UNIVERSITY OF CALIFORNIA PUBLICATIONS
IN
AMERICAN ARCHAEOLOGY AND ETHNOLOGY
Vol. 4 No. 5

THE WASHO LANGUAGE OF EAST CENTRAL CALIFORNIA AND NEVADA

BY
A. L. KROEBER

BERKELEY
THE UNIVERSITY PRESS
SEPTEMBER, 1907

UNIVERSITY OF CALIFORNIA PUBLICATIONS

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INTRODUCTION.

The following information on the Washo or Washoe language was obtained during two visits of a few days each, devoted partly to other purposes, at Reno, Nevada. A number of Indians, both Washos and so-called Paiutes of Shoshonean stock, live on the outskirts of the town and can daily be found about its streets. The information secured was from Robert Schermerhorn, a young educated Indian speaking good English. The time devoted to investigations was so short that the progress made is due to the satisfactory interpreter and to the fact that the language does not present great phonetic and structural difficulties. From the material obtained a number of points are touched upon but necessarily left undetermined, and probably there are others which a further study may show to be of importance. Sufficient information seems however to have been secured in the study of the language to recognize with certainty some of its principal characteristics, sufficiently at least to compare the language morphologically with the neighboring lexically unrelated languages and to determine its place among them.[1] Like the preceding linguistic contributions published in this series, the present paper is the product of the Ethnological and Archaeological Survey of California which the Anthropological Department of the University owes, together with its foundation and support, to Mrs. Phoebe A. Hearst.

The territory of the Washo was situated both in California and Nevada in the vicinity of Lake Tahoe and the lower Carson

[1] R. B. Dixon and A. L. Kroeber, Amer. Anthr., n. s., V. 1, 1903.

valley, east of the Sierra Nevada. The neighbors of the Washo on the west were the Maidu and the Miwok, living on the western slope of the Sierra. On all other sides were Shoshoneans, probably all of whom belonged to a dialectic group comprising the Mono and the so-called Paviotso or "Paiute" of northwestern Nevada. The Washo language was definitely established as a distinct family by Powell on the basis of its lexical content, and there appears no reason to change this classification. Although the Washo territory lay more largely in Nevada than in California, it was so restricted that the Washo present all the appearances of one of the numerous small linguistic families characteristic of California. They constitute, however, the only small family, in this region, east of the Sierras, and their cultural relations, whether through the force of environment or through affiliation, have been apparently mainly with the neighboring Shoshoneans. They are the only Indians in Nevada that do not form part of the great Uto-Aztekan family. For this reason the first question of interest in regard to their language from a comparative point of view, is whether in its morphological characteristics, —its lexical and genetic independence being recognized,—it resembles more nearly the neighboring widely spread Shoshonean dialects with which it is chiefly in territorial contact, or the many distinct smaller families constituting a morphological group in northern and southern Central California. This question can be better discussed after a consideration of the information secured upon the language, and the answer will therefore be found in the conclusion of this paper.

PHONETICS.

The vowels of Washo are u, o, a, e, i. E and o are open. Modifications of a such as ä; closed e and o; ö and ü; and nasalized vowels, do not occur. The vowels are both long and short. At times they are so short as to be obscure in quality. Accented or long vowels are often heard as doubled. The Indians distinguish two i's in certain stems according as these stems are combined with varying affixes, but the dissimilarity in sound between these i vowels is at best so slight that it is difficult to say whether a dif-

ference actually exists or is only heard by the interpreter because he is conscious of a difference in meaning.

i	ī	I
e	è	E
a	ā	A
o	ò	O
u	ū	U

The chief difficulty to a foreign ear in the consonants of Washo is presented by the surd and sonant classes. There are probably three of these classes, whose true nature and relations have not been exactly determined. The sonants are apparently spoken as in English. The surds may be formed differently. The third class may consist of the surds aspirated. In recording the language, surds, "intermediate sonants," and aspirates, k, *k*, and *k'*, were written in addition to sonants; but it seems likely that actually these symbols represent only two sounds. In the fact that its sonants seem more nearly than its surds to resemble the corresponding sounds of English, Washo differs from most Californian and many other Indian languages, in which the sonants are usually more different from their nearest European equivalents than are the surds.

Outside of the question of surds and sonants the consonants present no great difficulties to the English ear. There are only three series, represented by k, t, and p. In each of these there is found, besides the probable surd, sonant, and aspirate, only a nasal. Spirants other than s sounds do not occur. A sound resembling the spirant of k, found occasionally between vowels and written x, is probably only h, for it does not occur either initially or finally. Ts is treated by the language as a single sound. S at times is a very pointed sound, dissimilar from English s. C (sh) approximates s. L is frequent, but r does not occur. A d which approximates r has been found in a number of words, but as it seems to occur neither initially nor finally it is doubtful whether it represents a distinct sound. Y, w, and h require no comment. Characteristic sounds wanting in the language are spirants directly related to surds or sonants, velars, lateral l, tc, and r.

