭ and hän may be appended, औй suggesting going, progression, duration of activity, while hän denotes coming, immediate futurity. The future and passive $-j a$ calls to mind the adverb $j a$, hither; compare $h \ddot{a}^{n}$. The negative progressive - $m a^{n}$ seems to be the same as the verb $m \ddot{a}^{n}$, go; comрare hйб.

Customary and frequentative aspect is expressed by prefixing $z i^{i n}$, which precedes all other elements in the verb cluster except the prefixed pronoun: thus $w i^{n} m i^{n}$ hum, used to see, saw again and agaiin.

The majority of sentences are indicative statements and have no formal expression of mood.

When a statement is made according to tradition, report, or other authority outside the speaker the narratival $\pi i i$ is prefixed, occupying the same position as $\tau v^{n}$, which it precedes if both are used. Thus wi $m u^{n}$, saw, it is related.

Quotation, either direct or with shifting of person (indirect) is expressed by the free quotative $m u^{n}$, which appears after, rarely in, the quotation. Thus $m u u^{n} m u^{n}$, (he) saw (him), (he) said.

There is no imperative. Commands are indicated by tone of voice. The tense is usually future ; a of the negative is regularly omitted; $x a^{n}$, then, often follows the verb. Thus, $a^{n} m u^{n} j a x a^{n}$, you 1 sce then!
$T a^{n}$ is a hortatory element which precedes first person verbs in exhortations. The future and the negative without wa occur as in commands. Thus $t a^{n} \quad \imath m u j a$, let us sce.

The question requires formal indication unless it contains some interrogative pronoun or adverb. Both positive and negative direct questions are introduced by $x a^{n}$ or $p a, x a^{n}$ being the more common. If quoted the quotative follows. Thus $x u$ su $u d a m u^{n} p u^{n} m u^{n}$, will (he) not see, (he) asked. The indirect question requires two verb clusters; see below.

The following clusters may be used only in conjunction with conplementary clusters. They may be called infinitive forms.
(1) Real infinitives end in $j a$ ' $i$. Negation must be expressed by the complementary verb. Thus 'â măŭ hŭa ti mu ${ }^{n} j a$ ' $i$, I want to see him.
(2) Indirect question infinitives positive end in $j a^{\prime} i$; negative end in $m i^{n} ' i$. They must be preceded by $t^{\circ} a$. Thus măt $t^{\prime \prime} l a{ }^{\prime} a^{n} t^{\circ} a$ $m u^{n} j a$ ' $i$, you I me asked whether (he) saw (him).
(3) Unreal infinitives end in ja püa'i. Negation must be expressed by the complementary verb. Thus $n a^{n} t^{\circ} a^{\prime} a^{\prime} a^{n} n n^{\prime} i$ $m u^{n} j a$ püd $i$, it is a possibility that you 2 could have seen them $3+$.
(4) Purpose infinitives end in $j a k i$. Negative must be expressed by the complementary verb.

Compare $k i$, postfix of free emphatic personal pronouns. Thus ' $\hat{a} m \ddot{a}^{n} h u ̈ a d p i m u^{n} j a k i$, I am going in order to see them $2+$.

Verb + verb compounding also assists in the expression of tense and mood; sce below.

What we term the Tiwa passive is a device for emphasizing the subject. The subject, definite or indefinite, must be in the third person, and finds no prefixed pronominal expression. The noun subject may or may not be expressed and if expressed may or may not be compounded. The object, alias subject, must be expressed by a prefixed subject pronoun. The noun object if present may not be compounded, but stands outside the verb cluster and has its proper termination like a true subject. The object may stand in the first, second, or third person. The various verbs form the passive by postfixing between root and tense postfix if present the various elements $j a, k a, t a, l a, m a$, each verb employing only one of these elements. Examples of the passive construction are : With definite or indefinite subject unexpressed and object expressed by second person singular prefixed subject pronoun, ' $a^{n} m u u^{n} j a$, you I
were seen by him, her, it, them, somebody, or something. With definitesubject expressed by compounded noun and object expressed by second person singular prefixed subject pronoun,' $a^{n} \kappa^{x}{ }^{2} a m u^{n} j a$, you I were seen by a bear. With definite subject expressed by uncompounded noun and object expressed by second person singular prefixed subject pronoun, ' $a^{n} m u^{n} j a$ kōa na, you i were seen by a bear. With definite subject expressed by compounded noun and object expressed by second person singular prefixed subject pronoun and by uncompounded noun, sôă nä na ' $a^{n}$ kỗă mun ja, you ı, a man, were seen by a bear. With definite subject expressed by uncompounded noun and object expressed by second person singular prefixed subject pronoun and by uncompounded noun, sō̃ă nä̈ na ' $a^{n} m m^{n} j a$ Kód $n a$, you 1, a man, were seen by a bear.

