

AN OUTLINE OF TAOS GRAMMAR

GEORGE L. TRAGER

1. INTRODUCTION

§1:1. *Location.* The Taos language is spoken by about eight hundred Indians constituting the population of Taos Pueblo, two miles north of the Spanish and American town of Taos (hereafter referred to as Taos Village) in northern New Mexico. There are at present no immediate Indian neighbors of the Taos, but there is evidence of various kinds that there were Indian settlements originally at Arroyo Hondo (twelve miles north), at a spot just east of the present Taos Village, and at Ranchos de Taos (six miles south), if not elsewhere.

§1:2. *Dialects and bilingualism.* It can be assumed that the extinct neighbors of Taos spoke dialects similar to that of the present pueblo. But the Taos language now presents no dialectic divisions, being spoken alike, so far as can be ascertained, by all the inhabitants. The oldest people, especially very old women, speak only Taos, but there are few such unilingual individuals; men and women of fifty or over speak Taos and Spanish; those between twenty and fifty years of age speak Taos, English and Spanish, the English improving as age decreases, and the Spanish correspondingly deteriorating; the children from school age (about five) to twenty speak Taos and English. Very young children speak only Taos, though in a few families English is used in the home.

§1:3. *Linguistic relationships.* Taos belongs to the Tiwa subfamily of the Tanoan family of the Azteco-Tanoan stock of languages. Its exact relations, and a brief sketch of historical phonology and morphology will be found in chapter six.

§1:4. *Bibliography.* Partial recordings of the Taos language have been made from time to time by various investigators, and there is some published material.

J. P. Harrington collected linguistic data at Taos in 1907 and 1908, and has a considerable body of text and other material in hand. He has published these papers: *Notes on the Piro Language*; about 180 Taos words are cited in comparison with other Tanoan languages, and the classification of the Tanoan languages into three subfamilies was first made; *An Introductory Paper on the Tiwa Language, Dialect of Taos, New Mexico*; a brief sketch of Taos phonetics and morphology is given, with a text and vocabulary; *Ambiguity in the Taos Personal Pronoun*, a survey of the pronominal prefixes. Several other publications of Harrington's dealing with Tewa or other linguistic and anthropological subjects contain references to or citations of Taos words.

Jaime de Angulo collected Taos material some years after Harrington. I have seen a copy of his manuscript, but have not used the material in my own studies.

I have published the following: *The Language of the Pueblo of Taos, New Mexico* (in phonetic transcription), with a discussion of Taos phonetics, phonetic and phonemic transcriptions of a text ("The Northwind and the Sun," translated from English for me), and a free interlinear translation; the material is now subject to correction in several respects, notably in the phonemic analysis of diphthongs, and in that tones are not noted; *The Days of the Week in the Language of Taos Pueblo, New Mexico*, a discussion of the Spanish loanwords for the weekday names; two Taos tales in text, with interlinear and free translation, as an Appendix to Elsie Clews Parsons' *Taos Tales*; also many Taos words (especially personal and proper names) in footnotes throughout the same volume; *The Comparative Phonology of the Tiwa Languages*, a study of the phonemic correspondences between Taos, Picuris, Sandía, and Isleta, based on a considerable number of common items of vocabulary; *The Kinship and Status Terms of the Tiwa Languages*, a presentation of all the terms of the four Tiwa languages as recorded by me, with phonological reconstruction to Proto-Tiwa, and discussion of meanings and other important points; *Spanish and English Loanwords in Taos*.

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Spanish and English Loanwords in Taos (*International Journal of American Linguistics*, vol. 10, pp. 144-158, Baltimore, 1944).

§1:5. *Sources and acknowledgments.* The material for the present Outline was collected partly during the year 1935-1936, while I was teaching in southern Colorado, by means of short trips to Taos periodically, and again during a six-weeks stay at Taos Village in the summer of 1937. The latter stay was made possible by a grant from the Department of Anthropology of Yale University, for whose generous assistance grateful acknowledgment is hereby made.

From November, 1935 to May, 1936, one informant, "A," was used. He was a good worker and knew what was wanted, but refused to continue, through fear

of exposure, and another had to be found. This one, "B," proved highly intelligent and very much interested in the work as such; he was used again in 1937 for the whole period. The wives of these two men, especially of "A," also contributed occasional information. In 1937 a third informant, "C," was also used, on part time. A few other individuals supplied occasional words and phrases. Because of the prevailing social situation at the pueblo, the identity of the informants must be carefully guarded, and they will be referred to, when necessary, only by the letters; they were all young men of about thirty years of age. "A" supplied the initial vocabulary of about 600 words, several short texts (including the "The Northwind and Sun" version and text 1 of "Two Taos Tales"), and basic paradigmatic material. "B" checked and corrected, where necessary, all this material, furnished the bulk of the remaining vocabulary (the total being about 2500 items), and a considerable amount of text, with very extensive morphological material, and he recognized the tones and helped in recording them properly. "C" furnished over half of the 1937 texts, including text 2 of "Two Taos Texts," and some other material. To "A," "B," and "C," but especially to "B," and to their wives and families and friends, I extend my thanks for their kindness, interest, and hospitality, and renew my promise to keep their identities hidden so long as they wish it so.

To the memory of Professor Edward Sapir I pay homage, and recall gratefully his interest in my American and other linguistic work, his willingness to publish this Outline, and his sympathy and encouragement.

This sketch was written in 1937, and was revised (principally in the phonology) in 1939. Publication having been delayed, nothing more was done to it until the summer of 1944, when I gave it a final rereading, added some items of bibliography, changed some points of transcription, and made some other changes (chiefly stylistic). I have not been able to return to Taos since 1937, so there has been no new material for me to work on.

I must express my thanks to Cornelius Osgood for including this sketch in the present volume, which he rescued from oblivion by means of the Viking Fund.

§1:6. *Conventions of form.* In this work all Taos linguistic material—phonemes, stems, affixes, words—is in roman type. Translations are in quotation marks, as are words of languages other than Taos used as occasional examples. Phonetic transcriptions are in roman type, within square brackets, the symbols being those suggested or described by B. Bloch and myself in *Outline of Linguistic Analysis*,¹ these being in general the same as the symbols of the International Phonetic Association.

Chapters are numbered and subdivided decimally.

¹ B. Bloch and G. L. Trager, *Outline of Linguistic Analysis* (Linguistic Society of America, Baltimore, 1942), pp. 18-37.

2. PHONOLOGY

§2:1. *Definitions, orthography.* The phonology of a language is defined as including all the phenomena relevant to the production and use of its sounds. It can be subdivided into phonetics and phonemics, and morphophonemics can be treated with it. The phonetics of Taos will be considered within the framework of the phonemic description. Phonemics deals with the phonemes of a language as units of pattern in forming morphemes, without regard to the values of the morphemes. Morphophonemics is concerned with the relationship of the phonemes within the pattern of function possessed by the morphemes composed of them.

A phoneme is a class of sounds in a given language, such that it is different from all other similar classes, and serves as a unit of the structure of morphemes; the number of such classes is limited, all sounds used in the language are assignable to one of these classes, and each class may include one or several sounds (which may be called allophones). A morphophoneme is a class of phonemes formed by one or more phonemes functioning in a defined way to give value to a morpheme.

Phonemes constituting parts of syllables in succession are called segmental; in Taos and usually, they are the vowels and consonants. Phonemes applying to syllables as a whole are prosodic; in Taos and usually, they are the various accentual phenomena.

The following symbols will be used to write Taos (in alphabetical order): ʔ, a, ʌ, b, c, c', d, e, ɛ, ə, (f), g, h, i, i, k, k', k_w, k_w', l, l, m, n, o, ɔ, p, p', p', r, s, t, t', t', u, u, w, x, x_w, y; and with vowels these accents (illustrated with a): 'a, ʌ, á, à. Punctuation: comma (,) and period (.). See §2:21-2:233 for the values of these symbols. In all my work on Taos previous to the article *Spanish and English Loan-words* (except in the footnotes to Parsons's *Taos Tales*) I used the symbol j for the palatal semivowel instead of y. But I have now decided to use y in all my Tiwa studies, and am making the change definitive here.

§2:2. *Phonemics.*§2:21. *The sentence, the phrase, the word.*

§2:211. *Sentence and phrase types.* There are no phonemes of intonation accompanying the sentence in Taos, but only a sentence-marker of intonation. That is, there are no contrasting types, and all sentences have the same intonation. The rise and fall of the voice is governed by the stress-tone combinations of the words, which remain essentially unchanged, and at the end there is a general falling-off—rather abrupt in character—with definite pause. The Taos sentence is not far different in intonation from an ordinary English statement. Questions, exclamations, emphatic statements, all have the same intonations, and are distinguished from the declarative sentences, if at all, by special words or particles. The phonemic limitations of the beginning and end of a sentence are the same as those of a word (§2:22), and a single syllable may be a full sentence. The end of a sentence is marked by a period (as in the "Appendix" to *Taos Tales*).

Within a sentence of more than one syllable there may be distinguished pauses which correspond to definite syntactic divisions; these pauses are usually shorter than the sentence-final pause, and in every case the preceding syllables have no final falling intonation, but a level or suspended intonation, showing that more is coming. The parts of a sentence between its beginning and such a pause, between two such pauses, and between such a pause and a sentence-final pause, may be called phrases (initial phrase, medial phrase, final phrase); each phrase pause is marked by a comma (as in the "Appendix").

It should be emphasized that the use of any punctuation marks other than the period and comma in Taos would be unwarranted by the phonemic facts of the language as I now know them. It may be that instrumental recordings would indicate some variation of the two types of intonation described. But the real variations from intonational monotony in Taos speech are due to the fixed stress and tone patterns, and are less numerous and extensive than the sentence-intonations of most European languages.

§2:212. *The word.* A Taos word must begin in a consonant; it may end in a vowel, or in one of the consonants which may check a syllable (§2:233), or in one of the rare syllable-final two-consonant clusters. It may consist of only one syllable, or of as many as eight or even more, though most words are of two, three, or four syllables, and the longer ones always consist of compounds of two or more stems, with various affixes. Each word, whether of one syllable or more, has one loud stress (§2:221); however, some monosyllables that are pronounced with loud stress in isolation may have this replaced by weak stress within the phrase or sentence; the exact conditions of this change have not been determined; these weak-stressed "words" will probably have to be written as enclitics (proclitics), with some symbol connecting them to the next word having a loud stress. Words of two or more syllables have one or more syllables with medial stress or weak stress, in any combination, to any number, and in any position relative to the loud stress, except that a loud stress is not followed by more than three other syllables (§2:223).

From these data it is clear that within a phrase or sentence there are as many words as there are loud stresses. If there is found a cluster of three consonants, there must be word-division between the second and third. But between two consonants or between a vowel and a following consonant (itself followed by a vowel), there need necessarily be only syllable division; this syllable division may also be word-division, but does not have to be such. That is, the exact point between two loud stresses at which word-division exists is not always determinable phonemically by my present data. It seems certain however that a consideration of all the kinds of accent-combinations possible, and instrumental recordings of the values of all nonloud-stressed syllables (such as the finals with raised pitch, see §2:223) and of pauses between syllables, would make it possible to state in purely phonemic terms the limits of a word.

On a morphological basis, the minimum free form consisting of a stem, which may itself be a free form, and all its affixes and compounded stems, can be clearly defined. Each such morphological word is found to have one loud stress, and it seems highly probable that the limits determined morphologically would be found to coincide in large part with such phonemic limits as might be found by the procedure just suggested. Accordingly, in all cases other than those of isolated words, word-division has here been determined by morphological criteria when the available phonemic description does not suffice.

The material in the preceding three paragraphs would come under the heading of what I have come to call *juncture phonemes* since this was written. My notes and phonetic data show that Taos has some kind of internal open juncture within many of its longer words, but until the data can be restudied, and new material gathered in the field, the analysis as here given will have to stand.

§2:22. *Prosodic phonemes.*

§2:221. *Stress.* Stress is a phonemic feature of Taos, existing in the form of loud stress, medial stress, and weak stress. The first two may be combined with any one of the three tones. That stress as such is phonemic is indicated by the fact that no rules on a phonemic level can be devised determining the place of the stressed syllables in a word, and such rules as can be laid down for certain morphological combinations are either very complicated or show many exceptions. There are not many instances of words distinguished by the position of loud stress alone (that is, without accompanying tone differences), but there are some: ʔoh'u "you sg. killed him": ʔ'ohu "he is washing it," ʔanʔ'o "they two washed themselves": ʔ'anʔ'o "they two washed him." Moreover, many nouns vary the stress patterns as between singular and plural absolute forms, and these changes are as important to correct apprehension of the forms as those in the suffixes. It will be shown in §2:232 how vowel length varies with stress.

Loud and medial stress are phonemically distinct, though there is some mechanical distribution of medial stress (as the "secondary" stress, the loud stress being primary) with normal tone, and a complete complementation of the two (from present evidence) in both the low and high tones (§2:223). Medial stress is found only where a loud stress is present, and only one loud stress is found in a phonemic word. The two are both distinct, of course, from weak-stressed ("unstressed") syllables.

Loud stress is a loudness of the syllable affected as compared with other syllables. Medial stress is a similar loudness, but less in degree. Weak stressed syllables are markedly less loud, and in ordinary speech are considerably slurred, with some obscuring of the clearness of the vowel: nasal vowels especially become rather indistinct under these conditions.

§2:222. *Tone.* There is a threefold distinction of tone in Taos loud- and medial-stressed syllables, the combinations of stress and tone being phonemically distinct. The tones are high, normal, low. The normal is by far the most common,

low tone is fairly common in stems, and high tone is limited to a few stems and suffixes (all of these, however, being of frequent recurrence). There are many pairs of words distinguished by tone alone: c'ɥ "to pass by": cù "to suck," w'ɛmǫ "one": wɛmǫ "it is real." In weak-stressed syllables there is only one kind of tone, which is taken to be the normal, as such syllables are usually like normal loud-stressed syllables in pitch.

Normal tone is for the most part at the usual pitch level for an individual's speech, and is of course relative, differing from speaker to speaker. High tone is distinctly higher and sharper. Low tone is distinctly lower and drawling.

§2:223. *Accentual patterns.* The stress and tone types described constitute two separate accentual systems, which, combining in definite patterns, give rise to seven types of syllables (a syllable being further defined segmentally, §2:231). These are: loud normal—written 'a, medial normal—|a, loud low—à, medial low—also à, loud high—á, medial high—also á, weak—unmarked (a). For high and low tones the loud and medial stresses are complementarily distributed, and it is therefore possible to use one symbol in each case and avoid unnecessary graphic complexity.