Frequent and characteristic sounds occurring are g, d, b, ñ (ng), l, and y.

k	(*k*)	g	k'	(x)	ñ
t	(*t*)	d	t'		n
p	(*p*)	b	p'		m
ts			ts'		
				s	
				c	
		l, (r)			
		y, w, h			

INITIAL AND FINAL SOUNDS.

All the vowels occur both initially and finally. All the consonants have been found initially and most of them finally. Y and w appear finally as i and u. H, ts, and n have not been found finally, though it is probable that at least n occurs. The initial sound of syllables is usually a consonant, the final sound a vowel. The typical monosyllabic stem formula thus is consonant-vowel, less commonly consonant-vowel-consonant or vowel-consonant.

COMBINATIONS OF SOUNDS.

Combinations of sounds are not carried very far. The principal diphthongs are au and ai. There are no combinations of consonants either at the beginning of words or at the end of words, although it must be remembered in this connection that ts is a simple sound for the language. Within words practically any combination of two consonants can occur; but there are no combinations of three consonants. The only exceptions to the rule that any two consonants can be put in juxtaposition seem to be that h and ts, which cannot occur finally, are not found as the first member of combinations; and that w and n have so far not been found as second members of combinations.

There is every probability that the stems and elementary syllables of the language contain no consonantal combinations. The fact that no combinations at all are found either at the beginning or end of words, is overwhelming evidence to this effect. Of the double consonants occurring within words a considerable number can be actually explained as due to affixion or reduplication.

INFLUENCE OF SOUNDS UPON ONE ANOTHER.

The various sounds, both vowels and consonants, influence each other comparatively little by coming into contact or proximity. There is a certain amount of vowel modification, usually of a to e and i to e. Thus, lak'a, one, lek'liñ, one person, lek'ek'-eñ, one each. Before certain verbs the transitive pronominal prefix la- appears as le-; before initial i stems it becomes l-: la-galami, le-gīti, l-icli. Before similar stems the intransitive and possessive prefix l-, originally perhaps le-, changes i- to e-; añal, l-añal; èmlu, l-èmlu; but īyek, l-èyek; ību, l-èbu; īye, l-èye-i. Dal-, prefixed to color adjectives, becomes del- before i stems: dal-yawi, dal-cocoñi; but del-pīlpili, del-elegi.

Contraction of vowels is uncommon. There are a few instances, such as laca, in me, from le, I, and -aca, inside of.

There is some duplication of stems, with consequent juxtaposition of consonants. The mutual contact of such consonants does not affect either of them. Do*k*do*k*i, beat, delpīlpili, blue.

In the final reduplication characteristic of the collective or distributive noun, the final consonant is usually lost by the first of the pair of syllables. Thus, -xat becomes -xa-xat, sañ becomes sa-sañ. If the reduplicated syllable is not final but in the middle of a word, the final consonant seems to be retained in both its occurrences but the initial consonant is lost in the second syllable of the pair. Thus hel-el-mi from hel-mi and lek'-ek'-eñ from lak'-a.

Such cases of reduplication in the interior of polysyllabic words make it almost certain that these words, however unanalyzable they may otherwise seem to be, are composed of monosyllabic elements.

An idea of the phonetic character of the language is given by the fact that the English word quicksilver (kwiksilv$^{E^r}$) is pronounced gū'ts'iluwe in Washo.

SUMMARY.

The phonetic character of Washo is thus seen to be marked by a certain simplicity, regularity, and smoothness of sounds, at least from a European standpoint, qualities which are foreign to many American languages, though they are typical of a majority

spoken in Central California, including Maidu, Miwok, Yuki, Pomo, Wintun, Yana, Costanoan, Esselen, and Yokuts. Outside of the aspirates and perhaps "intermediates" and the somewhat peculiar s, there is hardly a sound which is not readily spoken by a tongue accustomed to European pronunciations. The absence of spirant, velar, and lateral sounds distinguishes the language from most American languages. The freedom with which both consonants and vowels are brought into contact within the same word without modifying one another, the very limited accumulation of consonants, and the fact that the elements of which words are built up appear never to contain any combinations either of vowels or consonants, make the pronunciation of the language at once easy and its structure transparent.

REDUPLICATION.