Verb + verb compounds in which the second element is the root püă, happen, become, also correspond to English passives; see below.

Simple and composite postfixes describe position, direction, limit, cause, result and other adverbial notions with an exactness totally foreign to English expression. These postfixes are comparable to and in some instances identical with postfixes accompanying noun roots. Examples are : pigan, towards in a downward direction away from the speaker ; $-n \ddot{a}^{n} n a$, down there within a hollow object ; $-x \ddot{a}^{n} n a^{n}$, in an upward direction away from the speaker as far as.

Tiwa expresses a large percentage of verbal conceptions by verb + verb compounds. The meaning of the compound is usually distinct and the compound is felt as a simple verb as a result of long usage. Two, three, or even four verb roots may be compounded. The last member frequently denotes the chief or causal activity, yet in some compounds it assumes an almost affixal function. To this last member the first or earlier members may stand in most diverse relation. Not infrequently they express attendant, purpose, or result activity. Frequent as last members are the motion verbs $m \ddot{a}^{n}$, go, ' $\ddot{a}^{n}$, come ; the position verbs $k^{\prime} a$, lie ; ' $\ddot{a}^{n}$, sit, $k^{n} i$ stand, $j l a$, move about in or at a place; and the verb prid, happen, become. Examples are : töa, he separated, pulled off, picked up $+m \ddot{c}^{n}$, he went $=t \bar{a} a m \ddot{a}^{n}$, he fetched ; t $\quad 0 \dot{a} l a^{n}$, he shook his arms or flapped his
wings $+m \ddot{a}^{n}$, he went $=t^{n}$ ö́ $l m \ddot{a}^{n}$, he flew ; ' $u h^{n}$, he said $+m \ddot{a}$, he went $=' u^{n} m \ddot{a}^{n}$, "he up and said;" $x u m a^{n}$, he was taken care of
 hook with horns +' $\hat{a}$ wita, I was tossed $=$ ' $\hat{a} x^{u} \hat{i} \neq t i v i t a$, I was hooked and tossed.

What may be termed derivative verbs are formed by adding to verb roots certain elements which fundamentally modify the root meaning, the combination behaving as a verb + verb compound. The relation of the derivative verb to the verb + verb compound, is perhaps analogous to that which the noun + noun compound, the last member of which is of adjectival force, bears to the noun componund. Thus $m z^{n}$, see, may not only be connected with exceedingly numerous pronoun elements, tense, mood, and voice elements, positional, directional, limital, causal, and resultal elements and combinations of such elements, but may originate a number of verbs of derivative meaning each one of which permits as many forms as does the simple root $m u^{n}$. Thus $m i^{n} m a^{n}$, seem; $m u^{n} w \ddot{a}^{n}$ show. The derivative verb may act as a member of verb + verb compounds. Thus $x u$, care for ; derivative verb $x u m a^{n}$, be taken care of; puld, become; $x u m$ prŭa, (he) became taken care of. $M a^{n}$ of derivative verbs is probably the same as the tense postfix $m a^{n}$, denoting permanent state or continuous activity. Unanalyzed verb roots of two or more syllables may prove to be derivative or compounded verbs.

## The Interjection

Taos speech is rich in a class of verb roots which express assent, negation, various states of emotion, volition, and the like. These differ from other verb roots in that they take no affixes, but in their affixless form have the same syntactic usage as verb clusters. Thus $h a^{n} m u^{n} x a^{n}$, yes quotative then, means she said that she was willing to do so. Examples are :
$h a^{n}$, yes, all right, also said by a listener during a narration to show interest.

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na'a, no
' }a\mathrm{ , expression of surprise
' }\mp@subsup{a}{}{n}\mathrm{ , expression of pain
' }\mp@subsup{a}{}{n}nta\mathrm{ , expression of admiration
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'u $x a^{n}$, expression of scorn or ridicule,
$t^{a} a^{\prime} a \operatorname{cxp}$ ession of gratitude
$\tau v \hat{a} d a^{\mathrm{n}}, \mathrm{b}$ gone far from here!
săŭ, or $s i^{\prime} i$, expression of desire for attention.

Greeting, Swearing, Men's and Women's Language

The common greeting is $j a ̆ u ̆ u$, said on all occasions. Jăŭ may be translated by hello, how do you do, good bye. The following forms are also much used : sing. ' $a^{n} k ' u$ va $m \alpha^{n}$, dual $m \alpha^{n} n k \prime u$ चa $m a^{n}$, $3+$ plu. $m a^{n} k^{\prime} u w a m a^{n}$, you live well, progressive tense of $k \prime u$, thrive, $+z \pi$, be alive, live. The reply is the same, always using of course the proper number. Good bye may be rendered by $k ' u k a$ $m a^{n}$, which seems also to contain the element $k$ 'u. Püz' 'u, "friend," is a much employed salutation.