The stress system takes priority over the tone system, as is shown by the lack of tone distinctions with one of its types (weak stress), and by the fact that the word is definable in terms of the stress of syllables and not of their tone (§2:212).

In a word having a loud normal stress, all other syllables have medial or weak stress. If there is no loud normal, of two low-toned syllables the second is loud-stressed if it is not the last syllable, in which case the first is loud; the same rule holds for two high tones, or for a low and a high, in the absence of a loud normal.

Two-syllable words may have these patterns: t'ana, t'an|a, t'aná, tàna, tànà, tàná, tána, táná—all with loud stress on the first syllable; and tan'a, t'an|a, tàn'a, tán'a, t'anà, t'aná, with loud stress on the second syllable. Three-syllable words may have loud stress on any one of the three syllables, with weak stress or medial stress on one or both of the others. The same holds for four-syllable words. Words of more than four syllables do not seem to have loud stress further back than the fourth syllable from the end. The syllable preceding loud stress may have a medial stress or a weak stress; if it is weak-stressed, then the syllable before it most often has medial stress, usually with normal tone. A third syllable before the loud stress may have medial stress, in which case the two syllables following it are usually both weak-stressed.

Normal loud stress has a rising pitch immediately before a high medial stress. Final weak-stressed syllables two syllables or more after the loud stress are slightly higher in pitch and more prominent than elsewhere, thus constituting a marker of the word final syllable. Final weak-stressed syllables after a low tone are rather higher than the low syllable and somewhat prominent.

§2:23. *Segmental phonemes.*

§2:231. *Structure of the syllable.* Each Taos syllable is delimited first by having one of the seven stress-tone combinations indicated in §2:223. It is further defined by the fact that it begins with a single consonant-phoneme, contains a single vowel or one of the permissible two-vowel clusters, and ends with the vowel or vowel-cluster or in a single consonant or one of the permissible two-consonant clusters. We have the following formulas (C—consonant, V—vowel, Vv—vowel cluster): CV, CVv, CVC, CVvC, CVCC, CVvCC. The first C may be any of the consonant phonemes; the final C may be any of the phonemes designated as sonorants; final CC may consist of a sonant plus a voiced stop (§2:233). V may be any of the eleven vowel phonemes, and Vv any of the five biphonemic clusters (§2:232). All these types of syllables may presumably exist with any stress-tone, and in any position in a word, except that syllables of the type CVCC or CVvCC are always word-final (§2:212); they are also very rare, and examples have not been found for all the stress-tones. It is also true that high tone is almost nonexistent in syllables not ending in a vowel, and that syllables with Vv are rare with weak stress.

In recent loans from Spanish and English, there may occur initial consonant clusters. These are very rare, however, and it seems best to treat them as foreign elements not completely assimilated to the native pattern; structurally they behave as units, but will be written with the symbols of the two Taos phonemes of which they seem to be composed. Those recorded are: pl, pr, tr, kl, kr, and fr (f not occurring otherwise).

§2:232. *Vowels.* There are eleven vowel phonemes in Taos: a, ạ, e, ẹ, ə, i, ị, o, ọ, u, ụ. They are all distinct, and may occur in direct contrast; the nasal vowels are units, as syllables of the types tan and ṭan both occur.

The permissible vowel clusters are ie, ia, uo, əo, ịə. They might be considered unit phonemes, as they are unisyllabic, and little if any longer than a single vowel under the same conditions; they differ from disyllabic vowel sequences, which have ? between them phonemically, and from combinations of y, w, plus vowel. But phonetically they clearly consist of two elements, which are identical with single vowels, and by considering the clusters as biphonemic we are able to describe more fully the functioning of the single vowel phonemes and classify them phonemically.

The cluster ie is rare, but sufficiently substantiated. In one Spanish loan word, p^huelon̄a “frying pan” (informant “A”) we find what is apparently a cluster ue, with close second element, [e]; this could be considered as an incompletely assimilated foreign element in the speech of a bilingual, especially as other Spanish loans have uo < ue, as in m₁uoya^hana “steer, ox” < “buey.”

The phonemic functioning of the vowels is as follows: i, u may not occur in the same syllable with following homorganic semivowel (respectively y, w); e is very rare in stems, but frequent in suffixes, and is not found before w or y in the same morpheme; i combines in clusters with following e and a; o combines in

clusters with preceding ə and u; j, ɥ are limited before y, w in the same way as i, u; only j and ɥ, in that order, may form a nasal-vowel cluster. The following groups can now be defined phonemically, using phonetic labels for convenience: oral—vowels that cluster with each other in symmetrical patterns; nasal—vowels that do not cluster in such patterns; front oral—vowels that cluster as high preceding either of the other two; back oral—vowels that cluster as low following either of the other two; high oral—vowels limited in position before homorganic semi-vowels; mid front oral—rare vowel, limited chiefly to suffixes; mid back oral—the back vowel which is like neither high nor low (by any preceding definition); low front oral—the front vowel that is like neither high nor mid; mid oral—vowels distinguished from the other two in their group (front, back) by partaking of the characteristics of one but not of the other; low oral—those vowels which are neither like high or mid in all their functions; high nasal—like high oral; front nasal—the only nasal vowels that may cluster; mid nasal—vowels that are not found before w in the same syllable, but are found before y; low nasal—the vowel that occurs before both y and w in the same syllable. By taking account of a regular morphophonemic reduplication where an oral vowel is reduplicated as itself, but a nasal is replaced by the corresponding oral (§2:33), we are able further to classify the nasals as: back—corresponding to two of the back oral; neutral—corresponding to a front oral, but not functioning like a front nasal. These relations give the following table:

	ORAL		NASAL		
	Front	Back	Front	Neutral	Back
High	i	u	ɨ		ɥ
Mid	e	ə	ɛ		ɞ
Low	a	o		ɤ	

In each row and each column the phonemes have similar functions. This table, phonemically correct, is also exactly correct phonetically, as we shall now see.

All Taos vowels are long in free syllables when loud-stressed, and are rather short in weak-stressed syllables. Medial-stressed vowels are slightly shorter than loud-stressed ones. Vowels with normal tone and loud or medial stress are usually monophthongal longs, those with low tone are pulsated ("reduplicated") whether the stress is loud or quiet (thus t'ət'o "by the day" is [t'ət'o²a], and t'ə'əna "day" is [t'ə'ə²əna]); vowels with medial stress and high tone are rather short, those with loud high accent are longer. There are differences in the length of loud-stressed vowels depending on the vowel of the following syllable, but it would lead into too much detail to go into them in a limited description such as the present one.

The exception to the length of loud-stressed vowels is when they are followed by a plain stop, especially p, t, k, when the stop is long and ambisyllabic and the vowel quite short.

In checked syllables the vowels are always short, but less so with the low tone than otherwise, and never as short as weak-stressed vowels.

The clusters are unisyllabic gliding vowels with phonetically clear initial and final elements and a very brief glide from one to the other. They are longer when loud- or medial-stressed than when weak-stressed, but since the length is distributed over two elements, it is not so noticeable as for single vowels; on the other, hand, in checked syllables they are very distinctly short.

The combinations of vowels with syllable-final *w* and *y* form phonetic diphthongs, in which the second element is not necessarily entirely nonsyllabic (see the individual vowels, below, for the details). These have been found: *iw*, *aw*, *ow*, *əw*, *ay*, *oy*, *əy*, *uy*, *iw*, *əw*, *ey*, *əy*, *oy*, *uy*. These sequences function just like those of vowel plus syllable-final *l*, *m*, *n*, *b*, *d*, *g*, and moreover are in morphophonemic (and sometimes free) variation with two-syllable sequences of vowel plus *w* or *y* plus vowel; this guarantees that our phonemic analysis is correct, and that the sequences are not vowel-clusters (diphthongs) phonemically.

All oral vowels are slightly nasalized before *m* and *n*, and all nasal vowels are less nasal than usual before *m* and *n*; this is especially true in weak-stressed syllables, and correct recording is often difficult.

i is high front close when loud- or medial-stressed, somewhat more open when weak-stressed; it is still more open in all checked syllables. With syllable-final *w*, we have [iu] in which the second element is never quite as prominent as the first, though there is not a very marked difference between them. Before intervocalic *w*, especially on the low tone, there is partial assimilation, so that the effect is as of [i^uw]; this, however, is distinct from a possible *-iww-*.

e is mid front open (about as in English "let"), but slightly centered, giving a 'dull' quality. It has not been found after initial *ʔ*, but weak-stressed internally it is common in certain recurring morphemes.

a is low front, almost like English [æ], especially when loud-stressed (not common). Weak-stressed, it recurs in a number of morphemes. The fronted and raised quality is especially noticeable with high tone (as in *-yá*, future suffix). *ay* and *aw* are falling diphthongs, the first element being the same as it is elsewhere.

o is a low back vowel, typically unrounded and like the vowel of Eastern American English in such words as "hot." After *w*, and generally before and after labials, it may be slightly rounded. Before syllable-final *m* and *n* the vowel is centered, being much like American English *u* in "hunt," and very little different from Taos *ə* and *o* in similar position. The vowel is extremely common; the writing with *o* is chosen because of the phonemic patterning of the vowel. In weak-stressed position it is hard for non-natives always to distinguish it from *a*. *oy* and *ow* are falling diphthongs, the latter having often a slightly rounded first element.

ə is a mid back close vowel, i.e., with tongue position of, say, French *o* in "pot," but entirely unrounded; it varies somewhat toward the central position, so that it is often like the vowel of New England *r*-less speech in "bird." Weak-stressed it is more like the second vowel of English "sofa." The vowel is quite common. The groups *əy* and *əw* are falling diphthongs, with mid-central first element.

u is a high back close rounded vowel when not weak-stressed; but the rounding is often more what might be called an inner rounding than one caused by the kind of puckering of the lips found in European u-vowels, and occasionally in rapid recording it was confused with ə and vice-versa. When weak-stressed the vowel is rather open, as it is often also in checked syllables even when loud-stressed; before l, m, n in free and checked syllables there is an effect of a very close over-rounded [o]. uy is a falling diphthong, but the second element is rather prominent.

The nasal vowels are on the whole like the corresponding oral ones; ɨ and ɥ are high and close (more open when checked and when weak-stressed), ɥ being well rounded; ɛ̃ is lower and clearer than e, being like the a of English "cant," but more nasalized; ɤ̃ is not at all fronted, but is not a definitely back vowel; ɔ̃ is very slightly rounded, and further back and higher than ɤ̃. Before syllable-final m or n ɤ̃ is about like English u in "hunt," and is very much like Taos o in similar position and only slightly different from ɤ̃. The groups consisting of syllable-final w and y after nasal vowels are phonetically diphthongs with both elements nasalized, jw and ɥy being almost even diphthongs as compared to the others, which are definitely falling; ɛ̃y has a rather closer than ordinary first element.

The clusters ia and uo have the two elements relatively equal in weight in checked loud- or medial-stressed syllables; in weak-stressed syllables, they are not common, and the first element is more prominent; with low tone the first element is more prominent, with high tone the second; in loud normal free syllables the second element is somewhat more prominent than the first. The cluster ie follows the same rules. In əo the first element is always more prominent, the second being much like the vowel of American English "but." In uo the second element is not more often rounded than is o elsewhere. The nasal cluster jɛ̃ has the two elements equally prominent when loud-stressed; weak-stressed, and generally in checked syllables, especially with low tone, the second element is very short, and is raised to about the position of English i in "hit."

As is seen, the phonetic element of rounding is consistently present only for u, and cannot be used as a means of phonemic classification.

§2:233. *Consonants.* The Taos consonant phonemes are: ʔ, b, c, c', d, g, h, k, k', k_w, k_w', l, l̄, m, n, p, p', p', r, s, t, t', t', w, x, x_w, y. For all of them contrasting pairs of words can be cited so that there is no question of their phonemic distinctness. As for the possibility that some of them may not be units (as p', p'), it would seem to be ruled out by the phonemic functioning of these entities.

By their phonetic characteristics (see below for details) these phonemes can be grouped and labeled as follows:

By manner of articulation: plain stops and affricate (voiceless, fortis, unaspirated)—p, t, c, k, k_w; aspirated stops (voiceless, fortis)—p', t'; glottalized stops and affricate (voiceless, lenis, with glottal occlusion)—p', t', c', k', k_w', ʔ; voiced stops (voiced or voiceless according to position, lenis, nonglottalized)—b, d, g;

spirants (voiceless, fortis)—ł, s, x, x_w, h; nasals—m, n; liquids—l, r; semivowels—y, w.

By place of articulation: labials—p, p', p', b, m; dentals—t, t', t', d, n, ł, l; alveolars—c, c', s, r; velars—k, k', g, x, y; labialized velars—k_w, k_w', x_w, w; glottals—?, h.

For vowels it was seen that the phonetic and phonemic classifications coincided. This is not so for consonants, which is the reason for giving the expected, phonetically-based classifications first.

Phonemically we have these functions: a) appearing before a vowel only, that is, not at the end of a syllable—p, t, c, k, k_w, p', t', p', t', c', k', k_w', ?, ł, s, x, x_w, h; b) before a vowel and also in syllable-final position—b, d, g, m, n, l, r, y, w. Group b), consisting of the consonants which phonetically are voiced at least in some positions, is subdivided first into y, w on the one hand, which do not appear as syllable-finals after a homorganic vowel, and m, n, l, r, b, d, g on the other; and second, into b, d, g, which may appear as syllable-finals not only after vowels but also after one of the other consonants in group b), and m, n, l, r, which may not so appear. From group a) may be separated k_w, k_w', x_w, which do not appear before u or ʉ.

These are the only relations to be gotten from purely phonemic functioning. When we consider the morphophonemic interchanges (§2:34) we see, however, that we may set up these further groupings: p, t, c, k alternate respectively with p', t', c', k' (no evidence for an alternation k_w ~ k_w'); k, x alternate with ?, h; m alternates with p, w with k_w and x_w, y with c. These are all stem-initial relationships. In the interior of stems, b, d alternate with p, t; y with c and k; m, n with p, t.