A number of words appear duplicated or reduplicated in their simplest forms. These include nearly all color adjectives, which in addition have a prefix dal-, and a number of nouns. This etymological duplication of words in their absolute form must be distinguished from the more grammatical reduplication to indicate iteration or distribution.

dal-tsatsami	yellow, green
dal-cocoñi	red
del-pīlpili	blue
dal-pòpoi	white
de-lèlegi	dark red
tamòmo	woman
tewīwi	youth
ñauñañ	baby
-ba*pa*	paternal grandfather
-elel	maternal grandfather
-ca'ca	mother's sister
tsi-guguc	belly
memeu	ribs
ts'ats'a	chin
tu*pipi*wi	skunk
le'lem	midnight

COMPOSITION AND STRUCTURE.

Washo appears to be a language in which, as in most American tongues, composition and derivation for grammatical purposes are developed to a considerable extent. Its study in the present instance has really been carried on to so limited a degree that little isolation and determination of derivative and inflectional elements was to have been expected. Such elements are however comparatively so prominent, and the transparent phonetic character of the language so much facilitates their discernment, that a considerable number of morphological affixes have been determined. It is certain that the number of these is much greater than for instance in Yokuts, a language the study of which has been carried much further than that of Washo, and probably also considerably greater than in Yuki, an equally simple language from which a still greater volume of material has been subjected to analysis.

While composition and derivation for formative or etymological purposes have not been specially investigated in Washo, it seems that they are not particularly highly developed. It is probable that binary composition, as of two nouns, is of little importance. That processes of word-building by derivation occur to some extent is evident from such suffixes as the -hu which occurs on the words for man, girl, and boy. The usual class of suffixes serving to derive nouns from verbs in many Californian languages, is but little developed or lacking in Washo, its place being taken by a group of d-prefixes. Nominal affixes or stems of substantival meaning used only in composition, of the type found in Algonkin and in greater development in Selish and Kwakiutl, have not been discovered. The principal observed instances of etymological composition or derivation follow.

teliw'-hu	man (te-wīwi, young man)
caulam-hu	girl
me-hu	boy (me-lu, old man)
ñauwañ-añal	navel-string ("baby-live")
bu-meli	husband (meli, make a fire)
bu-añali	son-in-law (añal-i, live)
dal-yāwi	black (dal-, prefix of all color adjectives)
mal-yāwi	a black object, charred wood
nūci	worthless
duk-nūci	dislike, hate
t-emli	heart
gūc	noise, sound
èmle-gūc	heart-beat
emle-gūc-i	it is beating
d-ībe	sun, moon, month
èbe	to-day
d-ibe-luc	noon
*k*um-èbe-yi	days (when preceded by a numeral)
dapauwit	night
gua-pauud-i	nights (when preceded by a numeral)
daw-ad-acaa	before day
daup-ad-acaa	afternoon, before evening
daup-ad-umua	evening
dek-mel-bolewi	five-cent piece, said to mean small and thick
del-pīlpili	blue
t'awi-pilpili	iron
t'awi	knife

Composition or derivation with grammatical function have been noted wherever possible, and it has become certain that such composition is richly developed. The following list comprises the ascertained prefixes and suffixes of a grammatical or morphological nature.

LIST OF GRAMMATICAL AFFIXES.

Pronominal prefixes:

l-, di-	first person, subject of verb or possessive with noun
m-, um-	second person, subject of verb or possessive with noun
mi-	subject of first person with object of second
la-	subject of third person with object of first
ma-	subject of third person with object of second
le-um-	subject of second person with object of first
*k*e-	second person imperative
*k*a-	second person imperative with object of third person
de-, da-	possessive of third person
gi-, ge-, ga-	emphatic or reflexive of third person
gum—ci	denotes "a person and his." Compare the reflexive and dual suffixes.

Suffixes of pronominal stems:

-ci	dual (on the numeral for two this suffix denotes that persons are referred to)
-ci	inclusive of first person (first and second persons)
-u	plural (on numerals above three this suffix denotes that persons are referred to)
-di	formative of demonstratives from demonstrative adverbial stems
-k	emphatic
-*k*um	reflexive object. (Perhaps a prefix of verbs and nouns.)
-a	a frequent suffix of interrogatives

Local and instrumental case-suffixes of nouns:

-a	adessive, terminative, inessive, general locative
-adi	inessive
-aca	inessive
-digu	inessive
-aci	ablative

-uwe	ablative
-awic	terminative
-iwi	superessive
-elmu	subessive
-dulil	juxtapositive
-leleu	approximative
-haka	comitative
-lu	instrumental

Noun and verb suffixes denoting number or distribution:

-*k*ic	distributive or collective on nouns and verbs
-da	distributive on verbs

Instrumental prefixes of verbs:

dum-	with the end of a long object
uga-, yugi-	with a long object
de-	with the hand (?)
liwi-	with the foot
ñi-	with the head
le-	with the teeth, by rubbing
bilu-(k)-	by turning (?)
u-	
ugal-	
be-	
-lup-	instrumentality

Verbal suffixes relating to motion:

-uk, -buk	toward the speaker
-ue, -bue	from the speaker (cf. ablative of nouns, -uwe)
-giti	up
-giliwe	down
-c	motion
-a-hat	through
-am, -awam	to?
-us	up?
-wa	
-aya	
-u	

Modal-temporal suffixes of verbs:

-ye	imperative
-ce	optative
-ès	negative
-i	present
-a	aorist, narrative past
-ic	present participle
-ac	past participle
-lèki	recent preterite, completed
-aiki	more distant preterite, completed
-gul-aiki	distant preterite, completed
-alamaik	indefinite perfect
-hi	future
-aca	future-desiderative
-iki, -icki	future-potential
-gaña	inchoative
-ue	inchoative? (cf. suffix of motion from)
-uc	frequentative, usitative (cf. suffix of motion toward)
-du-we, du-we-we, -du-hai	conative
-hai, -ihai	
-iduñ	dubitative

It will be seen, first of all, that the affixes in this list include both prefixes and suffixes. In this respect Washo differs radically from several Californian languages, such as Yokuts and Yuki, and probably Costanoan and Esselen, which employ only suffixes. Among the more distinctly grammatical affixes the pronominal prefixes, both those indicating a single person and those indicating the relation of two persons to one another as subject and object, are conspicuous. In the fact that the pronominal elements when joined to other stems appear only as prefixes, Washo agrees with probably the majority of North American languages, there being evidently some tendency on this continent, broadly speaking, for the pronominal elements, and besides these but few classes of affixed elements, to be prefixes rather than suffixes. Among Californian languages, in Yokuts and Yuki the pronouns

are neither prefixed nor suffixed, but are always independent words; in Costanoan this is also virtually the case, although the pronouns are quite regularly preposed.

As distinguished from the prefixes consisting of pronominal stems, there are in Washo a number of suffixes added to pronouns to indicate number and other grammatical ideas. The Washo noun is subject to a large series of suffixes indicating local and instrumental relations, but to no others. There are no affixes denoting purely logical or grammatical cases and practically none of number. Affixes to the verb, other than the pronominal elements, comprise both prefixes and suffixes and fall quite distinctly into three classes: first, instrumental prefixes; second, suffixes of motion or direction; and third, the various modal and temporal suffixes analogous to those found in most languages. All three classes are numerously developed in Washo. Instrumental prefixes occur in other American linguistic families, such as Siouan.[1] In California they are also found. They occur in Pomo, and Dr. Dixon has found similar affixes in Maidu, which, it will be remembered, is territorially adjacent to Washo. Yokuts and Yuki are known to lack such instrumental prefixes, and the same is probable of a number of other Californian languages, besides Shoshonean. The Washo suffixes of motion sometimes occur in pairs, such as those denoting motion respectively toward and from the speaker. The exact meaning of a number remains to be determined. Suffixes of motion precede in their position on the verb those of the third class, the modal and temporal suffixes.

[1] Athabascan (P. E. Goddard, Morphology of the Hupa Language, present series, Vol. III) possesses verb-prefixes denoting objects or substances, such as mouth, fire, water, but uses them neither instrumentally nor objectively, but only with reference to motion or position: ya-, air; ye-, house, basket, hollow object; nō-, end; sa-, mouth; ded-, fire; te-, water. Sa- cannot be used in such compounds as "to bite with the mouth" or "to hurt the mouth," but only in words like "to put into the mouth," "to shoot the mouth," where motion (or position) is described by the prefix. These Athabascan prefixes are very similar to the corresponding prefixes of Washo and Siouan, with apparently the one difference that they can be used only instrumentally in the latter languages, and only adverbially, with reference to motion or position, in Athabascan.

PRONOUN.

As in many if not most American languages, the part played in Washo by the pronouns themselves, that is the independent pronominal words, is slight, being largely made up for by the all-important pronominal affixes. These affixes and the independent words are generally more or less similar, so that the affixes may be regarded as abbreviations of originally independent stems, or these words as expansions of originally synthetically used word-fragments. In the objective verb, where two persons are in question, there are forms appearing to be combinations of two simple pronominal elements, but there are also forms which are not thus derivable. While, owing to the absence of complications on account of number, these bi-personal transitive pronominal affix-forms are not very numerous or formidable, still, because the relation or similarity to the independent pronouns fails in the case of certain of these double forms, Washo must be reckoned with the pronominally incorporating languages, or those in which the pronominal verb affixes are so closely amalgamated with the verb stem or other component parts of the verb as not to be identical with the independent unaffixed pronominal stems of the same meaning.