The nearest approach to our swearing is such an expression as $n a^{n} w \hat{a} x a n n a ̈ n a ̈$, disgust, or $t a^{\prime} a t u t i$, thou male ancestor.

A difference between men's and women's language is noted in the expression: What do you want? Men say hăı? Women say hi'i?

## Text

An incompletely analyzed portion of an animal story with interlinear translation and vocabulary follows. The alphabetic order of the vocabulary is: ', ' $a, ~ ' a n$, 'ä, ' ${ }^{n}$, 'â, 'â' $, b, d, g, h, ~ ' i, ~ ' i n, ~$
 $\mathrm{x}^{\mathrm{u}}$.

> Kal hlŭ 'u hat Pän liū 'u
> Old She-Wolf and Old She-Deer 'An n na $t^{\text {s }}$ 'ia ja wa 'i
> with Reference to Them 2 It Is Told


| "An |  | 'â wa t'a män. <br> I am not doing. | Ja du Here | 'â too m I live |  |  | u poiă $1 \mathrm{ga}^{\mathrm{n}}$. <br> ones with." |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathrm{Ta}^{\mathrm{n}}$ Hortatory | $\begin{aligned} & \mathrm{t}^{3} \text { tuag } \\ & \text { toget } \end{aligned}$ | $\underset{\text { quotative }}{\mathrm{mu}^{\mathrm{n}}}$ | 'i toó <br> they $3+$ live | qu | $\begin{aligned} & \text { au } \\ & \text { ative } \end{aligned}$ | $\begin{gathered} \mathrm{xa}^{\mathrm{n}} \\ \text { then } \end{gathered}$ | kal lịŭ'u Old She-Wolf |

wi tu ${ }^{\mathrm{n}}$ hŭả. $\quad \mathrm{Ha}^{\mathrm{n}} \quad \mathrm{mu}^{\mathrm{n}} \quad \mathrm{xa}^{\mathrm{n}} . \quad \mathrm{Hu} \quad \mathrm{xu} \quad \mathrm{t}^{\circ}$ ö ji
she narratival said. Yes quotative then. So tben day every
' $\mathrm{a}^{n} \mathrm{n}$ ni la toö̆ă män hŭă. $\quad \mathrm{Hu} \quad \mathrm{xu}$
they 2 quotative wood pull off or pick up went. So then

| ' $\mathrm{a}^{\mathrm{n}} \mathrm{n}$ 入a $\mathrm{t}^{\circ}$ ŏă mä ${ }^{\text {n }}$ | $n \mathrm{n}^{\text {' }} \mathrm{u}$ | ha la |
| :---: | :---: | :---: |
| they 2 wood pull off or pick up went | when, | almost |

wi xŭă ka hŭă.
she (the wolf) narratival was biting her (the deer).'
Hu xu pän ${\text { liŭ 'u na hu 'i wi 'u ' } u^{n} \text { män hŭă: }}^{\text {n }}$
So then the old she-deer thus them $2+$ she narratival little ones tell went :
Juhi kallĭŭ'u hat 'â wi hu ta hän.
"Perhaps (by) Old-She-Wolf very soon I narratival. killed be shall soon.

 when, you 2 roast put when it in a state of making a s-s-s sound sizzle goes, in that case

| xu | ma $^{n} n$ nak'al $p u^{n}$. | Haba | ' $a^{n} m$ 'uwa'in |
| :--- | :---: | :---: | :---: |
| then | yon 2 not eat shall. | And | (by) her $2+$ little ones |


| $\begin{gathered} \text { hi'an } \mathrm{n} \\ \text { by (having done) } \end{gathered}$ | $\begin{gathered} \mathrm{k} \\ \text { what then } \end{gathered}$ | man ${ }^{\text {n }}$ tö ${ }^{\prime}{ }^{\prime} u$ ju you $22+$ spots are pretty |
| :---: | :---: | :---: |
| $m a^{n} n t^{s \prime}{ }^{\prime a}{ }^{\prime} a^{n} l a n$, you $\mathbf{2}$ asked are when, | $\mathrm{ka}^{\mathrm{n}} \mathrm{n}$ ka na By) our 2 mothe | ' $a^{\text {n }} n$ köă ${ }^{\text {uil }} 1$ ta ka 2 (in) smoke shut down in |
| $\begin{aligned} & \text { hu } \\ & \text { thus we } 2 \text { (as regards) }{ }^{\text {' }}{ }^{\mathrm{n}}{ }^{1} \end{aligned}$ | k'u ju man ots pretty are | $m u^{n} \quad$ ma $^{\text {n }}$ pä <br> tly,' quotative you 2 |


| Hu | xu | ${ }^{\prime} a^{n} w a^{n} n$ | huta | 'i mǎı̆ | xu | $m a^{n} p \ddot{a}^{n} n k^{n} l^{1}$ taja. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| So | then | they | in the same manner | they $3+$ wish | then | you 2 them $3+$ shat |
| So | then | they | in the same manner | they $3+$ wish |  | down in will. |