From all these possible relations and groupings, we set up the following table, the numbers being explained immediately below:

1	p'	t'	ł	s						
		11	12	13	14	15	16	17		
2										
3					x	x _w	h		3	
4	p	t	c		k	k _w	}	?	4	
5										5
6	p'	t'	c'		k'	k _w '				6
7										
8	b	d			g				8	
9	m	n	⏟						9	
10				y		w			10	
		11	12	13	14	15	16			
18			l	r						

Phonemic functional groups: 1, consonants not in any relation to any others, except

that they are grouped above the line 7; 2, every consonant within this line is in some relation to one or more of the others; 3, in the relations $x \sim x_w$ and $h \sim x$, corresponding to $k \sim k_w$ and $ʔ \sim k$ (4, 5); 4, in regular alternation with 6 (no evidence for $k_w \sim k_w'$, but as the latter is very rare, this may be merely a statistical lack, and it seems safe to assimilate the pair to the phonetically parallel pairs); 5, in alternation with k , thus like a member of 6, but otherwise joined with h in 17; 6, the reciprocal group to 4; 7, all consonants above this line occur syllable-initially only, while those below (the sonorants) may be both initial and final; 8, voiced stops, may be second in two-consonant final clusters; 9, in alternation with those members of 4 in the same columns; 10, not syllable-final after homorganic vowels; 9 and 10 are the 'sonants'; 11, in the alternations $p \sim p'$, $p \sim b$, $p \sim m$; 12, in the alternations $t \sim t'$, $t \sim d$, $t \sim n$; 13, in the alternation $c \sim c'$; 14, in the alternations $c \sim y$, $k \sim y$; 15, in the alternations $k \sim k'$, and $x \sim x_w$, $k \sim k_w$ (and $k' \sim k_w'$?); 16, not before u (except w ?), where replaced by the members of 15 in the same row, and in the alternations $x_w \sim w$ and $k_w \sim w$ (and $k_w \sim k_w'$?); 17, in the parallel alternations $h \sim x$ and $ʔ \sim k$; 18, not in any relation to any others, except that they are grouped below the line 7.

All the entities with double articulation— p' , t' , p' , t' , c' , k' , k_w' , c , k_w , x_w function as units in all these relationships and seem clearly definable as unit phonemes.

The foreign clusters pl , pr , tr , kl , kr , fr (f appears only in clusters, for elsewhere Spanish or English f are replaced by p'), when fully assimilated, will create a group l , r characterized not only negatively (18), but positively as phonemes that appear as second elements of initial clusters, will separate p , t , k from the other consonants in group 4 as a subgroup that appears first in two-consonant initial clusters, and will alter the definition of the syllable. But the clusters are so rare and out of the general pattern, that they are best considered as not parts of the system.

Some phonetic details may now be given. The phonemes of group 1 are fortis and voiceless; p' , t' are strongly aspirated (almost $[p^x]$, $[t^x]$), and l , s have the normal amount of friction. In group 3, x and x_w are almost frictionless, while h has strong friction; acoustically x and h are much alike because of this reversal of the more usual relations in respect to amount of friction. Group 4 consists of relatively fortis stops, initially sometimes slightly aspirated (except k_w , which has partially voiced labial release). The phoneme marked 5 is a very weak glottal stop or hiatus, and goes phonetically with group 6. In group 6 we have sounds made with lenis closures in both the glottal and other positions, and nonforceful releases, the glottal release following the other one at an appreciable interval. There is none of the snapping or crackling effect found in the glottalized phonemes of some other languages ("explosive glottalized"), and often, especially between vowels, the effect is that of a nonglottalized voiceless lenis ("intermediate"). The phonemes of group 8 are fully voiced lenis stops between vowels, are less voiced initially, where they

appear only in recent loan words, and are voiceless lenis, with long closure, and nonreleased, in syllable-final position. The phonemes of groups 9, 10, 18 are always fully voiced.

Group 11, and p', are made with firm lip-closure, but p' with a few speakers has the free variants [pφ] or [φ]. Group 12, and t', ɬ, ɮ, are dentalveolar—not as far forward as Spanish t, d, ɮ, n, but further forward than the usual English ones; t' is never [tθ] or [θ]; ɬ is nonfricative, 'neutral' (with [ə]-timbre) between vowels, and 'dark' (u-timbre) in syllable-final. Group 13 are alveolar affricates: c is usually [č], but there is much free variation to [ts_v] or [ts], and some speakers consistently use less palatal varieties before e, o than before other vowels; c' is lenis [č'] before the high vowels, and lenis [ts'] elsewhere. The isolated phoneme s goes with these two phonetically, often having a slight effect of [š], especially before i; in rapid speech between vowels it may be slightly lenis; r goes here phonetically, too, being an alveolar single tap, like Spanish short r, whether in English or Spanish loans. The single member of 14 is a nonfricative semivowel before vowels, like English [y]; syllable-final after a vowel it is a nonsyllabic high front vowel (§2:232). The phonemes of 15 are in mid-velar position, with little variation due to following vowels, except slight fronting before i; x is nonfricative and nonrasping (like New Mexican Spanish [x], spelled j). In group 16 we have mid-velar sounds with accompanying labialization: w is a fully rounded nonspirantal semivowel before vowels, and a nonsyllabic high back vowel in syllable final (§2:232); x_w is Taos x plus gradually voiced labialization; k_w has gradually voiced labialization following the midpalatal release; k'_w has entirely voiceless labialization, with delabializing simultaneous with the glottal release, and is very lenis with even weaker than usual glottalization. The phonemes of 17 are glottal, h being rather fricative, as stated; ʔ is usually zero initially, but in emphatic speech before a loud-stressed vowel a real glottal stop is heard; between vowels it is a weak glottal stop or hiatus, and after a syllable-final consonant it is like the glottal part of a glottalized stop; but while -at' a is syllabified [a-t'a], -adʔa is [adʔa].

The phonetics of syllables not beginning with any phoneme other than ʔ is such that ʔ must be postulated every time; in this way we can clearly account for the phonetic distinctions between [a-na] and [an-a], [a-wa] and [aw-a], [ia] and [i-a], and for the fact that phonetic [a-] becomes [(ʔ)a] on addition to a prefix, as [nə-ʔa].

§2:3. *Morphophonemics*. Under this heading will be listed and described all the alternations between phonemes of a regular nature found to exist in related morphemes. These may be automatic, taking place in all morphemes under similar phonemic conditions, and determined by the phonemic set-up of the language, or conditioned (ablaut), appearing only in certain morphemes or morpheme classes. There are few morphophonemic changes of either kind in Taos, but the latter kind especially are found in some common stems, and are of historical interest.

§2:31. *Sandhi*. There are two types of sandhi in Taos, internal and external.

Internal sandhi takes place between the parts of a word (minimum free form), external sandhi between words.

There are these cases of special internal sandhi: a) The loud stress of a stem becomes a medial stress when subordinated to another stem in compounding (§2:32). b) The final vowels of certain kinds of syllables are elided on the addition of suffixes or compounded elements (§2:33); two such vowel elisions may take place, to form the permitted two-consonant final clusters. c) The suffixes *-yá* and *-ya* (§3:33) combine with such vowel-losing syllables, after loss of the vowel, by assimilation of *y* to preceding *l*, *m*, *n*, and by loss of *y* after *b*, *d*; after *-a*, *-yá* and *-ya* give *-ʔá* and *-ʔa* (§2:34). Otherwise, there are no changes in morphemes in combination.

External sandhi involves no change in words except that a final vowel (usually *-a*, occasionally *-u*, the cases being the same as those with vowel-loss in internal sandhi) may be lost, so that statistically there are many words with final consonants in connected speech, these words having one syllable less than normally. Occasionally the elision seems to be accompanied by accentual change. But there is considerable free variation in this phenomenon, and a more exact statement is not now possible. It may be that the elided forms are found in more rapid utterances.

§2:32. *Accentual morphophonemics.* Functioning accentual changes are found whenever in composition or suffixation a loud stress comes before another loud stress which takes precedence, so that the first becomes medial; or when a low tone is final in a word, following another low, in which case the last becomes weak-stressed (verb forms only). There are also the regular changes in position of the loud stress as between the singular and plural absolute forms of nouns, especially in the nouns with stem-vowel reduplication; these changes are taken up in detail in §3:21.

In inflected forms the stem usually has the loud stress; in compounds the last stem has the loud stress, the others being medial or weak; but if the last stem is a verb, it is often weak-stressed. In inflection, changes in stress from stem to suffix take place before some suffixes; to list them all would be beyond the scope of this work.

Nonfunctioning changes are found in a few of the ablauting verbs: normal to low (symbol *â*) in *p'ʔuy* "he blew" (intrans.) ~ *p'ùci* "he blew" (trans.); high loud to normal medial (symbol *ǎ*) in *t'ó* "he did, danced" ~ *t,ǒʔone* "dance" (noun), and *t'ê* "he cut" ~ *t,ǐǐʔlene* "act of cutting"; low loud plus weak to low medial plus normal loud (symbol *â+*) in *mâp'əw* "he squeezed" ~ *mâp'əwma* "it was squeezed," *mât'emə* "he hit" ~ *mât'emma* "it was hit," *ʔùp'uo* "he dropped" ~ *kùp'luone* "act of dropping." There is also low to normal (symbol *â*) in *t'ǒ* "he found" ~ *t'ǒne* "act of finding." And there are probably others.

§2:33. *Vowel morphophonemics.* Functioning vowel ablaut is found in the absolute forms of nouns with reduplicating stem vowel, if the vowel is nasal, in which case the reduplicated vowel is the corresponding nonnasal; or if the stem

has a vowel cluster, in which case the reduplicated vowel is the second of the cluster (iɛ becomes e). See §3:21 for further details.

In internal sandhi stems of two syllables whose second syllable consists of one of the sonorants plus a vowel, usually a, lose this vowel on the addition of certain suffixes beginning with a consonant, or in composition with following stems (k'olə "he ate" ~ k'olhu "he is eating"); this brings about the syllables ending in a consonant. When an apocopated form of this kind enters into combination with the syllable -gə (and possibly others beginning with b and d), a second apocopation may take place, giving two-consonant finals, as h'iʔangə "why, because," alternating with h'iʔang. The apocopation of a final vowel can only take place after sonorants, and in the case of double apocopation, the second takes place only after voiced stops. In external sandhi these vowel losses are optional, but in internal sandhi they are regular and automatic.

Nonfunctioning vowel ablaut is found principally in the second vowel of disyllabic verb stems. The most common is -ə ~ i (symbol əⁱ), for which twenty-nine examples have been found, all in very common words, and to which may be added twelve cases of final consonant (presumably from consonant plus final elidable vowel) alternating with consonant plus i, as indicated in §2:34. The change is from the preterit to the negative preterit, and is found in all the verbs described below that show a consonant change in these forms, and in others: c'ələ "he caught" ~ wòc'əli "he didn't catch"; k'olə "he ate" ~ wòk'oli; k'wilə "he shut" ~ wòk'wili. Other changes are: -ə ~ a (symbol ə^a) in p'ələda "he lost" ~ stative p'ələda; -ə ~ ɥ (ə^ɥ) in ʔ'ələ "it shook" ~ ʔ'ələɥ "he shook it"; -ɛ ~ ə (ə^ɛ) in p'alunɛ "it was burning" ~ p'alunə "it was being burned"; -i ~ a (i^a) in l'əpi ~ l'əba; -ɔ ~ i (ɔⁱ) in x'əwɔ "he picked" ~ wòx'əwi, and in two other verbs.

Alternations in the first or only stem vowel are: ə ~ uo ~ u (symbol ə^{u(ɔ)}) in x'wəy ~ wòx'woki ~ x'wuyma; ə ~ əo (ə^o) in kəwɔ "he swallowed" ~ wòkəowi, and in two other cases; ia ~ iw (i^w) in mo-w'ia "he gave" ~ mo-wòwiw; i ~ i (iⁱ) in w'ɪŋɛ "he stopped" ~ stative k'w'ɪnemə; uo ~ u-yə (uo^u) in k'uo "he put" ~ wòk'uy, and two other verbs.

§2:34. *Consonant morphophonemics.* Automatic consonant changes are those resulting from the limitation on the appearance of k_w, x_w (and probably k_w') before u, so that k, x (and k') replace them when a vowel ablaut changes the stem vowel to u. Certain internal losses of -y after vowel ablaut resulting in a cluster (as uy > uo) are also probably automatic, as the clusters seem not to be followed by y in stems.

Functioning, but not automatic, are the changes of -yá (future suffix) and -ya (pronominal suffix in certain third person subject-object combinations): these replace y by l, m, n, after -l, -m, -n, by ʔ after -a, and drop it after -b and -d.

There are two types of consonant ablaut in verbs, neither now functioning. The first affects initial consonants of the stem, the second the internal consonant (in originally disyllabic stems). The words undergoing these alternations are common, so that ablaut recurs frequently.

Initial consonant ablaut takes place in a number of verbs having p' , t' , c' , k' , ʔ , h , m , w , y in the third singular (subject of gender I or III) preterit active form, which is the basic stem of the verb (appearing without prefixes or suffixes). These initials change in the third singular resultative stative, the basic stative stem (usually without prefixes, but often with a suffix), as follows: $p' > p$, $t' > t$, $c' > c$, $k' > k$, $\text{ʔ} > k$, $h > x$, $m > p$, $w > k_w$, $w > x_w$, $y > c$. In a few cases there is no stative, but the verbal noun, which is regularly based on the stative stem, shows the ablaut. Examples are (each of the changes is substantiated by from two to seven examples): $p'laoda$ "he lost it" $\sim p'laoda$ "it is lost"; $t'laṃa$ "he helped him" $\sim t'laṃa$ "he was helped"; $t'ó$ "he danced" $\sim t'lo$ "dance"; $c'li$ "he tied it" $\sim c'li$ "it is tied"; $k'loḷa$ "he ate it" $\sim k'loḷa$ "it was eaten"; $\text{ʔ}laṃa$ "he did, caused to . . ." $\sim k'laṃa$ "it is done" (and in the numerous "causatives" formed with $\text{ʔ}laṃa$ as second element); $h'oy$ "he took it" $\sim x'oyṃa$ "it has been taken"; $mò$ "he brought it" $\sim na$ - $pòṃa$ "it has been brought"; $w'ona$ "he arrived" $\sim k'w'onene$ "arrival"; $w'oya$ "he took it off" $\sim x'w'oyṃa$ "it has been taken off"; $y'ia$ "he walked" $\sim c'ia$ - $\text{ʔ}ane$ "a walk." In a few cases, the verb is a compound, or has a prefix, so that the changes appear internally: $màp'əw$ "he squeezed" $\sim m̀p'əwṃa$ "it has been squeezed"; $t'ahone$ "he won" $\sim t'ax'onema$ "it is won." The formula used to indicate these initial changes is $^\circ$ after the symbol (with the mark of glottalization omitted): p° , t° , c° , k° , ʔ° , h° , m° , w° for $w \sim x_w$, w° for $w \sim k_w$.