The pronominal affixes of the noun and of the intransitive verb, in the one case possessive, in the other subjective, are identical and their use is exactly analogous. This is a common phenomenon in American languages and it does not seem necessary to derive from it the conclusion, as has often been done, that the verbal-pronominal relation is in fact a possessive one and that the form which is the equivalent of *I run* means really *my running.* Such explanations originate from conceptions based on our own European languages, for which, if such phenomena occurred in them, the explanations would perhaps be justifiable. In the Indo-European languages the pronouns are whole words independent of any others in the sentence, and the possessive pronouns are possessive case-forms of these stems, even though the phonetic form and origin of these case-forms may be different from the corresponding possessive case-forms of nouns. If therefore a

possessive pronoun in an Indo-European language were found used as the subject of a verb, the explanation could perhaps not well be other than the one in question. In American languages, however, especially those showing a considerable development of pronominal incorporation in noun and verb, conditions are quite different. Pronouns are represented in these languages not by independent stems but by synthetic particles. Far from the possessive particle used with nouns being a possessive case formation of the pronominal stem, there often, as in Washo, is absolutely no case-expression of the possessive relation in the language, the only means of indicating this category being in fact through the use of the pronominal element itself. Such being the circumstances, there is therefore first of all no real possibility of this element being actually possessive in form, analogously to the possessive pronouns of Indo-European languages; and secondly, there is no reason why it should be considered so. With the possessive *my* lacking in the language, *I house,* if the context or the form of the word shows *house* to be a noun, can only mean what in English we call *my house.* There is therefore theoretically nothing lost by the employment in these languages of the same pronominal element in the verb and noun in such ideas as *I live* and *my house;* and this being the case, it is not surprising that only one form does occur. But to regard this undifferentiated form as actually subjective, and its use with possessive function in the noun as a crudity of the language, or as actually possessive and its use in the verb an indication of a material conception of verbal action as being a possessive relation, is without warrant. It can not be affirmed that Washo says either *I house* or *my live;* it uses an undifferentiated affix, which in itself is neither possessive nor subjective, but which has possessive force in the noun and subjective force in the verb.

An explanation similar to the one here discussed has been applied to a phenomenon occurring in a number of American languages, though not in Washo, namely, the similarity of the pronominal elements expressing the subject of an intransitive verb and the object of a transitive verb. The explanation for this circumstance has been that the intransitive, especially in the case of verbs of mental action or experience, is really an imper-

sonal transitive verb with the person in question as its object, so that when the language says "me thinks" it really says "it thinks to me." But here again the incorporating American language differs from Indo-European in that its pronominal forms are inherently not words but only fragments of words, which need no case suffixes, or if they had them would lose them in composition; and second, in that there are no forms whatever to express the logical case relations, whereas in Indo-European the pronoun, appearing as an independent word, is like the noun unable ever to escape the stamp of case. In Indo-European *I* and *my* and *me* must always be differentiated; even if their forms become homonymous, the three are kept clearly apart in the consciousness of the language. In the American languages in question, the three ideas of *I, my,* and *me* are not thus inevitably differentiated, and there is no a priori reason why they should be. If there is anything to show that a certain pronominal element is the object of the verb which it accompanies, there is nothing lost in efficiency of expression if this objective element is identical in form with the element which is the subject of verbs or the logical possessor of a noun. There is thus no necessary reason whatever for the differentiation of the forms expressing these three categories, except in the case where two pronominal forms occur directly in combination, namely, in the subjective and objective relations of the transitive verb. This double relation, if position and other means of grammatical expression fail, practically enforces at least one differentiation in the pronominal forms. But given this one differentiation, with its resultant two forms for each person, there is no theoretical reason why either of these two forms should not be used for any combination of two or three of the four categories: —possessive, intransitive subject, transitive subject, and object,— except of course the last two. As long as usage has once definitely established in a language, from whatever cause, that the object and the intransitive subject are alike in form, and the transitive subject and possessive also alike, the expression of ideas is as clear as under any other arrangement. If this distribution of the two or more differentiated pronominal forms among the four categories of meaning expressed by pronouns, were the only one found in all languages, there might be some reason for believing that the