Hu'an män nu man $n x^{n i a ̆ ~} p$ män $^{n} j a$ wâ $k$ ta'a Xựin ${ }^{2}$ So (doing) after you 2 run go shall to that far place down the male ancestors
' i 'än na ga ${ }^{n}$. $\quad \mathrm{Hu}$ xu $\quad \mathrm{ma} a^{\mathrm{n}} \mathrm{n}$ su xum pŭǎ ja.
they $3+$ sit or stay in where down where. So then you 2 will cared for become will"'

[^7]
## Vocabulary

'a, in ta 'a luli, male ancestor.
' $a$, in hi'anan, having done something, and hu'anan , so doing.
'ăil, in 'ăl tän na ${ }^{n}$, in that case, 'ăī xän na ${ }^{n}$, in case.
'ăĭ tän $n$, see 'ăi tä ${ }^{n} n^{n}$
'ăĭ tä ${ }^{n} n a^{n}$, conjunction, in that case:
'ăi $x$ än $^{n} n$, see 'ăĭ xän $n a^{n}$.
' ăĭ xän na ${ }^{n}$ conjunction, in case.
' $a^{n}$, first and third person dual pronoun element in ' $a^{n} n a^{n}$, we 2 , they 2.
' $a^{n}$, second person sing. prefixed subject pronoun, you i.
' $a^{n}$, third person pronoun element in ' $a^{n} \mathrm{ma}^{\mathrm{n}}$, lis, her, or its, $2+$ animate, and ' $a^{n} w a^{n} n a^{n}$, he, she, it, they.
' $a^{n}$, in t' 1 '̌a ' $a^{n}$, ask.
' $a^{n} m$, see ${ }^{\prime} a^{n} m a^{n}$.
' $a^{n} m a^{n}$, third person sing. $2+$ animate prefixed possessive pronoun, his, her, or its, $2+$ animate.
' $a^{n} n$, see ${ }^{\prime} a^{n} n a^{n}$
' $a^{n} n a^{n}$, first and third person dual prefixed subject pronoun, we 2 , they 2.
' $a^{n}$ wa $a^{n} n$, see ' $a^{n} w a^{n} n a^{n}$.
${ }^{\prime} a^{n} w a^{n} n a^{n}$, third person sing., dual, and plu. free emphatic personal pronoun, he, she, it, they.
' ${ }^{\text {an }}$, verb, sit, stay, be.
'â, first person sing. prefixed subject pronoun, I.
'â, first person sing. pronoun element in 'â na $\mathrm{ma}^{\mathrm{n}}, \mathrm{my} 2+$ animate.
'â na ${ }^{\text {T }} \mathrm{m}$, see, 'â na" $\mathrm{ma}^{\mathrm{n}}$.
'â $n a^{n} m a^{n}$, first person singular $2+$ animate prefixed possessive pronoun, my $2+$ animate.
'i, first and third person $3+$ plural prefixed subject pronoun, we $3+$, they $3+$.
'i, prefixed subject + object pronoun, he, she, or it, them $2+$.
' i , postfix denoting possession or inherent quality, in ma ${ }^{\mathrm{n}} \mathrm{n}$ tö k ' $u$ ju'i, you $22+$ spots are pretty having; often preceded by wa, as in ' $a^{n} m$ 'uwa'i na ${ }^{n}$, her (own) $2+$ little ones.
'u, noun, smallness, little one, little thing; compounded it acts as a "diminutive" expressing smallness, prettiness, dearness, oldness. With terminations 4 b , sing. 'u'una, plu. 'u'u nä ma'.
' n , third person $2+$ plu. inanimate pronoun element in the referential pronoun 'uman nan man, them $2+$ inanimate he, she, or it, for you 2.
' $u$, in $n a^{n}{ }^{\prime} u$, when.
'u $m a^{n} n a^{n} m$, see 'u $m a^{n} n a^{n} m a^{n}$.
'u $\mathrm{ma}^{\mathrm{n}} \mathrm{na}^{\mathrm{n}} \mathrm{ma}^{\mathrm{n}}$, composite referential pronoun, then $2+$ inaninate he, she, or it, for you 2.
'un, verb, say, tell.
ba, in ha ba, but.
$b a^{\mathrm{n}}$, in $\mathrm{x}^{\mathrm{n}} \mathrm{ial}^{\mathrm{b}} \mathrm{ba}^{\mathrm{n}}$, run.
$d a^{n}$, in ha dan ${ }^{n}$, enough, and $j a d a^{n}$, here.
gan ${ }^{n}$ directional and positional postfix, down (to) where.