Internal ablaut affects the second consonant of the basic stem, which changes in the third singular negative preterit (the basic negative and subordinate form). The pairs are: $b \sim p$, $d \sim t$, $y \sim c$, $y \sim k$, $m \sim p$, $n \sim t$, $\text{-zero} \sim w$, $\text{-zero} \sim y$. In addition there are the cases of preterit in final vowel, and negative preterit with added -ki , -li , -mi , -pi , -ti ; these look like the $\text{-zero} \sim w$, $\text{-zero} \sim y$ cases, i.e., they may represent an original consonant plus facultatively lost -a alternating with ablauted consonant -i , and are best considered as cases of ablaut rather than of suffixing. Some of the changes are represented so far by only one example, but $\text{-zero} \sim \text{-mi}$ has sixteen, and others two or more; examples are (with w -negative prefix): $\text{ʔ}ṣiaba$ "he kicked" $\sim wò$ - $\text{ʔ}ṣiapi$ "he didn't kick"; $p'laoda$ "he lost" $\sim wòp'laoti$ "he didn't lose"; $h'oy$ "he said yes, accepted" $\sim wòh'oyci$; $h'oy$ "he sat down" $\sim wòh'oyki$; $m̀t'ema$ "he hit" $\sim wò$ - $m̀t'epi$; $x'ona$ "he beat" $\sim wòx'onoti$; $t'la$ "he broke" $\sim wòt'law$; $\text{ʔ}u$ - $k'lo$ "he planted it" $\sim \text{ʔ}uwòk'owi$; $p'la$ "he made" $\sim wòp'layi$; $t'lao$ "he gathered" $\sim wòt'laoki$; $\text{ʔ}o$ "he washed" $\sim wò$ - $\text{ʔ}oli$; $m̀y$ "he saw" $\sim wò$ - $m̀yimi$; $\text{ʔ}ucu$ "he met" $\sim wò$ - $\text{ʔ}ucumi$; $p'lao$ "he caught" $\sim wòp'laomi$; mo - $h'lo$ "he urinated" $\sim mo$ - $wòh'lopi$; mo - $c'ia$ "he talked" $\sim mo$ - $wòc'ia$. The same type of ablaut, but functioning differently, is found in: $h'ia$ - ba "it broke" $\sim h'ia$ - pi "he broke it"; $c'laoda$ "he entered" $\sim c'laoti$ "he brought it in"; $p'lu$ - y "he blew" $p'lu$ - ci "he blew upon . . ." Then we have also: $h'ia$ - $ba \sim h'ia$ - $pi \sim h'ia$ - $ṃa$ "it is cracked, broken"; and $h'epi$ "he stuck it on" $\sim h'eba$ "it has been stuck on." These changes are indicated in listing stems by b° , d° , y° ($y \sim c$), y° ($y \sim k$), m° , n° , -w , -y , and -ki , -mi , -pi , -ti .

3. MORPHOLOGY

§3:1. *General.* The morphology of Taos proceeds by combinations of morphemes, and is of two kinds, inflection and word-formation. Inflection consists of paradigmatic changes without change of morpheme class, while word-formation involves change of morpheme class or of basic meaning within the same class.

§3:11. *Morphological processes.* Taos employs the processes of affixation (prefixation, suffixation), stem-compounding, internal (morphophonemic) change, reduplication, and suppletion.

Prefixation is used to express categories (see §3:2 for definitions) of pronominal reference, status, and resolution. Suffixation is used for number, gender, dependence, tense-aspect, mode, voice. Stem-compounding is used for the expression of referential dependence. Internal change appears once to have functioned in expressing voice and status. Reduplication expresses, with suffixes, number and absolute dependence. Suppletion is found in a few cases of verbal number.

§3:12. *Morpheme classes.* The basic division of morphemes in Taos is into dependent and nondependent. Dependent morphemes are the affixes, which, in combination with the nondependent ones, and in sets of greater or less extent, form the paradigms of the language; they never occur by themselves as words, and have no lexical content, being grammatical modulators only. Nondependent morphemes are all others: they may exist as such, or with various affixes, and are divided into classes on the basis of the paradigmatic sets that they are inflected by, or of the lack of inflection. Inflected classes are substantives and verbs; particles are noninflected.

Substantives are divided into nouns, which have full inflection, numerals and demonstratives, with less inflection and different syntax, and nominals, with still less inflection.

Verbs are inflected for different categories and with, on the whole, different paradigmatic sets from nouns. There are some stems which function as both nouns and verbs, but generally a stem is either one or the other, and the affixes always indicate clearly which it is.

Particles are divided into free particles—personal and some other pronouns, and adverbial expressions; and attached particles—the nonparadigmatic suffixes and prefixes.

§3:13. *Morphological categories.* The categories expressed in a language are determined by the paradigmatic sets which are found. The following classification is based entirely on such formal criteria, and function has been considered only in the selection of terms. In the discussion in §3:2 and 3:3 certain functional classifications are used for convenience, but it is clearly shown how they pattern formally.

Categories may be overt or covert. Overt categories are clearly indicated by morphemes in all forms of the paradigm, while covert categories can be recognized only by congruential patterns that appear under certain conditions. Most Taos categories are overt; the covert ones will be indicated.

§3:131. *Number and gender.* Number in Taos is of two kinds: dichotomous and trichotomous. Dichotomous number distinguishes singular from nonsingular (more than one, two+ plural) and is expressed, in combination with gender, by suffixes of nouns and demonstratives. It is also part of the complex category of pronominal reference. In a few verbs dichotomous number is expressed by suppletion, depending on the number of the object of the verb. Trichotomous number distinguishes singular, dual, and three+ plural, and is part of pronominal reference.

There are three genders, designated as I, II, III. Gender I is almost entirely composed of animate nouns, while II and III are both inanimate; there is no way to define these two semantically, as both include the same kinds of words. Gender is expressed, in combination with dichotomous number, by suffixes of nouns and demonstratives, and also as part of pronominal reference.

Place-gender, designated as III_n, is a subdivision of III; it is a covert category, recognizable only by the special prefixes of pronominal reference applying to these nouns.

§3:132. *Pronominal reference.* This complex category involves the expression of number, gender, and person by means of unit prefixes, and applies to nouns and verbs. There are sets of prefixes expressing person (first, second, third), trichotomous number, and, for the third person, gender, and varying with the dichotomous number and gender of the referent. In nouns the prefixes refer to the possessor and vary with the noun, so that this is a category of possession. In verbs the prefixes refer to the subject and vary with the object.

A special subdivision is reflexive pronominal reference, where the subject is identified with the object, or the possessor is emphatically identified.

§3:133. *Dependence.* This is a category of substantives; absolute dependence is characterized by gender-number suffixes (except for nominals), and expresses the subject and indirect object of a verb; vocative dependence is characterized by the absence of suffixes, and exists only for nouns of gender I used in direct address; referential dependence is characterized by compounding of the noun-stem with verbs and particles, expressing the object of the verb or the referent of the particle.

§3:134. *Status.* This is a category of verbs, and is expressed by prefixes, including zero. Normal status, characterized by zero prefix, expresses an ordinary statement of fact. Negative status expresses negation by a prefix before the stem (or compounded object) and following (occasionally contracting with) the prefixes of pronominal reference; some verbs ablaut the second stem-consonant in the negative status. Narrative status is used in tales and the like for the actor or hero, and is expressed by a prefix following those of pronominal reference and preceding the negative one. Definite status emphasizes the reality of a future or of a temporal subordinate action; its suffix follows the negative one and precedes the stem or compounded object.

The prefixes of the comparative and interrogative statuses precede those of pronominal reference, the interrogative coming first. The comparative expresses

greater degree of an "adjectival" notion or greater quantity of a nominal notion: the prefix may also be compounded with the verb, in which case it comes immediately before it, and can no longer be regarded as a paradigmatic prefix. Interrogative status is expressed by the special prefixes only when no interrogative pronoun is present.

§3:135. *Tense and aspect.* These categories of temporal location (tense) and extension (aspect) occur only in certain combinations with each other, and are expressed by suffixes. Present is present-durative, with the aspectual notion more prominent than that of time. Past is durative and nonpresent and nonfuture. Preterit, expressed in the active by zero suffix, is momentary or resultative, with usually definite past connotation. Impending is a durative-inceptive future. Future is a momentary future. The term resultative is used for the stative tense-aspect corresponding to the active preterit.

§3:136. *Mode.* This category indicates objectivity or subjectivity as regards the action on the part of the speaker. It is indicative (zero-suffix), or subordinate; the latter is divided into relative, conditional, temporal, expressed by suffixes; the subordinate employs the negative stem when this is ablauted from the basic stem.

§3:137. *Voice.* This category defines the manner in which the object is affected by the verb. Active voice, expressed by zero suffix, indicates that the object is acted upon by an actor. Stative voice indicates the resulting state or condition of the object as affected by the action of the verb expressed without designating an actor. Stative voice is divided into essive ("passives" of active verbs, "intransitives"), descriptive ("adjectives"), and intensive (special form of "adjectives").

§3:138. *Transitivity.* All Taos verbs are "transitives" in the English sense, but have a partially covert category of transitivity delimiting whether the action may be expressed both with and without an actor, or only without one. Unipersonal transitivity indicates action without an expressed actor, and such verbs can have only an "impersonal" third person singular subject; they correspond to English "intransitives," and have stative voice only: thus, ?owámą "I am" is really "there performs a being upon me," cf. ?omùya "he sees me," ?o in both cases meaning third singular subject plus first singular object. Multipersonal transitivity expresses the actor and such verbs can have "personal" subjects of all three persons; they correspond to "transitives," and have active voice and also (person-limited) stative voice (equal to "passive"). The transitivity of a verb can sometimes be recognized only by the kind of pronominal reference it takes, though most unipersonal verbs have a stative voice suffix identifying them.

§3:139. *Resolution.* This category is entirely covert, and can be deduced only from the pronominal reference of a verb. It is direct or possessive. Direct resolution permits a verb to resolve to a direct object unpossessed. Possessive resolution limits the verb to possessed objects; only unipersonal verbs are found in possessive resolution. Thus: ?omùya "he sees me," ?owámą "I am," but ?anwámą "I have it,"

literally “*there performs a being on something of mine*” (ʔaŋ- “my”). Multipersonal verbs may express a possessed object, except when the subject is third person singular, only in absolute or subordinate form: timùhu ʔaŋkʼana “*I see my mother,*” literally “*I-her-see my-mother,*” as compared with tikʼamùhi “*I see the mother.*” See chapter 4.

§3:2. *Substantives.* Of the substantives only nouns are inflected for gender, number, pronominal reference, and dependence; demonstratives are not inflected for dependence and not regularly for pronominal reference; some numerals show gender distinctions, but are not otherwise inflected; nominals are restricted to one type of use. Noun inflection will be described, and then the special restrictions of other substantives will be indicated.

§3:21. *Declension.* Nouns are identifiable as to gender and number by the singular and nonsingular absolute forms, which pair into “declensions” on the basis of the manner in which the suffixes are attached to the stem, and of the accentual patterns.

The suffixes for gender I are singular -na, nonsingular -nã and -nemã. Those for gender II are -nã and -nemã in the singular, and -ne in the nonsingular. For gender III (and III_n) we have singular -na, nonsingular -ne, and indeclinable abstracts and verbal nouns in -ne. The declensions are 1) -na ~ -nã, 2) -na ~ -nemã, 3) -nã ~ -ne, 4) -nemã ~ -ne, 5) -na ~ -ne, 6) -ne. The suffixes may be attached directly to the stem, or by means of a reduplication of the stem vowel: a single oral vowel is reduplicated as such immediately after itself, with intervening ʔ, and nasal vowels and clusters change as stated in §2:33, the ablaut form being separated from the preceding unablauted form by ʔ; thus, k₁oʔʼone “*washing*” <ko-, p₁oʔʼone “*earth*” <pq-, ʔiaʔʼane “*corn*” <ʔia-; reduplication takes place only in stems ending in a vowel.

The declensions can be subdivided by accentual pattern; in the following table, the hyphen (-) indicates a syllable, ʼ ʼ ʼ ʼ being the kinds of loud- or weak-stressed syllables (possibility of two kinds of stress thus, ʼ⁺); ʔR is the reduplicated stem vowel. One or more syllables, loud- or medial-stressed, or weak-stressed, may precede the accentual pattern shown. The subdivisions of each declension are designated by letters, the same letter indicating a similar accentual pattern; the first letter refers to the singular, the second to the plural (declension six has no distinction): a) one loud-stressed syllable before the suffix; b) one medial-stressed, one loud-stressed; c) one medial, one weak, one loud; d) two syllables before the suffix, the first loud-stressed; e) one medial, one loud, one weak; f) the third syllable before the suffix loud-stressed; g) one medial-stressed, with the loud stress on the reduplication, before the suffix; h) medial two syllables before the reduplication; i) medial three syllables before the reduplication.