transitive subject was really a possessive and the intransitive subject really an object, and that instead of *I see him* and *he looks,* languages said *my seeing him* and *it looks to him.* But the fact that there are languages in which other combinations of the four categories are expressed by single forms, shows such an explanation to be untenable. When, for instance, the objective pronominal element is identical with the possessive[1] instead of the intransitive subjective,[2] when the intransitive subject is in one language identical with the transitive subject,[3] in another with the possessive,[4] in another with the objective,[2] no reasoning of the kind can be sustained. The fundamental error in such explanations is that they apply ideas derived from the independent pronominal words, necessarily marked for case, in Indo-European, to the essentially synthetic pronominal elements, which are both undifferentiated and undifferentiable for case, in many incorporating American languages. It is undoubtedly true that when in one language the objective element is identical in form with the subjective and in another with the possessive, these circumstances are not meaningless and fortuitous; and a knowledge of the causes of the phenomenon in each language, and of the difference between them, if it can be obtained, is of the highest interest and value. But such inquiries must be made on the basis of the specific internal evidence furnished by each language and not by the mere direct application of principles derived from the knowledge of more familiar languages; principles which may be, and in certain cases unquestionably are, inapplicable to American languages.

INDEPENDENT PERSONAL PRONOUNS.

The Washo pronoun shows three numbers, singular, dual, and plural. The stems, contrary to what occurs in many American languages, remain the same for each person throughout all numbers, being modified only by affixes. As is frequently the case in American languages, there is no independent form for the third person. In the pronominal affix-elements forms occur not only

[1] At least similar in Creek.
[2] Haida, Tlingit.
[3] Nahuatl, Otomi, Heiltsuk.
[4] Chumash, Costanoan.

for a reflexive but for a direct third person; but even then the third person is often indicated by the omission of any affix, not by any positive element. The stem of the first person seems to be l-, of the second person m-. In the independent forms of the pronoun these appear as le and mi. In the affixed forms the first person is represented either by l- or di-, the second person by m- or um-, according to phonetic circumstances; the third person either not at all or by da-, and the reflexive by gi-. When two pronouns are brought together in the verb in the transitive objective conjugation, these same forms are in some cases merely placed together, whereas in other instances there are forms which cannot be derived from any simple combination of the single forms. The dual in the independent pronoun is indicated by the suffix -ci, the plural by -u. In the first person, at least in the dual, the inclusive is distinguished from the exclusive by the addition of another -ci. It is curious that the same suffix should thus be used, even to duplication in the same word, to express ideas apparently as distinct logically as duality and the inclusion of the second person with the first. It would seem from this case, as from others, such as Dakota, that there exists a tendency in language, or at least in American languages, to connect, or to fail to distinguish between, the two categories of duality in the pronoun and of the difference between inclusion and exclusion of the second person.

The independent personal pronouns accordingly are the following:

	Singular	*Dual*		*Plural*
		Exclusive	*Inclusive*	
1.	lè	lèci	lècici	lèu
2.	mī		mici	miu

These independent personal pronouns receive the locative case suffixes or appositions exactly like nouns. Thus: lè-wi, I-on, on me.

As has been stated, the syntactical functions of the pronoun are expressed normally through the synthetically used affix-forms, so that the independent pronouns occur chiefly with an emphatic force. This being so, it is not surprising that these independent forms seem to be used alike subjectively, objectively, and posses-

sively. They must be regarded as standing outside the essential structure of the sentence except in so far as they are connected with it by being in apposition to the pronominal elements combined with the noun or verb.

The pronouns are made especially emphatic by the addition of the suffix -k.

mi-k m-iidi, you yourself told it.

le-k l-eed-ac, I am the one who said it.

The essentially reflexive stem gi is frequently used with this suffix.

gi-k iidi, he said.

Even the demonstrative stems appear with this emphatic suffix -k.

le-yuli-duhai ha-k l-èedi-c-da, they want to kill me because I said that.

DEMONSTRATIVES.

The demonstratives show three stems, which are more or less coördinated with the three persons. The simplest forms of these stems occur in the demonstrative adverbs. The substantival or adjectival demonstrative pronouns are built up from these adverbs by the addition of the suffix -di. There is no distinction in form for substantival or adjectival use: whether it is said "this one goes" or "this man goes," "this" is identical.

here, near me	wā	this, near me	widi
there, near you	hā	that, near you	hādi
there, distant	dī	that, distant	dīdi

INTERROGATIVES.

The interrogative pronouns go back to two stems, a commoner ku- and a less frequent hu-. Most forms end in -a. The interrogative particle hec, an independent word, is regularly used with all interrogative pronouns. It would seem from this that the interrogatives without the interrogative particle may be indefinite in meaning.

who	kudiñ-a	
what	kuñate	hutañ-a
where	kuñ-a	
why		huña
how many	kuteciuña	

Huña and kuteciuña are the only ones of these forms that have not sometimes been found without final -a, though all usually have it.