$\mathrm{ga}^{\text {n }}$, apparently without the meaning "down" in poiă $1 \mathrm{ga} \mathrm{g}^{\mathrm{n}}$, with.
ha, in ha ba, but, ha dan, enough, and ha la, almost.
ha, in t'ǔă ha, together.
ha ba, conjunction, but, also, and.
hada ${ }^{n}$, adverb and conjunction, enough, already, soon, and now, and then, and also, and.
ha la, adverb, almost, less, least.
ha t , see ha da${ }^{\mathrm{n}}$.
ha ${ }^{\mathrm{D}}$, interjection, yes.
hän ${ }^{n}$, tense postfix denoting immediate futurity.
hi, free indefinite pronoun, anything, something, what, perhaps. It also occurs in hi a na ${ }^{\mathrm{n}}$, by having done what, and ju hi, maybe.
hi 'an, see hi 'a na ${ }^{\text {n }}$.
hi'ana ${ }^{\mathrm{n}}$, free indefinite pronoun, by having done something, by having done what, why, how.
hu, adverb, thus, so, and so.
hu, verb, kill.
hu'an, see hu'ana ${ }^{\mathrm{D}}$.
hu 'a na ${ }^{n}$, adverb, so doing.
hưă, tense suffix denoting progressive or continued activity; the corresponding negative postfix is män.
huta, adverb, in the same manner (hu, thus + ta, down in).
ja, adverb, hither ; also in ja da ${ }^{\text {n }}$, here.
ja, a future, imperative and, passive verb postfix.
ja, in lö ja, make a sizzling sound.
ja dan ${ }^{\text {n }}$ adverb, here.
ja du, see ja dan ${ }^{\text {. }}$
ji, distributive postfix meaning every, as in too ji, every day.
ju, adverb, thus, in ju hi, perhaps.
ju, in k'uju, be pretty.
ju hi, adverb, perhaps ( ju , thus +hi , something, perhaps).
$k$, see $\mathrm{ga}^{\mathrm{n}}$ and $\mathrm{xa}^{\mathrm{n}}$.
ka , in ka la ${ }^{\text {n }}$, wolf.
ka, noun, mother ; with terminations 4 a, sing. ka na, plu. ka nã man;
ka, a passive verb postfix.
ka, in xŭă ka, bite.
ka lan , noun, wolf; with terminations 4 c , sing. kalãna, plu. kalänä $\mathrm{ma}^{\mathrm{n}}$.
kallĭŭ'u, noun compound, little, pretty, nice or old wolf female ; used as a proper name, hence without termination.
$k a^{n}$, first person dual pronoun element in $k a^{n} n a^{n}$, of us 2 .
$k a^{n}$, in $k a^{n}{ }^{\text {lan }}$, bring.
$\mathrm{ka}^{\mathrm{n}} \mathrm{la}^{\mathrm{n}}$, verb, bring.
$k a^{n} n$, see $k a^{n}{ }^{n}{ }^{\mathrm{n}}$.
$k a^{n} n a^{n}$, first person dual sing. animate prefixed possessive pronoun, of us 2 .
köă, noun, smoke; with terminations I b, sing. köă'a na, particle or portion of smoke, plu. köä' 'a nä, smoke.
k'a, in k'a la ${ }^{\mathrm{n}}$, eat.
$k^{\prime}$ a la ${ }^{\text {n }}$, verb, eat.
$k^{\prime} u$, in k'u ju, be pretty.
$k^{\prime}$ üi, verb, place, put.
k'uju, verb, be pretty.
$\mathrm{k}^{\mathrm{n}} \mathrm{i}$, in kilan ${ }^{\mathrm{n}}$, shut up.
$k^{\mathrm{n}} \mathrm{l}$ l, see $\mathrm{k}^{\mathrm{n}} \mathrm{l} \mathrm{la}^{\mathrm{n}}$.
$k^{n i} l^{n}$, verb, shut up, enclose.
1 , see la ${ }^{\text {n }}$.
la, in ha la, almost.
la, a passive verb postfix.
la ${ }^{\mathrm{n}}$, in ka la ${ }^{\mathrm{n}}$, wolf.
lan ${ }^{n}$ in piiă $1 \mathrm{ga}^{\mathrm{n}}$, with.
lan the second syllable of several verb roots.
la, noun, wood ; with terminations I a, sing. la na, a piece of wood, plu. la nä, wood.