Singular	Nonsingular	Examples
Declension 1, gender I.		
1aa. ʼna	ʼnã	c ₁ upʼana “ <i>judge,</i> ” c ₁ upʼanã

1bd.	l ^l -na	l ^l -na _q	k _i ay ^l una "mother's sister," k ^l ayuna _q
1ce.	l ^l -na	l ^l -na _q	c _i ibik ^l ina "robin," c _i iblikina _q
1cf.	l ^l -na	l ^l -na _q	t _u cull ^l ona "humming bird," t _u culon _q
1db.	l ^l -na	l ^l -na _q	p ^l oyona "beaver," p ^l oylon _q
1dd.	l ^l -na	l ^l -na _q	m ^l akuna "grandchild," m ^l akuna _q
1ff.	l ^l -na	l ^l -na _q	n ^l abahuna "Navaho," n ^l abahuna _q
1gd.	l ^l -na	l ^l -na _q	k _i ow ^l una "colt," k ^l ow ^l una _q
1hd.	l ^l -na	l ^l -na _q	c _i iwyu ^l una "bird," c _i iwyuna _q
1if.	l ^l -na	l ^l -na _q	c _i iliyo ^l ona "bat," c _i iliyona _q
Declension 2, gender I.			
2aa.	l ^l -na	l ^l -nem _q	k ^l ana "mother," k ^l anem _q
2bb.	l ^l -na	l ^l -nem _q	l ^l w ^l ena "woman," l ^l w ^l enem _q
2bd.	l ^l -na	l ^l -nem _q	k _i oll ^l ena "wolf," k ^l olenem _q
2db.	l ^l -na	l ^l -nem _q	c _i w ^l ena "eagle," c _i w ^l enem _q
2dd.	l ^l -na	l ^l -nem _q	k _w ^l ianena "bitch," k _w ^l ianenem _q
2gg.	l ^l -na	l ^l -nem _q	? ^l una "son," ? ^l unem _q
2hh.	l ^l -na	l ^l -nem _q	l _i uli ^l ina "old man," l _i ulinem _q
Declension 3, gender II.			
3aa.	l ^l -na	l ^l -ne	l _i owat ^l una "chief's cane," t ^l une
3bb.	l ^l -na	l ^l -ne	c _i iat ^l una "legging," c _i iat ^l une
3db.	l ^l -na	l ^l -ne	? ^l ia ^l ona "willow," ? ^l iat ^l one
3dd.	l ^l -na	l ^l -ne	t ^l awana "wheel," t ^l awane
3dh.	l ^l -na	l ^l -ne	h ^l oluna "lung," h ^l olune
3fc.	l ^l -na	l ^l -ne	h ^l ulolina "weapon," h ^l uloline
3fi.	l ^l -na	l ^l -ne	y ^l uwolana "skirt," y ^l uwolane
Declension 4, gender II.			
4aa.	l ^l -na	l ^l -ne	c _i inem _q "eye," c _i ine
4bd.	l ^l -na	l ^l -ne	piak _i anem _q "chest, heart," piak _i anene
4dd.	l ^l -na	l ^l -ne	p ^l ianenem _q "mountain," p ^l ianene
4gg.	l ^l -na	l ^l -ne	y _i o ^l onem _q "song," y _i o ^l one
Declension 5, gender III.			
5aa.	l ^l -na	l ^l -ne	k _w ^l ona "ax," k _w ^l one
5bb.	l ^l -na	l ^l -ne	p ^l o ^l ina "peach," p ^l o ^l ine
5bd.	l ^l -na	l ^l -ne	k _w ^l em _i una "carpenter's apron," k _w ^l em _i une
5cc.	l ^l -na	l ^l -ne	p _i ulul ^l una "plum," p _i ulul ^l une
5ce.	l ^l -na	l ^l -ne	c _i ap ^l ienena "yeast," c _i ap ^l ienene
5db.	l ^l -na	l ^l -ne	? ^l abena "cherry," ? ^l abene
5dd.	l ^l -na	l ^l -ne	c ^l unena "deerhide strip," c ^l unene
5gg.	l ^l -na	l ^l -ne	p _i i ^l ena "bed," p _i i ^l ene
5hb.	l ^l -na	l ^l -ne	c _i iak ^l ona "question," c _i iak ^l one
5hh.	l ^l -na	l ^l -ne	k _w ^l ex _i oc ^l ina "bracelet," x _i oc ^l ine
5if.	l ^l -na	l ^l -ne	m _i esotu ^l una "church," m _i esotune (variant; usually m _i esotu ^l une, 5ii)
5ii.	l ^l -na	l ^l -ne	c ^l owowo ^l ona "ankle," c ^l owowo ^l one
Declension 6, gender III (pl. form = sg. or collective)			
6a.	l ^l -na	l ^l -ne	c ^l one "liver"

6d.	l·ne	h'ælene "sickness"
6g.	l·ʔlRne	c,i'ʔline "knot"
6h.	l·ʔlRne	m uoli'line "return"

Some of these combinations are rare (sometimes only one example), but most are frequent. There are also nouns occurring only in the singular (or in the non-singular) which fit half of these patterns. Finally, there may be other combinations than those listed, fitting into the same framework of patterns.

§3:211. *Stem forms.* The forms given in the preceding section are absolute forms. The vocative and referential dependences are expressed by the stem form, which is usually that part of the word before the suffix. The reduplicated vowel, if there is one, is not part of the stem; and in many cases an *-e-* preceding the suffix, if part of the syllables *-be-*, *-de-*, *-le-*, *-me-*, *-ne-*, *-we-*, is a connecting suffix and not part of the stem, thus: pòb|enemą "flower," stem pòb-; ʔòd|enemą "chin, jaw," stem ʔòd-; n|ą|enemą "aspen," n|ą|-; kʷ|ianena "bitch," kʷ|ian- (but c'ùn|ena "coyote," c'ùn|e as vocative and proper name); ɰw|ena "woman," ɰw-.

Henceforth nouns will be given with a hyphen after the stem, and a formula designating the gender and declension, thus: tòm-|ena I.2bb "father," which means that the word for "father" has the stem tòm-, is of gender I, and has a plural tòm|enemą.

§3:22. *Possession.* The possessed noun is expressed by prefixes of pronominal reference, falling into three sets according to the gender of the noun. Expression of possession by the prefix and the absolute form of the noun is, however, found only in some cases, especially of direct address. More usual is an expression consisting of prefix, stem, and what at first appears to be a suffix: this turns out to be the relative subordinate mode of the verb wá "to be," so that one really says "the one who is my friend" (or, most literally, "there takes place a being upon one who is my friend"). There is also another "suffix of possession" which has not so far been identified with any verb stem. For convenience of reference, the following full inflections of possessed nouns will be given in the verb-phrase form with wá.

Gender I. p|uy-ena I.2db "friend":

Person, No. of Possessor.	Singular Possessed Noun.	Nonsingular Noun.
Singular	1 ʔąp uywá?i "my friend"	ʔąąp uywá?ina "my friends"
	2 kąp uywá?i "your friend"	kąp uywá?ina "your friends"
	3 ʔąp uywá?i "his friend"	ʔąp uywá?ina "his friends"
Dual	1 kąąp uywá?i "friend of us two"	kąąp uywá?ina "friends of us two"
	2 mąąp uywá?i "friend of you two"	mąąp uywá?ina "friends of you two"
	3 ʔąąp uywá?i "friend of them two"	ʔąąp uywá?ina "friends of them two"

Plural	1	kip ₁ uywá'í "friend of us three ⁺ "	kimp ₁ uywá'ina "friends of us three ⁺ "
	2	māp ₁ uywá'í "friend of you three ⁺ "	māmp ₁ uywá'ina "friends of you three ⁺ "
	3	'ip ₁ uywá'í "friend of them three ⁺ "	'imp ₁ uywá'ina "friends of them three ⁺ "

Gender II. kəd^lenemā II.4aa "door":

Singular noun: ?ānāmkəd^lwá'ina "my door," kām-, ?ām-, kānām-, mānām-, ?ānām-, kim-, mām-, 'im-. Plural noun: ?ānāwkəd^lwá'í "my doors," kāw-, ?āw-, kānāw-, mānāw-, ?ānāw-, kiw-, māw-, 'iw-.

Gender III. k^wl^o-na III.5aa "ax":

Singular noun: ?ānk^wowá'í "my ax," kā-, ?ā-, kān-, mān-, ?ān-, ki-, mā-, 'i-.

Plural noun: ?ānāwk^wowá'í "my axes," kāw-, ?āw-, kānāw-, mānāw-, ?ānāw-, kiw-, māw-, 'iw-.

In addition to the above inflections, we have the special forms for place-gender nouns. There is no way to identify these nouns except by this special manner of pronominal reference; for the most part they involve a meaning or connotation of place (see §5:125). Their pronominal reference makes no distinction between singular and nonsingular noun; an example is t^ləna III_n.5aa "house":

?ānna^t 'əwá'í "my house, my houses," kānā-, ?ānā-, kānna-, mānna-, ?ānna-, kinā-, mānā-, 'ina-.

Reflexive pronominal reference is expressed by the same sets of prefixes as above, with mo- after them (but before nā-): ?ānmop₁uywá'í "my own friend," ?ānmona^t 'əwá'í "my own house."

To sum up, there are these sets of 'possessive prefixes':

A1—?ān-, kā-, ?ā-, kān-, mān-, ?ān-, ki-, mā-, 'i-, used with singular nouns of genders I and III, the accompanying 'suffix' being -wá'í.

A2—?ānām-, kām-, ?ām-, kānām-, mānām-, ?ānām-, kim-, mām-, 'im-, used with singulars of gender II and nonsingulars of I, with 'suffix' -wá'ina.

A3—?ānāw-, kāw-, ?āw-, kānāw-, mānāw-, ?ānāw-, kiw-, māw-, 'iw-, used with nonsingulars of genders II and III, with 'suffix' -wá'í.

A1n—?ānna-, etc., used with singulars and nonsingulars of III_n (place-gender) nouns, with 'suffix' -wá'í.

A11, A12, A13, A11n—?ānmo-, etc., ?ānāmmo-, etc., ?ānāwmo-, etc., ?ānmona-, etc., used as A1, A2, A3, A1n respectively, for reflexive possession.

It may be noted that the various sets are similar and built up of more or less recognizably identical material; this historical insight cannot be further pursued here.

The other 'suffixes' of possession referred to are -k^loyi and -k^loyina (corresponding to -wá'í and -wá'ina), as in ?ān'ùk^loyi "my son"; the example is from a tale, and the rarity of the form otherwise suggests that it is archaic.

§3:23. *Numerals, demonstratives, nominals.* Substantives other than nouns show deviations from the general pattern in some ways. A few of the numerals distinguish gender: w'ɛmə *"one"* I, w'ibə II and III; p'oyuo *"three"* and p'ʌnyuo *"five"* add -nə for gender I. Apparently numerals are not used in pronominal reference or in dependence, but only in apposition with nouns, so that one says w'ʌinə ʔənnət' ɪwámə *"I have two houses,"* literally, *"two I have houses"*; w'ɛmə tis'ɛnmɨ *"I saw one man,"* literally, *"one I saw a man"*; etc.

Demonstratives show gender and number as do nouns, but, like numerals, are used in appositional constructions, and are not inflected for pronominal reference or dependence (except with attached particles): y'ʌna I and III sg., y'ʌnemə I pl. and II sg., y'ʌne II and III pl., *"this"*; y'ɛna, y'ɛnemə, y'ɛne *"that"* (less remote); w'loti, w'lonemə, w'one *"that"* (more remote). The ending of w'loti is paralleled by that of y'ʌti, which means *"that, that yonder,"* but for which no other forms were obtained.

Nominals are forms that come close to being adjectives in the Indo-European sense. They exist only as complements of the verb *to be* (or possibly some other "intransitive" verbs), and show the pronominal reference of the noun object to which they refer, but never occur in the absolute form. Thus, *"he is naked"* is k'ipidəwámə, and k'ipidə is given as the translation for *"naked"*; the verbal phrase is then literally *"there takes place a being upon a naked one."* The number of such nominals is not great.

§3:3. *Verbs.* Verbs are conjugated by sets of prefixes (corresponding to the possessive sets for nouns), indicating their pronominal reference. All the categories of a verb take the same set of prefixes under the same conditions, so that the basic stems and the prefix set (or sets), depending on the complement of the verb, are all that is needed to supply any necessary form. The prefix sets will be presented first, then the basic stems, then the paradigmatic suffixes.

§3:31. *Subject-object conjugation.* The prefixes indicating subject and object fall into three main sets of nine forms each, not all different, which will be designated as B1, B2, B3, corresponding to A1, A2, A3. They are shown here with a verb in its basic form, the preterit, the same verb being used for all three: c'lowə *"to taste, try, measure"*:

B1. Object of verb a singular noun of genders I or III (including nouns of declension 6 in -ne), subjects as indicated:

Person	Singular Subject	Dual Subject	Plural Subject
1	tic'lowə <i>"I tasted it"</i>	ʔənc'lowə	ʔic'lowə
2	ʔoc'lowə	mənc'lowə	məc'lowə
3	c'lowə (zero prefix)	ʔənc'lowə	ʔic'lowə

B2. Object a singular noun of gender II or a nonsingular noun of gender I:

1	pic'lowə	ʔəpənc'lowə	ʔipic'lowə
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2	ʔic'lowa	maɣɛnc'lowa	maɣic'lowa
3	ʔic'lowa	ʔaɣɛnc'lowa	ʔipic'lowa

B3. Object a nonsingular noun of genders II or III:

1	ʔoc'lowa	kanc'lowa	kiwc'lowa
2	kuc'lowa	maɛnc'lowa	maɣwc'lowa
3	ʔuc'lowa	ʔanc'lowa	ʔiwc'lowa

These forms are much like the possessive prefixes, especially set B3, where the dual and plural are the same as in A3.

The set used when the object is of place-gender is B1n: tinɛ, ʔona, na; ʔanna, maɛna, ʔanna; ʔina, maɛna, ʔina.

When the object is other than third person, we have the following forms, constituting set C1:

Subject	OBJECT					
	Sing. 1st	Sing. 2d	Dual 1st	Dual 2d	Plural 1st	Plural 2d
Sg., Du., Pl. 1	—	ʔa	—	maɣɛn	—	maɣi
2	maɣ	—	maɣ	—	maɣ	—
3	ʔo	ʔa	ʔan	maɛn	ʔi	ma

When the verb is active, and the subject is ('personal') third person, there is also a suffix -ya, immediately following the stem: omɛya "he saw me"; this suffix becomes -la, -ma, -na after stem-final -l, -m, -n; after the future suffix -ya it becomes -ʔa: ʔomɛya "he saw me," ʔomɛya "you 1 will see him," ʔomɛyaʔa "he will see me."

From set C1 and the third person subject forms of sets B1, B2, B3 is constructed the following set ('B4') of 'subject' prefixes for 'intransitive' verbs (i.e., the unipersonal stative verbs, and the stative ['passive'] forms of multipersonal verbs), illustrated with c'ɛmama "to be new, young":

Person	Singular	Dual	Plural
1	ʔoc'ɛmama "I am young"	ʔanc'ɛmama "we 2 are young"	ʔic'ɛmama "we 3+ are young"
2	ʔaɛ'ɛmama "you 1 are young"	maɛnc'ɛmama "you 2 are young"	maɛc'ɛmama "you 3+ are young"
3 I	c'ɛmama "he is young"	ʔanc'ɛmama "they 2 are young"	ʔic'ɛmama "they 3+ are young"
3 II	ʔic'ɛmama "it is young"	ʔaɣɛnc'ɛmama "they 2 are young"	ʔipic'ɛmama "they 3+ are young"
3 III	ʔuc'ɛmama "it is young"	ʔanc'ɛmama "they 2 are young"	ʔiwc'ɛmama "they 3+ are young"

As has been indicated, the apparent subject is really the complement of a verb with 'impersonal' third person subject.