NOUN.

There are three principal subjects to be considered in connection with the Washo noun. First, while there is no trace of any syntactical cases, there is a vigorous development of locative cases and other suffixes of more or less material as opposed to formal meaning. Second, while a pure plural seems to be wanting, there is some development of categories related to the plural. Third, is the combination of the noun with the pronominal elements.

CASE-SUFFIXES.

As in so many American languages, syntactical cases are wanting in Washo, the subjective, objective, and possessive being identical in form. The language being an incorporating one, that is, one in which the relations of subject and object are indicated in the verb and the possessive relation is expressed by pronominal affixion to the noun, this lack of formal cases is not so much felt. What would in other languages be the possessive case relation is expressed by juxtaposition of the two nouns standing in this relation, the possessor showing the form indicative of the third person possessive,—which, it must be remembered, is expressed not by an affix but by the absence of affixes from the stem.

The locative and instrumental case suffixes, postpositions, or appositions, as some would prefer to call them, are numerous, and the following list probably does not exhaust their number. There is no doubt that as they are used on the noun they are actually suffixes and not independent postposed particles equivalent in their employment to our prepositions. Nevertheless their union with the word to which they refer is not very close, as appears from the fact that in the case of pronominal words a syntactical suffix or particle is sometimes interposed between the stem and the "case suffix." Thus, in huñate hec lu, what with ?, the intervening hec is the independent interrogative particle. On the

other hand forms like laca, for le-aca, are evidence of closer union between stem and suffix.

-a	in, to
-aci	from
-awic[1]	to, toward
-uwe[1]	from
-adi[1]	in, within
-digu[1]	in, within
-aca	in, within
-dulil[1]	next to
-leleu[1]	near, close to
-iwi	on
-elmu	under
-haka	in company with
-lu	with, by means of, within a period of time

PLURAL.

There does not seem to be a plural in Washo which corresponds to that of English. Questions in sentences so framed as to bring out the plural, usually resulted in words showing one of two forms, the first with final reduplication, the second with the suffix -*k*ic. The fact that neither of these forms was used with numeral adjectives, and that both were wanting in other cases where there was little doubt that the noun had a plural meaning, makes it almost certain that there is no true plural in the language. What the two forms used actually designate, is not clear. The reduplication naturally leads to the surmise of a collective or distributive. The suffix -*k*ic when appended to parts of the body seems to designate loose or acquired parts as distinguished from parts of the body in their normal position in the living individual. Most nouns seem to be used with only one or the other of the two forms. This applies both to names of animals and inanimate objects. Nouns denoting persons seem always to be reduplicated instead of having the -*k*ic form. The word moko, knee, has been found in both forms, moko-ko and moko-*k*ic, the latter said to mean separate knees scattered about, or a pile of knees.

[1] Found once.

Nouns found with final reduplication:

dim-layāa-ya	my wives
dik-milū-lu	my friends
tamomòo-mo	women
me'lū-lu	old men
me'hū-hu	boys
wacīi-ciu	Washoes (wa'-ciu)
palèe-leu	Paiutes, Paviotsos (pāleu)
tabobòo'o	whites (tabòo = tabò'o?)
di-gucu-cu	my dogs
gusu-su	buffalo
memdewi-wi	deer
hañakmuwe-we	elk
k'ewe-we	coyotes
malosa-sa-ñ	stars
meskitse-tsa-t	arrows (meskitset)
baloxa-xa-t	bows (baloxat)
tawii-wi	knives
mokòo-ko	knees
tèlī-li-w'hu	men (tèliw'hu)
cau-au-lamhu	girls (caulamhu)
ñauñ-auñ-añ	babies (ñauñañ)
dañ-añ-al	houses (dañal)
metuntucu	old women (nentucu)

Nouns found with the suffix *-k*ic:

aiyas-*k*ic	antelopes
tuliici-*k*ic	wolves
peleu-*k*ic	jackrabbits
tsali-*k*ic	cottontail-rabbits
mogop-*k*ic	foxes
tubupiwi-*k*ic	skunks
hòla-*k*ic	badgers
bāsat-*k*ic	ground-squirrels
bīwi-*k*ic	tree-squirrels
delem-*k*ic	gophers
patalñi-*k*ic	eagles

*k*āgi-*k*ic	crows
tèk-*k*ic	stones
mayop-*k*ic	feet
layuc-*k*ic	hairs
daliñ-*k*ic	arms (separated from the body)
mòko-*k*ic	knees (detached)

The final reduplication is quite regular when the last syllable of the unreduplicated noun consists of a consonant followed by a vowel. When the last syllable ends in a consonant this occurs in a reduplicated form on the second of the pair of syllables, but not on the first. It can therefore be said that in words ending in a consonant this final consonant is lost before the syllable added by the reduplication. Certain words show reduplication of a syllable within the word or are somewhat irregular.