Yi, in ta 'a Yu li, male ancestor.
$\chi_{i}$, .in $t^{*} i \chi_{i} \chi_{i}$, make a s-s-s sound.
liŭ, noun, female, woman, wife; with terminations 3 b , sing. Xīŭ 'una, plu. liū 'u na ${ }^{n}$.

犭ö, in 犭ö ja.
lö ja, verb, make a sizzling sound, sizzle, boil.
lu, in ta 'aluli, male ancestor.
m , see $\mathrm{ma}^{\mathrm{n}}$.
ma, an aorist tense postfix.
măŭ, verb, wish, want, love.
$m a^{n}$, second person dual pronoun element in $m^{n} n a^{n}$, you 2, ma $^{\mathrm{a}} \mathrm{pa}^{\mathrm{a}}$ na ${ }^{\mathrm{n}}$, you 2 them $3+$, 'u $m a^{\mathrm{n}}$ nat ma ${ }^{\mathrm{n}}$, them $2+$ inanimate he, she, or it, for you 2.
$\mathrm{ma}^{\mathrm{n}}$, perhaps of plural force in 'â $\mathrm{n}^{\mathrm{n} m a, ~ m y ~} 2+$ animate, ' $\mathrm{a}^{\mathrm{n}} \mathrm{ma}^{\mathrm{n}}$, her $2+$ animate, 'u $\mathrm{ma}^{\mathrm{D}} \mathrm{ma}^{\mathrm{D}} m a^{\mathrm{n}}$, them $2+$ inanimate he, she, or it, for you 2 :
$\mathrm{ma}^{\mathrm{n}}$, a verb postix denoting permanence of state or continuity of activity ; it also forms derivative verbs, as $m u^{n}$, see, $m u^{n} \mathrm{ma}^{n}$, be seen, appear, seem ; xu, care for, xu $\mathrm{ma}^{\mathrm{n}}$, be taken care of.
$m a^{n} n$, see mat na ${ }^{n}$.
$m a^{n}$ na ${ }^{\text {a }}$, second person dual prefixed subject pronoun, you 2 .
$m a^{n} p a^{n} n$, see $m a^{n}$ pän $^{n} n a^{n}$.
$m a^{n} \mathrm{pä}^{\mathrm{n}} \mathrm{na}^{\mathrm{n}}$, prefixed subject + object pronoun, you 2 them 2 .
mã", verb, go ; often used with almost formative force.
män, tense postfix denoting progressive or continued activity used with the negative; the corresponding positive postfix is huan ; perhaps identical in origin with män, go.
$m a{ }^{n}$, in $m a^{n} n a^{n}$, earlier, later.
$\mathrm{ma}^{{ }^{n}} \mathrm{n}$, see $\mathrm{mä}^{\mathrm{n}} \mathrm{na}^{n}$.
$m a^{n} n a^{n}$, adverb, denotes difference in time, earlier, later, before, after, ago, from now, a little while ago, after a while.
män nu ${ }^{n}$, see $m a^{n} n a^{n}$.
$\mathrm{mu}^{\mathrm{n}}$, adverb, quotative element following direct and indirect quotations; it serves the same purpose as English quotation marks or "said he."
n , see $\mathrm{na}^{\mathrm{n}}$.
n , by progressive assimilation for m in $\mathrm{t}^{\circ} \mathrm{O} \mathrm{n}^{\circ} \mathrm{a}$; see m .
na, noun termination in 4 a , sing. ka na, mother, and 4 b , sing. pä" liŭu' 'u na, old she-wolf.
na, locative postfix used with sing. nouns and with verbs, in, in there, in where.
na, by retrogressive assimilation for wa in man $n$ na kal pun , you 2 not eat shall.
na gan ${ }^{\text {n }}$, composite locative postfix used with nouns or verbs, in + down, down in there, down in where (na, in $+\mathrm{ga}^{\mathrm{n}}$, down).
na ${ }^{n}$, noun termination in 3 a, plu. ta 'alu li na ${ }^{n}$, male ancestors; also used as noun plural sign with possessive pre- and postixes in ' $a^{\mathrm{D}} \mathrm{m}$ 'u wa 'i nan ${ }^{\mathrm{n}}$, her $2+$ little ones.