When the subject and object are the same, we have a set of reflexive prefixes;

certain verbs are always reflexive, and take these prefixes even when they have a noun object. The set, C11, is illustrated with $\text{?i}\dot{\text{e}}\text{le}\text{y}$ "to run":

	Singular	Dual	Plural
1	$\text{t}\dot{\text{a}}\text{?i}\dot{\text{e}}\text{le}\text{y}$ "I ran"	$\text{k}\dot{\text{a}}\text{n}\text{?i}\dot{\text{e}}\text{le}\text{y}$ "we 2 ran"	$\text{kim}\dot{\text{a}}\text{?i}\dot{\text{e}}\text{le}\text{y}$ "we 3+ ran"
2	$\text{?}\dot{\text{a}}\text{?i}\dot{\text{e}}\text{le}\text{y}$ "you 1 ran"	$\text{m}\dot{\text{a}}\text{n}\text{?i}\dot{\text{e}}\text{le}\text{y}$ "you 2 ran"	$\text{m}\dot{\text{a}}\text{m}\dot{\text{a}}\text{?i}\dot{\text{e}}\text{le}\text{y}$ "you 3+ ran"
3	$\text{mo}\text{?i}\dot{\text{e}}\text{le}\text{y}$ "he ran"	$\text{?}\dot{\text{a}}\text{n}\text{?i}\dot{\text{e}}\text{le}\text{y}$ "they 2 ran"	$\text{?im}\dot{\text{a}}\text{?i}\dot{\text{e}}\text{le}\text{y}$ "they 3+ ran"

The dual is like B3; in the plural there is free variation between the forms given and kimo- , $\text{m}\dot{\text{a}}\text{mo-}$, ?imo- (by analogy with the third singular?).

§3:311. *Two objects.* When two objects are involved, one "direct," the other "indirect," we get on the whole forms that are identical with those for one object. With the "direct" object third person singular of any gender, the following forms have been found (set D1):

INDIRECT OBJECT (GENDER I)

Subject	Singular			Dual			Plural		
	1	2	3	1	2	3	1	2	3
Sing. 1	$\text{t}\dot{\text{a}}\text{-}$	$\text{k}\dot{\text{a}}\text{-}$	$\text{t}\dot{\text{a}}\text{-}$?	$\text{m}\dot{\text{a}}\text{p}\dot{\text{e}}\text{n-}$	pi-	?	$\text{m}\dot{\text{a}}\text{pim-}$?ipim-
	$\text{m}\dot{\text{a}}\text{m-}$	$\text{?}\dot{\text{a}}\text{-}$	$\text{?}\dot{\text{a}}\text{-}$	may-	$\text{m}\dot{\text{a}}\text{p}\dot{\text{e}}\text{n-}$?i-	may-	?	$\text{m}\dot{\text{a}}\text{pim-}$
	?o-ya	$\text{?}\dot{\text{a}}\text{-ya}$	-ya	$\text{?}\dot{\text{a}}\text{n-ya}$	$\text{m}\dot{\text{a}}\text{n-ya}$	$\text{?}\dot{\text{a}}\text{n-ya}$?i-ya	$\text{m}\dot{\text{a}}\text{-ya}$?i-ya
Dual 1	?	$\text{?}\dot{\text{a}}\text{-}$	$\text{?}\dot{\text{a}}\text{n-}$	$\text{k}\dot{\text{a}}\text{n-}$	$\text{m}\dot{\text{a}}\text{p}\dot{\text{e}}\text{n-}$	$\text{?}\dot{\text{a}}\text{p}\dot{\text{e}}\text{n-}$?	$\text{m}\dot{\text{a}}\text{pi-}$?ipi-
	may-	?	$\text{m}\dot{\text{a}}\text{n-}$	may-	$\text{m}\dot{\text{a}}\text{n-}$	$\text{m}\dot{\text{a}}\text{p}\dot{\text{e}}\text{n-}$	may-	?	$\text{m}\dot{\text{a}}\text{pi-}$
	?o-ya	$\text{?}\dot{\text{a}}\text{-ya}$	-ya	?	?	$\text{?}\dot{\text{a}}\text{n-}$, ?	$\text{?}\dot{\text{a}}\text{n-ya}$	$\text{m}\dot{\text{a}}\text{n-ya}$?
Plural 1	?	$\text{?}\dot{\text{a}}\text{-}$?i-	?	?ipi-	?ipi-	$\text{?im}\dot{\text{a}}\text{-}$	$\text{m}\dot{\text{a}}\text{pi-}$?ipi
	may-	?	$\text{m}\dot{\text{a}}\text{-}$	may-	?	$\text{m}\dot{\text{a}}\text{pi-}$	may-	?	$\text{m}\dot{\text{a}}\text{pi-}$
	?o-ya	$\text{?}\dot{\text{a}}\text{-ya}$	-ya	$\text{?}\dot{\text{a}}\text{n-ya}$	$\text{m}\dot{\text{a}}\text{n-ya}$	$\text{?}\dot{\text{a}}\text{n-ya}$?i-ya	$\text{m}\dot{\text{a}}\text{-ya}$	$\text{?im}\dot{\text{a}}\text{-}$, ?i-ya

It is seen that when subject and indirect object are of the same person the reflexive forms are used (C11). With a third person subject, and an indirect object which is not reflexive, there is consistently the suffix -ya (here referring to the direct object), and the prefixes are of set 'B4,' i.e., third person subject and first, second, third person object forms. With second person subject, the forms are on the whole those of set C1. With first person subject, the forms are those of sets B1 and B2. There are two forms, $\text{m}\dot{\text{a}}\text{pim-}$, ipim- , not found elsewhere, and there are in the texts other forms which do not quite agree with the above table. Without a more thorough examination of all the collected text material, and consideration of all the possibilities (variation of gender of one or both objects, etc.), it is not possible to give a clearer picture of the two-object situation. This must be left to a future fuller discussion.

§3:32. *Verb-stems.* In order to be able to conjugate most Taos verbs it is only necessary to have the third singular preterit, which is the basic stem, and to

know the pronominal-reference prefixes. But for the ablauting verbs it is necessary also to know the negative stem and the stative stem. The negative stem is used for the negative preterit, and also for some relative and temporal subordinate mode forms. The stative stem is used for all "passive" forms and to form the verbal noun. The negative stem might perhaps better be called the "unreal."

The ablaut changes found have been detailed in §2:34. A verb like p'ʰəodə "to lose" may be indicated according to the symbols provided there by the following morphophonemic orthography: p'ʰəod^oəⁱ, where ^o after the initial means "glottalization disappears in the stative stem," ^o after the medial consonant means "voiced becomes voiceless in the negative stem," and the raised vowel after ə means "final ə becomes i in the negative stem"; that is, we have active p'ʰəodə, stative p'ʰəoda, negative wəp'ʰəoti. Verbs like m̄ "to see" are listed as m^ō+mi (m̄, p̄, wə̄m̄mi); stem vowel changes are shown in the listing by raised vowels; stative suffixes other than -mə are shown after the stem, separated from it by /, thus h'u/tá "to kill."

§3:33. *Suffixes.* The preterit tense-aspect has zero suffix regularly. But in the negative status some verbs have a suffix -puo in the preterit, and some of the ablauting verbs have -mi, -ti, etc.: ?iw'ʰə "the wind blew," ?iwòw'ʰəpuo "the wind did not blow" (w'ʰə "to blow" [of wind], cf. w'ʰənemə II "wind"). I have not as yet analyzed any special meaning attached to -puo or the other suffixes; there is a verb-stem p'ʰə "to disappear," so that -puo may not be a suffix.

The present is expressed by the suffix -hu in the affirmative, by -mə in the negative.

The past is expressed by -mə?əna in both affirmative and negative.

The future suffix in the affirmative is -yá; this becomes -lá, -má, -ná after -l, -m, -n of a stem; it becomes -?á after -a; it combines with -bá, -dá to give -bá, -dá: k'ʰollá future of k'ʰolá "to eat," p'ʰəodá future of p'ʰəodə "to lose." The negative future suffix is -pu.

The impending suffix is -hə. The impending is rare in the negative.

The subordinate modes have these suffixes: conditional past -na, to the negative preterit stem; conditional future, -?əna, added to the future; temporal future -xu, to the negative stem; temporal resultative -gə, to the negative stem; temporal past -məgə (and -məxu), to the basic stem; relative present -?i added to the appropriate stem (-?ina if the subject is II singular or I plural); relative past -mə?i, to the appropriate stem; relative future, -məyá?i or -məp'ʰu?i to the basic stem.

Negative status is expressed by wò- (which combines with preceding -na- into -nò-); narrative status by wi- (which may combine with preceding -ə- to give -oy-); definite status (future only, indicative or subordinate) by -su-; comparative status by ʰoy-; interrogative status by po- for an ordinary question and xu- when doubt is implied.

The preterit active has as its equivalent in the stative a resultative, characterized by -mə in the affirmative, but by zero suffix in the negative. Some verbs

however have other "passive" suffixes, such as -tá (h'utá "he was killed"). The present stative is not common in the essive, but has the suffix -hu when found. The past (durative) in the stative has -ʔaŋa added directly to the stem. The impending has -hɛ, and the future -yá and -pu as in the active.

Descriptive statives have the special present -p'ihu, but otherwise are like essives. Intensives have -p'iwhu in the present. The descriptives of color have -wi instead of -p'ihu.

Verbal nouns, which are used with postpositions to supply 'participial' and 'infinitive' functions, are formed in -ne (III, no distinction of number) from the stative stem.

The verb t'ləo "to gather, harvest" may serve to illustrate the suffixes; it is given in the third singular, subject I or III:

	Affirmative	Negative
Active indicative:		
Present	t'ləohu "he is gathering it"	wòt'ləomɛ
Preterit	t'ləo "he gathered it"	wòt'ləoki
Past	t'ləom'ɛʔaŋa "he was gathering it"	wòt'ləom'ɛʔaŋa
Future	t'ləoyá "he will gather it"	wòt'ləopu
Impending	t'ləohɛ "he is about to gather it"	wòt'ləohɛ
Active relative:		
Present	t'ləoʔi "he who gathers it"	
Past	t'ləomɛʔi "he who was gathering it"	
Future	t'ləom'ɛyáʔi "he who will gather it"	
Active conditional:		
Past	t'ləokina "if he gathered it"	
Future	t'ləoyáʔaŋa "if he will gather it"	
Active temporal:		
Future	t'ləokixu "when he gathers it"	
Past	t'ləomɛgá "when he gathered it"	
Resultative	t'ləokigá "when he has gathered it"	
Stative indicative:		
Present	t'ləohu "it is being gathered"	wòt'ləohu
Resultative	t'ləoma "it has been, is gathered"	wòt'ləo
Past	t'ləoʔaŋa "it was being gathered"	wòt'ləoʔaŋa
Future	t'ləotáʔá "it will be gathered"	wòt'ləotápu
Impending	t'ləotáhɛ "it is about to be gathered"	

(The -tá of the stative future and impending is an irregularity compared with the other forms, but some verbs have it throughout the stative.)

Examples of other statuses are: definite (future) tisu't'ləoyá "I will certainly gather it," negative definite tiwòsut'ləopu; narrative (tù "to say") c'ùn'e witùhu "Coyote said (it is said)"; comparative (kʷiaw'alma "to be strong") ɬiɣkʷiia-

w'almą "he was stronger"; interrogative (mù "to see") pos'əonmų "did he see the man?," xu?əmųyá "may I see you?" (future).

§3:4. *Particles.* The free particles are: personal pronouns: ną "I, we," ʔé "you," ʔląwəŋ(ą) "he, she, it, they"; interrogative pronouns: p'ly "who," h'ili "what"; and "adverbs," such as h'uki "whether," hą "yes," h'uona "then," y'uhi "perhaps," and the like. The "adverbs" are numerous.

Attached particles are equivalent in meaning to Indo-European prepositions and adverbs of location, such as -t'o "in," -pidą "back to," -kiną "in" (of time); they are usually added to the stems of nouns: t'ət'o "by the day" (t'ə'əna), t'ət'o "in the house" (t'əna), pılkiną "during the summer" (pıl'ena); but -mki, -t'oti are added to absolute forms of gender I nouns: s'əonenamki "for the man," s'əonenat'oti "from the man" (but t'ət'oti "from the house").

§3:5. *Word-formation.* Formation of new words in Taos takes place by means of derivation and compounding.

By derivation are obtained verbal nouns and agent nouns: t'lo stative stem of t'ó "to dance" gives t'loʔone "dancing, dance" and t'loʔona "dancer" (pl. t'loʔonema); y'lo-t'ó "to sing" gives y'loʔonema "song," y'loʔona "singer." Every verb apparently may give rise to a verbal noun which is an abstract or collective in -ne, or a concrete in -nema, and active verbs have agent nouns in -na.

Derivatives are also made from particles by adding the noun suffixes: p'uoboʔona "person next in rank" < p'luobo "near."

The stem formatives -be-, -de-, -le-, -we-, -e- come under the present heading, but an examination of them would take too long and involves too much historical speculation for the present sketch. For the same reason some apparent verb-forming suffixes like -tá, -puo must be passed over.

Most commonly, new words are formed by compounding. Two or more noun stems may be joined together to give the desired result, the modifying element coming first: k'w'jıawıi-p'lıę-na III.5aa "racetrack" < k'w'jıawıi-ne "race" and p'lıę-na "road"; k'ıuoʔù-ʔıuna I.1hd "lamb" < k'ıuo-na "sheep" and ʔù-ʔıuna "son, offspring." In such compounds the gender is that of the second element; but sometimes we have derivation added to compounding, so that a different gender results (where, for instance, the compound is not animate, though the second element is a noun of gender I, or vice versa). Compounds of noun and particle, with noun suffix, are illustrated by pıanət'ona III.5aa "underwear" < pıane "clothing" and nət'lo "underneath." In compounds of noun plus verb the verb is always the second element, even though it is the modifier: t'ıoy-ı'lo-na I.1bd "giant" < t'ıoyna "person" and ı'lo "to be big" (in compounds only). Many free particles are stereotyped compounds of noun plus attached particle or of two particles: pıiano "in the middle, among" < pıia-na "heart," -no "in," Compounds of two verbs are frequent: c'ləmę "to go hunting" < c'lə "to hunt" + mę "to go."