$n a^{n}$, prefixed third person subject pronoun indefinite, it, they (indefinite), as in na ${ }^{n} t^{\prime \prime}$ iă ja, it is said, or they (indefinite) say.
$n a^{n}$, in the pronouns ' $a^{n} w a^{n} n a^{n}$, he, she, it, they, $k a^{n} n a^{n}$, of us 2 sing., $m a^{n} n a^{n}$, you 2 , $m a^{n} p a^{n} n a^{n}$, you 2 them 2 animate, $u m a^{n} n a^{n} m a^{n}$, them $2+$ inanimate he, she, or $i$, for you 2 .
na $a^{n}$, adverb or conjunction, then, when; also in na ${ }^{n}$, $u$, when, 'ǎi tän $n a^{n}$, in that case, 'ăĭ xä ${ }^{n} n a^{n}$, in case, hi 'a na ${ }^{n}$, by having done something then, hu'ana ${ }^{n}$, so doing then, and $m \ddot{a}^{n}{ }^{n} a^{n}$, earlier, later.
na ${ }^{n}$, in wa na ${ }^{\mathrm{D}}$, approach.
$n a^{n}$ 'u, adverb or conjunction, when.
ni, by retrogressive assimilation for wi in ' $a^{n} n$ nil la $t^{n} o ̈ a ̆ ~ m a ̈ n ~ h u ̉ a ́, ~ t h e y ~$ 2 quotative wood pull off or pick up went.
$n u$, see $n a^{n}$.
p, see ba".
pän, noun, deer ; with te minations 4 a, sing. pän na, plu. pän nả man.
pän ${ }^{n}$, third person $2+$ plu. pronoun element in $m a^{n} p a ̈ n a^{n} a^{n}$, you 2 them 2 animate.
pän liŭ 'u, noun compound, little, pretty, nice, or old wolf female; uscd as a proper name, hence without termination; with terminations 4 b, sing. pän ${ }^{n}$ ̌ŭ ' 'u'u na, plu. pän liiú 'u 'u nä ma ${ }^{n}$.
pŭă, verb, happen, become.
$\mathrm{pu}^{\mathrm{n}}$, future and imperative verb postfix used with the negative; the corresponding postive postfix is ja.
$p^{p i a ̆}$, in $p^{0 i} 1 a ̊ l g^{n}$.
$p^{p i a ̆} l$ gan ${ }^{n}$, noun postfix denoting association or accompaniment, with.
su, tense prefix denoting definite future time, placed after the prefixed pronoun and narratival element.
$t$, see $d a^{n}$.
ta, in ta 'a luli, male ancestor.
ta, locative postfix used with sing. nouns and with verbs, down in, down at ; it occurs in huta, in the same manner, and ' $a^{n} n$ köa $k^{n} 11$ ta ka we 2 (in) smoke shut down in were.
ta, a passive verb postfix.
ta 'a luli, noun, father's or mother's father or more remote male ancestor ; with terminations 3 b , sing. ta 'a lu li 'ina, 3 a , plu. ta 'a lu lina ${ }^{\text {n }}$.
$t \mathrm{a}^{\mathrm{n}}$, hortatory modal element preceding the future of verbs.
tän, in 'ăi tä ${ }^{n}$ na $^{n}$, in that case.
tö, noün, spot ; with terminations i b, sing. tö'ö na, plu. tö 'ö nă.
tuủa, noun, meat ; with terminations i a, sing. tưả na, morsel of meat, plu. tủả nä, meat.
tu ${ }^{\mathrm{n}}$, verb, say.
t'a, verb, do.
$t^{\circ}$ a, locative postfix used with sing. nouns and with verbs, in, at, there, where.
$t^{\circ} \circ$, noun, day ; with terminations a a, sing. $t^{\circ} 0$ na, plu. $t^{\circ} \mathrm{O}$ nä.
$t^{\circ} 0$, verb, live in a house, dwell, live ; compare $n a^{n} t^{\circ} 0$, house.
toōă, verb, separate, pull off, pick up.
$t^{\circ} \mathrm{O} j \mathrm{ji}$, noun with distributive postfix, every day.
$t^{*} i$, in $t^{*} \mathrm{l} \mathrm{l}_{\mathrm{i}} \mathrm{x}_{\mathrm{i}}$, make a $\mathrm{s}-\mathrm{s}-\mathrm{s}$ sound, dissimilated from the two following syllables.

$\mathrm{t}^{\mathrm{*}} \mathrm{l}$ lilima $\mathrm{ma}^{\mathrm{n}}$, derivative verb, be in a state of making a s-s-s sound, sizzle.
t''iă, verb, say, tell.
t"'iă, 'an, verb, ask.
$t^{*}$ "ŭă, in t"ŭă ha, together.
t' 'ǔă ha, adverb, together.
wa, noun postfix denoting posssession.
wa, verb prefix denoting negation placed before the root and after the prefixed pronoun and tense prefix, and requiring peculiar tense postfixes.
wa, in wa na ${ }^{\text {n }}$, approach.
wa $n$, see wana ${ }^{\text {a }}$.
wa na ${ }^{\text {n }}$, verb, approach.
$w a^{n}$, in $a^{n} w a^{n} n a^{n}$, he, she, it, they.
wâ, free demonstrative pronoun element denoting greater remoteness.
wâ $g a^{\mathrm{n}}$, adverb, to that far place down.
wâ k , see wâ ga ${ }^{\text {º }}$.
wi, narratival modal element indicating that the statement does not originate with the speaker, placed before the root and the negative and tense prefix and after the prefixed pronoun.
xa, verb, roast.
$\mathrm{xa}^{\mathrm{n}}$, adverb and conjunction then, when, whenever, since, because, therefore, you know.
$x a^{n}$, in 'ăĭ $x a ̈ n^{n} n a^{n}$, in case.
xu , see $\mathrm{xa}^{\mathrm{n}}$.
xu , verb, care for.
xǔă, in xūă ka, bite.
xŭả ka, verb, bite.
xu $\mathrm{ma}^{\text {n }}$, derivative verb, be taken care of.
$x^{\mathrm{n}} \mathrm{ia}$, in $\mathrm{x}^{\mathrm{n} i \mathrm{a} \text { a } b a^{\mathrm{n}} \text {, run. }}$
$x^{\mathrm{o}} \mathrm{ia}$ ba ${ }^{\mathrm{n}}$, verb, run.


## SUMMARY

Tiwa is a moderately polysynthetic language of the same general type as Ute or Nahua. Salient features are: phonetic system characterized by clear and not violent sounds with absence of not etymologically synthetic consonant groups ; preponderance of one syllabled root and affix elements; notable lack of the processes of internal change in elements and unimportance of reduplication; denoting of root modification both by prefixation and postfixation, the latter process perhaps predominating ; remarkable development of root compounding, the compound forming with its affixes a single cluster; abundant formal expression of position, direction, and relation, but suppression of shape, quantity, and quality notions ; incomplete and imperfect expression of animate and inanimate gender, of singular, dual and plural number, of subjective, objective, and referential case accomplished chiefly by pronouns and never by case-affixes, of first, second, and third person, and of a great variety of tense and mood ideas ; persistent emphasis of the object by means of compounding or passive construction ; and elaborate development of syntax by means of conjunctive elements. Affinities of Tanoan with Nahuatlan, Kiowan, and Keresan will be discussed in a preliminary way in a separate paper.

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[^0]:    ${ }^{1}$ Presented al the Boston meetin of the American Association for the Advancement of Science, December, 1909.
    ${ }^{3}$ Powell, Indian Linguistic Families of America North of Mexico, 7 th Ann. 'Rep. B. A. E., Washington, 1891.
    ${ }^{3}$ Gatschet, A Mythic Tale of the Isleta Indians, New Mexico, Proc. Am. Philos. Soc., Dec., 1891, pp. 208-218.
    ${ }_{4}$ Bercovitz [and Paisano], Hymn Book and Appendix in the Laguna Indian Language, Laguna, New Mexico.
    ${ }^{5}$ Stevenson, The Zuni Indians, 23rd Ann. Rep., B. A. E., Washington, 1904, pp. $68-72,73-88,156,486,583$.

[^1]:    ${ }^{1}$ Pronounce Tánoan; adapted from Tano, the Mexicanized form of a Tewa name applied to the southern T'ewa formerly settled about and south of the present Santa Fe, New Mexico.

[^2]:    ${ }^{1}$ Harringlon, Notes on the Piro Language, American Anthropologist, Oct.-Dec., 1909, pp. 563-594.

[^3]:    ${ }^{1}$ Quoted by Chamberlain, The Child, New York, 1907, p. 134.

[^4]:    ${ }^{1}$ This pronunciation is illustrated by the much quoted saying that King George I of England was fond of "boetry and art."

[^5]:    ${ }^{1}$ Fortunately for the sake of this comparison the Tros word meaning meat, fixann, is commonly plural, the singular, tiăna, signifying a morsel of meat. Therefore both compounded and uncompounded object constructions could be employed, as stated abore.

[^6]:    AM. ANTH., N. S., 12-3.

[^7]:    ${ }^{1}$ In play.
    ${ }^{2} \mathrm{It}$ is believed that the ancestors and unborn progeny of deer are kept underground in a lake or kiva situated far northwest of Taos whence they are occasionally driven forth for the benefit of the Indians.