Proper names are for the most part compounds. Many are compounds of one

or two stems followed by ʔù (from ʔùʔuna) giving a diminutive or affectionate connotation: pòbʔù “flower-little,” t,opʔayʔù “dance-red-little” = “Red dancer”; others are two noun stems: ʔàl,ì “leaf-grass”; combinations of noun and verb stems are also found.

4. SYNTAX

In this chapter will be very briefly given the principal statements of the constructions into which the various morphological categories enter. No detail can be attempted within the scope of the present work.

§4:1. *Substantives.* The absolute form of a noun is used as the subject of a verb and as the second of two objects (usually the “indirect” object). It is also found as the direct object of the verb in the plural, when the emphasis is upon the plurality of the noun. When the object is a possessed noun and the subject is not third singular, it must be expressed by the possessed absolute form or by the possessive verb-phrase.

The stem form of a noun is used alone as the vocative. All proper names are therefore in the stem form, even when used in other than vocative function.

The stem form is compounded in referential dependence with the verb when the noun is the object (this includes the “subject” of an “intransitive” verb, i.e., the object of a unipersonal verb). The referential form is also used with attached particles.

The pronominal reference of a noun is always strictly dependent on its gender, and also on its number, with the exception that some nouns of genders II and III are always either singular or nonsingular in pronominal reference as objects of verbs regardless of the fact that as absolutes they possess both forms; thus, “he shot an arrow” is ʔulʔuot,omà, and with plural object we have the same form, the u- indicating nonsingular object of gender II or III; but the word “arrow” has singular and nonsingular forms, ʔuonemà, ʔuone. The exact conditions when this happens have not been determined.

Numerals and demonstratives are used in apposition with the nouns to which they refer, and agree with them in gender and number, like Indo-European adjectives. Nominals are used only as the object of the verb *to be*, agreeing in pronominal reference with the noun they “modify.”

§4:2. *Verbs.* The verb is the center of the Taos sentence, and the nouns and particles depend upon it. The expression of present and past durative and of all kinds of future action is exact; but the preterit form has often a general value in which the time element is subsidiary (cf. English forms like “he goes” as opposed to “he is going” for a similar phenomenon). In tales the present is used like our narrative present, with or without the narrative status prefix.

There is no imperative, the second person future being used in commands: ʔàʔeyá “go,” literally “you will go.”

The subordinate temporal modes are of frequent use and the relative con-

struction is common. They are used as equivalents of our subordinate clauses and participial constructions. The subordinate forms may function as nouns and be combined with particles. Equivalents of our adverbial clauses are also formed by the use of verbal nouns with "postpositions": $\text{?}\dot{\text{a}}\text{-k}^{\text{w}}\text{in}^{\text{en}}\text{-piw}$ "to where he was standing," literally "his-standing-towards."

Locative and other "adverbial" modifications of verbs are brought about by free particles.

§4:3. *Particles.* The attached particles are "postpositions" for the most part, equivalent to our prepositions and adverbs; they follow nouns and subordinate modal phrases. Free particles are used with nouns and verbs as needed.

§4:4. *Word-order.* The normal order is "adverbial" particles, subject, verb-complex. Examples (from a text) are: $\text{hux}^{\text{!u}} \text{?}\dot{\text{a}}\text{n}\dot{\text{a}}\text{m}\text{p}^{\text{!u}}\text{y}^{\text{!en}}\text{-ow} \text{?}\dot{\text{a}}\text{n}\text{w}^{\text{!on}}\text{hu}$ "then they two come up to their friends," literally "then of-them-two — friends — up-to they-two — come — present suffix"; $\text{hob}^{\text{!o}} \text{w}^{\text{!iwa}} \text{w}^{\text{!ib}} \text{?}\dot{\text{i}}\text{w}^{\text{!ik}}\text{-uo}$ "then again he put one down," literally "then again one he-it — narrative — put-down"; $\text{hux}^{\text{!u}} \text{y}^{\text{!iat}}\text{'loti} \text{s}^{\text{!oon}}\text{ena} \text{w}^{\text{!a}}\text{p}^{\text{!iw}}\text{m}\dot{\text{e}}$ "and the man went away from there sadly," literally, "and-then there-from man narrative-sad-went."

5. VOCABULARY

The purpose of this chapter is to give, in the absence of the complete dictionary which it is eventually hoped to publish, a brief selection from the Taos vocabulary, to indicate the kinds of words and their distribution by meanings and categories, and to serve as material for the comparatist. Nouns are given in the absolute singular, with hyphen after the stem, and indication of gender and declension. Verbs are in the basic stem form, with ablaut indicated where it is present; they are translated by the English infinitive, following the usual custom.

§5:1. *Nouns.* A list of nouns by meaning groups will be given.

§5:11. *Nouns of gender I.* These are all nouns designating persons or animals, with the exception of $\text{c}^{\text{!i}}\text{p}^{\text{!a}}\text{-na}$ I.1bd "doll" and $\text{p}^{\text{'}\dot{\text{o}}}\text{x}^{\text{!ia}}\text{-na}$ I.1aa "egg."

§5:111. *Terms for persons:* $\text{?}\dot{\text{i}}\dot{\text{a}}\text{wyu}^{\text{-?}\dot{\text{i}}}\text{una}$ I.1hd "boy"; $\text{k}^{\text{w!e}}\text{-na}$ I.2aa "Mexican"; $\text{k}^{\text{w!al}}\text{-ena}$ I.2dd "maiden"; $\text{h}^{\text{!w}}\text{-ena}$ I.2bb "woman, wife"; $\text{p}^{\text{!uy}}\text{-ena}$ I.2db "friend"; $\text{p}^{\text{'ons}}\text{lay-na}$ I.1aa "white man"; $\text{s}^{\text{!oon}}\text{-ena}$ I.2db "man, husband"; $\text{t}^{\text{!ob}}\text{-u-na}$ I.1bd "governor of pueblo"; $\text{t}^{\text{'oy}}\text{-na}$ I.2aa "person, Indian"; $\text{?}\dot{\text{u}}\dot{\text{t}}\dot{\text{e}}\dot{\text{t}}\dot{\text{e}}\text{-?}\dot{\text{i}}\text{ena}$ I.1if "youth"; $\text{?}\dot{\text{u}}\text{p}^{\text{!e}}\text{yu}^{\text{-?}\dot{\text{i}}}\text{una}$ I.1hd "girl"; $\text{?}\dot{\text{u}}\text{p}^{\text{'il}}\text{-ena}$ I.2bd "baby."

§5:112. *Kinship terms.* I have discussed the kinship and status terms in the paper referred to above (§1:4); the principal terms are listed here for the purpose of giving their declensions:

$\text{t}\dot{\text{o}}\text{m}^{\text{-!ena}}$ I.2bb "father"; $\text{k}^{\text{!a}}\text{-na}$ I.2aa "mother"; $\text{?}\dot{\text{u}}^{\text{-?}\dot{\text{i}}}\text{una}$ I.2gg "son, child"; $\text{p}^{\text{'iw}}\text{-ena}$ I.2bb "daughter"; $\text{p}^{\text{!op}}\text{!o-na}$ I.1bd "older brother"; $\text{p}^{\text{'!qy}}\text{-na}$ I.2aa "younger brother"; $\text{t}^{\text{!ut}}\text{-u-na}$ I.1bd "older sister"; $\text{p}^{\text{'ayu}}\text{-?}\dot{\text{i}}\text{una}$ I.1hd "younger sister"; $\text{m}^{\text{!aku}}\text{-na}$ I.1dd "grandchild"; $\text{t}^{\text{!afu}}\text{-?}\dot{\text{i}}\text{ina}$ I.1if "grandfather"; $\text{?}\dot{\text{i}}\text{a}\text{-?}\dot{\text{i}}\text{una}$ I.1hd "father's mother"; $\text{h}^{\text{!it}}\text{-u-na}$ I.1bd "mother's mother"; $\text{t}^{\text{!u}}\text{-?}\dot{\text{i}}\text{una}$ I.1hd "father's brother, older

cousin"; ?iɛmɛ-ʔena I.1hd "father's sister"; mɪm'i-na I.1aa "mother's brother"; kɪaj'u-na I.1bd "mother's sister"; kɪiɬu-ʔuna I.1hd "nephew, niece, younger cousin"; m̄as'ie-na (in composition only, nonsingular m̄asieną with stress on first element) "step-relation"; k'owa-ʔana I.1hd "relative"; tɪa-ʔa-na I.1bd "son-in-law"; sɪəoyi-ʔina I.1hd "daughter-in-law"; mɪąku- as first element of compound, "relation by marriage" (other than son-in-law and daughter-in-law).

§5:113. *Words for animals, birds, insects:* cɪbik'i-na I.1ce "robin"; cɪiy'u-na I.1bd "mouse"; c'iw-ena I.2db "eagle"; cɪiyu-ʔuna I.1hd "bird"; cɪulo-ʔona I.1hd "dog"; c'əw-ena I.2bb "bluejay"; c'iliyo-ʔona I.1if "bat"; c'ün'e-na I.1aa "coyote"; c'uwala-ʔana I.1if "squirrel"; h̄uol'o-na I.1bd "quail"; k'əo-na I.2aa "bear"; kɪol-ena I.2bd "wolf"; k'ow-ena I.2db "horse"; kɪolno-ʔona I.1hd "badger"; kɪon'e-na I.2bb "buffalo"; kɪosi-ʔina I.1hd "cow"; k̄ow-ena I.2bb "owl"; kɪuyɬul'u-na I.1ce "skunk"; k̄w'ay'a-na I.1bd "magpie"; lɪl'u-na I.1bd "chicken"; mɪɥsi-ʔina I.1hd "cat"; pɪɛcu-ʔuna I.1hd "rattlesnake"; p'ɛ-na I.2aa "deer"; p̄ə-ʔəna I.2gg "fish"; p̄iw-ena I.2bb "rabbit"; p'əwɪaya-ʔana I.1hd "worm"; p'ə-ʔəyo-na I.1dd "spider"; tɪuxw'a-na I.1bd "fox"; p'iw-na I.2aa "sparrow"; p'ɪay'a-na I.1bd "louse, flea"; p'ɪyuy-ʔuna I.1hd "fly"; s̄ul-ena I.2bb "bluebird."

§5:12. *Nouns of genders II and III.* As has been indicated, the same kinds of words occur in both of these genders. A selection by meanings is given, no attempt being made to separate the two groups.

§5:121. *Body parts:* c̄ed-ena III.5aa "anus"; cɪ-nemą II.4aa "eye"; ʔɛ-nemą II.4aa "shoulder"; ʔɛn-enemą II.4aa "foot"; k'ə-na III.5aa "vulva"; k'əo-nemą II.4aa "neck"; ɪom'ɥ-na II.3bb "mouth"; ɪox'oy-na III.5aa "lip"; m̄ac'ele-na III.5dd "fingernail"; m̄an-enemą II.4aa "hand"; ʔəd-enemą II.4aa "chin, jaw"; p'ia-na III.5aa "heart, breast"; p'li-nemą II.4aa "head"; p'əy-na III.5aa "nose"; p'lo-na III.5aa "hair"; t'jam'ɥ-na III.5aa "cheek"; t'loəo-na III.5dd "ear"; t'jɛ-ʔena III.5gg "stomach"; w'a-na III.5aa "penis"; x'lo-nemą II.4aa "arm"; x'ɥ-nemą II.4aa "leg"; xɪɥp'i-na II.3bb "knee" (<"leg" + "head").

§5:122. *Plants, trees:* ʔəna III.5aa "leaf"; h̄ɥ-nemą II.4aa "cedar"; h̄ɥp'əha-ną II.3dd "juniper"; ʔiəlo-ną II.3db "willow"; ʔia-ʔane III.6g "corn"; k̄w'ɛto-ną II.3db "oak"; ɬa-ne III.6a "tobacco"; ɬi-ne III.6a "grass"; ɬit'q-ne III.6a "wheat"; ɬo-ʔone III.6g "wood"; naɬ-enemą II.4aa "aspen"; p̄əb-enemą II.4aa "flower"; p'lo-na III.5aa "pumpkin"; p'ə-ʔk'uwoną II.3db "fir, spruce"; p'ətukw'il'o-na III.5aa "mint"; p'ɪuol-enemą II.4aa "yucca"; t'ą-na III.5aa "bean"; t'ulo-ną II.3db "tree, cottonwood"; t'ɥɛ-ną II.3db "birch"; wɪɛ-ʔenemą II.4gg "pine."

§5:123. *Natural phenomena:* ʔiɛk'qne III.6a "hail"; ɬul-ene III.6a "rain"; nɪam-ene III.6a "soil"; p̄ə-ʔona III.5gg "land, country, the earth"; p'lian-enemą II.4dd "mountain"; p'əclia-ne III.6a "ice"; p'lo-na III.5a(a) "moon"; p'əp'ə-na III.5a(a) "sky"; p'əxə'lo-na III.5aa "star"; p'əx'uo-ne III.6a "steam"; p'ə-ʔone III.6g "water"; p'ja-ʔane III.6g "fire"; p'ɛ-na III.5aa "cloud"; t'ül-ena III.5a(a) "sun." The words for "hail," "rain," "water" have corresponding singular and non-singular forms (III.5aa, III.5aa, III.5gg) meaning "hailstone," "raindrop," "drop of

water"; the latter is also used to mean "river, stream, body of water."

§5:124. *Man-made products*: cùd-ena III.5db "shirt, garment"; ?iēt'u-nā II.3dh "ladder"; kəd-ʎenemā II.4aa "door"; kʎən-ʎenemā II.4aa "cradle"; kʎəob-ʎenemā II.4aa "mocassin, shoe"; kʎi-nemā II.4aa "blanket"; k_w'o-na III.5aa "ax"; ʎ'il-ena III.5db "belt"; ʎiət'ə-na III.n.5aa "boat"; ʎiəx_w'olo-nā II.3db "window"; ʎ'u-na III.5aa ("piece of) buckskin"; mənmy-nā II.3db "glove"; nʎaxʎu-ʎ'una III.5gg "adobe brick"; p'la-ne III.n.6a "clothing"; piē-ʎ'ena III.n.5gg "bed"; p'om'ʎ-na III.5aa "trouser leg, trousers"; p'uoħ'o-na III.5aa "ball"; p'ʎiē-na III.5aa "road"; p'òk'u-na III.5aa ("loaf of) bread"; t'ə-na III.n.5aa "house"; x_w'il-ena III.5db "bow"; y'uwola-nā II.3fi "skirt."

§5:125. *Place-gender nouns*. Something over fifty nouns have been recorded as being of the place-gender, that is, inserting -nā after the prefixes of pronominal reference. They cannot be listed here, but some of the meanings are: "leaf" (§5:122), "collar," "boat" (§5:124), "field," "book," "house" (§5:124), "lock," "canyon," "fruit," "bed" (§5:124, but the same word as ordinary gender III means "mattress, sleeping-mat"), "work," "meal," "bitterness" (literal, not figurative), "clothes," "war," "digging," etc. Nearly all have a definite connotation of place, whether they are concrete objects or verbal nouns of action. The formation is semantically alive, as evidenced by the borrowed words meaning "canyon," "valley," "street," "bedstead," "machine," "garter," "pocket or purse," "store," "garden," and by native words designating recent cultural objects.

§5:13. *Use of compounds*. Compounding being a living process of the language, many notions are expressed by compounds. This is especially true of descriptive terms for natural phenomena, and of terms for man-made objects of all kinds. For recently introduced cultural objects the language is more likely to resort to a descriptive compound than to borrowing. Sometimes the compounds are loan-translations, however, as in the case of cʎip'òx_w'iliʎ'ine (III, nonsingular) "eyeglasses" <cʎi-nemā "eye" and p'òx_w'iliʎ'ina "glass." Many of the words of the vocabulary, both old and new (like the word for "glass"), are evidently compounds in form, but informants are not able to give meanings to some or all of the component parts. A historical study of the Taos vocabulary would prove interesting from this point of view.

§5:2. *Verbs*. As has already been indicated, Taos uses verbs not only to express the usual verbal notions of English and other Indo-European languages, but also for most "adjective" ideas. The number of verbs is thus large, and they play an important part in the expressiveness of the language.

§5:21. "*Transitive*" verbs. Some multipersonal verbs of active meaning are the following: c'el(āʎ/la "to catch"; c'ə "to hunt"; c'iali "to sweep, comb"; c'iaʎ'olq'li/la "to ask a question"; c'oyt'ó "to work"; c'lonā "to grow"; c'ol'əod(ā "to enter"; ʎ'ē "to come"; ʎ'ol(ā "to drive"; h'əob(ā "to like"; h'ql(ā "to breathe"; h'u/tá "to kill"; k'ol+wi "to plant"; k'oyo "to know"; k'ol(āʎ/la "to eat"; k_w'ili "to spill"; ʎ'əya "to boil"; ʎ'oyk(āʎ "to sit down" (reflexive); ʎ'ul(ā "to rain"; māv "to

want"; mǎc¹uli "to press"; mǎ "to walk"; m¹uoli "to return"; m^oǔ⁺mi "to see"; nǔ⁺mi/ma "to look for"; ʔ^olo⁺lo "to wash"; p¹ǝl(ǝ "to sew"; p¹iawi "to dye"; sǔ "to drink"; t¹uwi^a "to buy"; tǔ⁺puo "to speak"; t¹olo⁺puo "to hear"; ʔ¹um(ǝ/ma "to tell"; w^oǝl(ǝⁱ "to dig"; w¹iaⁱw "to give"; w^klon(ǝ "to arrive"; w¹ǝt⁺puo "to blow" (of wind); x¹i⁺mi "to wait for"; y^oloy(i "to command" (stative also y¹oyba); y¹ot^oó "to sing."

§5:212. "Causatives," "desideratives." The verb ʔ¹ǝmǝ (neg. ʔ¹ǝmi, stative k¹ǝmmǝ) "to do, cause to . . ." is found compounded as second element with a number of stems, some of which do not exist independently; compounds of this type seem to be freely formed at need, and can be considered causatives, though the formation is lexical and not paradigmatic: h¹ǝol[?]ǝmǝ "to hurt" (h¹ǝol- "sick"), p¹i[?]ǝmǝ "to use" (pⁱ- not identified), h¹ǝy[?]ǝmǝ "to mend" (cf. h¹ǝywop¹ihu "he is rich").

In the same way mǎw "to want" is compounded with many verbs to give desideratives, with the meaning "to want to . . ."

The verbs mǎ "to go, walk," wǎ "to be," and some others, also enter into numerous fixed compounds.

§5:22. "Intransitive" verbs. Under this heading will be listed a number of unipersonal verbs of various kinds.

§5:221. *Essives*. These are unipersonal verbs translated for the most part by intransitives: ʔ¹ǝmǝ "to sit"; k¹uymǝ "to lie down"; k^winmǝ "to stand"; ʔ¹owmǝ "to smell"; p¹ǝtǎ "to be wrapped"; t¹ǝmǝ "to dwell"; wǎmǝ "to be" (direct resolution) and "to have" (possessive resolution). x¹umǝ (negative x¹umǝ) "to love" (reflexive possessive); y¹iawomǝ "to be awake."

§5:222. *Descriptives*. These are unipersonal verbs translated by adjectives; they differ from essives only in having -p¹ihu (with medial stress on the stem) in the affirmative present. They are given here in the shorter resultative form in -mǝ: c¹ǝpumǝ "to be bad"; c¹ǝmamǝ "to be new, young"; h¹ǝywomǝ "to be rich"; k¹atimǝ "to be silent"; k¹imǝ "to be thick"; k¹umǝ "to be good" (singular complement only, k¹uyumǝ with nonsingular); k^wiaw¹almǝ "to be strong"; ʔ¹ǝywomǝ "to be poor"; p¹ǝyamǝ "to be bald"; x¹ǝlimǝ "to be round"; x¹ǝlmǝ "to be heavy"; y¹ayimǝ "to be crooked."

Many descriptives have intensive forms in -p¹iwhu in the present, with -p¹iwmǝ negative present, -p¹iwmǝʔǝnǝ negative past: k¹up¹iwhu "he is very good"; h¹ǝywop¹iwhu "he is very rich," etc.

§5:223. *Color terms*. Words for colors are either special descriptives with -wi as the suffix in the resultative, or they are free particles ("adverbs") in -hi, used with wǎmǝ "to be"; -hi usually conveys the idea of -ish in English. The most common terms are: c¹ǝlwi "blue, green"; c¹ulwi "yellow"; p¹ǝh¹awi "grey"; p¹ǝt¹ǝwi "white"; p¹ǝx¹ǝwi "brown"; p¹ǝywi "red" p¹ǝnwi "black"; the forms p¹ǝh¹ahi "greyish," p¹ǝx¹ǝhi "brownish," are used in compound color terms.

§5:3. *Particles*. The most frequent "postpositions" are: -bo "up against,"

·kinaꞓ "in, on" (time when), ·kinʔow "over" (but not touching), ·k'əyto "on top of," ·mki "for," ·mono "along," ·muwo "throughout" (space), ·during (time), ·naꞓto "under," ·ʔoga "on, upon, into," ·ʔoya "on" (as a wall), ·pi "alongside," ·pianʔow "among," ·pibaꞓ "up," ·pigaꞓ "down," ·piwaꞓ "into," ·piwto "back to," ·puobo "next to," ·puot'o "near," ·p'ialgaꞓ "together with," ·to "in, within," ·t'o "at," ·t'oti "from," ·wagaꞓ "on account of."

Many of the free particles are compounded with the above or with nouns, giving fine distinctions of position: c'laot'o "in front of (face-at)," k'laot'o "up on top" (as a hill).

Other free particles are: h'iʔangaꞓ "why, because," haꞓ "yes," h'iyuohu "hello," hob'lo "also," h'odaꞓ "and," h'uki "whether," hux'u "and so, so then," h'uyo "so much," h'uonaꞓ "then," h'uoxenaꞓ "yesterday," h'uwenəꞓ "no," k'əwbo "a long time," ʔ'olodaꞓ "almost," ʔoyx'enhi "if," taꞓ "then," t'o . . . ·nenaꞓ "or," t'o . . . t'o . . . ·nenaꞓ "either or," w'anno "in, upon," w'iwa "again"; y'odaꞓ "here," y'uhi "perhaps," y'uy "suddenly."

§5:31. *Place names.* Taos place names are usually composed of a stem with an attached locative particle, or of several stems with a particle: t'laot'o "Taos pueblo," literally, "in the village"; k_w'əʔoga "Taos village," literally, "among the Mexicans"; h'qlp'əno "Santa Fe," literally "shell-water-in." Practically all the place names recorded are descriptive and analyzable.

§5:4. *Loanwords.* There are several layers of loanwords in Taos. There are undoubtedly some of Indian origin, though these are of course hard to identify without more knowledge of neighboring languages. The principal loans are Spanish, and there are many English loans too. For a detailed discussion, see the paper referred to in §1:4.

Among the younger and better educated speakers English words are used unaltered; heard in this way were "stove" (informant "C"), "forty-nine cents" as a unit (informant "B"), and others; "B," who doesn't know much Spanish, is very conscious of the recognizable Spanish loanwords, but mixes in English freely.

6. HISTORY

§6:1. *General.* The history of a language can only be fully written when there are available records of its development over a long span of time. Such records are never available for American languages, and their history can thus never be completely set down. But the soundness of the technique of comparative linguistics is such that reconstructions of the external history can be made with considerable certainty, and much of the internal development can be gleaned from examination and analysis of the vocabulary in relation to the culture of the people speaking the language.

Within the scope of the present work, only a very brief summary of the available evidence for the external history of the Taos language can be presented.

§6:2. *Linguistic relations.* The Taos language is most closely related to the

languages of Picurís pueblo, twenty-three miles south of Taos, and of Sandía and Isleta pueblos, respectively fourteen miles north and twelve miles south of Albuquerque. Together these constitute Tiwa, which can be divided into Northern Tiwa—Taos and Picurís, and Southern Tiwa—Isleta and Sandía. According to Harrington, the extinct Piro language in southern New Mexico was close enough to be considered a subgroup of Tiwa, but the evidence is scanty. The Isleta del Sur dialect south of El Paso is now probably extinct, but was practically the same as Isleta, according to Harrington's evidence; this was confirmed by one of my Isleta informants who had been there some years ago and had spoken with the survivors.

The two Tiwa groups are fairly homogeneous: Sandía and Isleta differ very little and are mutually completely intelligible; Taos and Picurís diverge more from each other. Further, the group as a whole is very similar: Taos and Picurís are each intelligible to the other three, and Sandía and Isleta are understood in the north, though with difficulty.

Tiwa is classified as a subfamily; with the Tewa and Towa subfamilies it forms the Tanoan family. Tewa—spoken in Santa Clara, San Juan, Nambé, Tesuke, and by the one surviving Indian family at Pohwake, is very homogeneous, according to available evidence. Towa now consists only of Jemes, but Pecos is supposed to have belonged to the group. Tewa and Towa are rather different from each other, and widely different from Tiwa.

On the basis of Tanoan and Uto-Aztecan evidence it has been possible to reconstruct an Azteco-Tanoan linguistic stock; see B. L. Whorf and G. L. Trager, *The Relationship of Uto-Aztecan and Tanoan*,² where the basic outlines of Azteco-Tanoan phonology and morphology are laid down and about one hundred cognates are cited. Azteco-Tanoan may include Zuni, and probably does include Kiowa; for the latter relationship I have considerable evidence in addition to that presented by Harrington in the past. There is also in hand evidence of a distant relation of Azteco-Tanoan to Penutian, Mayan, and possibly Tunican.

§6:3. *Proto-Tiwa*. On the basis of extensive vocabularies of the three other Tiwa languages collected in the summer of 1937, it has been possible to reconstruct Proto-Tiwa in considerable detail.

The details of the phonology may be found in the papers mentioned above (§1:4)—*Comparative Phonology* and *The Kinship and Status Terms*.

Most of the Proto-Tiwa phonemes remained unchanged in Taos, but these changes did take place: $k' > x$, initial $b > m$, initial $d > l$, $\check{y} > y$; g apparently became y internally under most conditions and x initially, but there are a few cases of internal g left; $r > n$; $ie > i$, but a few cases of ie apparently remain; a became fronted; o became low back unrounded; ə changed from high central to mid back; ia changed from low mid central to low mid front; əo changed from high mid cen-

² B. L. Whorf and G. L. Trager, *The Relationship of Uto-Aztecan and Tanoan* (*American Anthropologist*, n.s., vol. 39, Menasha, Wis., 1937, pp. 609-624).

tral to low mid back; ə and əɔ both became ɔ (but a few cases of ə under conditions not yet determined became ɔ). The tones remained unchanged. These changes are much less in extent than those that took place in the three other languages, though there too the general lines of the system remain.

Morphologically, the Proto-Tiwa system seems to have been the same as in Taos and Picurís, though there has been some rearrangement of declensional suffixes in Taos. The systems of pronominal reference are the same in Taos and Picurís, but Sandía and Isleta may have only two genders (animate and a single inanimate); the three-gender system must be original, and place-gender looks as if it were the relic of a still older system; the verb is on the whole the same in all four languages, but the southern ones have a preterit suffix which cannot be identified in the northern ones, and which may or may not be original. Proto-Tiwa had the same ablaut system as Taos, but it must already have been nonfunctioning.

§6:31. *Origin of Taos phonemes.* To summarize and reverse the evidence referred to above, we list the origin of the Taos phonemes: p, t, c, k, k_w, ʔ, p', t', p', t', c', k', k_w' < the same Proto-Tiwa phonemes; b, d, g < internal Proto-Tiwa b, d, g, accounting for the absence of these sounds initially in native words; ʎ, s, x_w, h (unchanged from Proto-Tiwa; x < k', and in some cases also probably from Proto-Tiwa or Proto-Tanoan g; m initially from b and m, elsewhere from m; n < n, and in the suffix -na from r; l initially from d, elsewhere from l; y < y, j, and internal g; i < i and some cases of ie; ie, ia, e, a, o, ə, əo, uo, u from the same originals, though patterning somewhat differently through phonetic changes; ɪ, iɛ, ɛ, ɯ unchanged; ɔ from ɔ and some cases of ə; ɔ from ɔ, əɔ, and most cases of ə.

§6:4. *More remote reconstructions.* From the Tiwa evidence itself, it is possible to reconstruct *q' ~ *q as the original of the ablaut pair ʔ ~ k, *g_w ~ k_w for w ~ k_w, *ɣ_w ~ x_w for w ~ x_w, and possibly others. From the Tanoan evidence as a whole it can be surmised that the vowel clusters originally may have had w, y, or h separating the two elements. Further, the tone system patterns so as to suggest that originally there may have been only stress with differences in length of vowels, and out of these developed the tones, with loss of significant quantity.

The morphology of Taos is obviously archaic and probably differs little from that of Proto-Tanoan.