That the suffix -*k*ic does not occur with any meaning akin to that of a plural on nouns denoting persons, may show that this suffix is not the exact equivalent of final reduplication. That on terms denoting parts of the body this suffix signifies, as has been stated, that they are detached or acquired, does not seem to be due to any inherent or primary significance of the element, but rather to its collective or distributive denotation which is not ordinarily applicable to parts of the body in their living function or position. A suffix -*k*ic occurs also on verbs with an unquestionably collective or distributive meaning, though whether collective or distributive could not be determined on account of lack of connected textual material.

dik-milu-lu l-ayuc yok'am-*k*ic-i, my-friends my-hair pulled-out.

dik-milu-lu lek'-ek'-eñ l-ayuc yok'am-i, my-friends one-each my-hair pulled-out.

dik-milu-lu *p*akārec l-ecl-i, my-friends a-head-of-beef I-give.

dik-milu-lu *p*akārec l-ecli-*k*ic-i, each-of-my-friends a-head-of-beef I-give.

icda mīle d-añal dībi*k*eñ mīpul-*k*ic-a, then all the-houses bones were-full-of.

dèk'cu-*k*ic-as, many coming.

POSSESSIVE PRONOMINAL AFFIXES.

The union of the possessive pronominal elements with the noun discloses some of the most characteristic features of the Washo language. To begin with, the topic can be simplified by eliminating the dual and plural from consideration. As there are no special pronominal forms for these numbers, the dual and plural of the possessive pronouns are expressed in two ways: either by placing before the noun, but as a separate word, the independent form of the pronoun in the number required; or by suffixing to the noun to which the pronominal element is prefixed -ci or -hu, the suffixes of duality and plurality otherwise added to the independent pronouns. The latter method has been found only in the first person. The former, that of indicating the number by the apposition of an independent pronoun in the dual or plural, has been found in both the first and second persons. The plurality of the noun as distinguished from that of its modifying pronominal element, that is to say the presence or absence of its final reduplication or the suffix -*k*ic, does not affect the prefixed pronominal elements and may also be disregarded in the present connection.

l-añal	my house
leci l-añal	our (d.) house
m-añal	thy house
miu m-añal	your house
di-tāwi	my knife
leci di-tāwi	our (d.) knife
leu di-tāwi	our knife
leu di-tawīwi	our knives
di-hañа	my mouth
di-hañа-ci	our two mouths
di-hañа-hu	our mouths
l-ādu	my hand
l-ādu-hu	our hands
miu m-ādu	your hands

In their relation with the possessive pronominal elements, which are always prefixed, the nouns are divisible into two great

classes, those beginning with a vowel and those beginning with a consonant. Those with initial vowel indicate the first person by l- and the second by m-. Those with initial consonant indicate the first person by di- and the second person by um-. A difference of greater importance between the two classes than this difference of the prefix forms for the first and second persons, is the fact that initially vocalic words in the absolute form, that is to say when unaccompanied by any pronominal element, show a prefix or initial element d-, whereas words beginning with a consonant lack this d-. If it were not that the presence of this d- in the absolute form of the noun is conditioned so rigorously by the phonetic form of the beginning of the word, it would be difficult to avoid the conclusion that this d- had some important structural function. The two initially vocalic and consonantal classes of nouns differ also in the expression of the third person. Nouns beginning in a vowel express pronominal possession of the third person by the absence of any prefix, so that the initial d- of the absolute form of the word,—which, as the language is first learned, gives the erroneous impression of being the stem form,—is lost. D-aadu is hand, aadu his hand. The second or initially consonantal class of nouns, which lack the initial d- in the absolute form of the noun, usually but not always show a pronominal prefix in the third person. This prefix is da- or de-. Certain nouns of this initially consonantal class, however, resemble those of the initially vocalic class in lacking every pronominal prefix in the third person. These nouns include not only words like dog, which differ in the absolute (suku) from the pronominal (gucu) form, but nouns like tāwi, knife, and mayop, foot, which accordingly are alike in the absolute form and with the possessive of the third person.

The following therefore are the two classes of formations.

I. Initially Vocalic.

Meaning	*Absolute Form of word*	*My*	*Thy*	*His*
House	d-añal	l-añal	m-añal	añal
Food	d-èmlu	l-èmlu	m-èmlu	
Hair	d-ayuc	l-ayuc	m-ayuc	ayuc
Tooth	d-īyek	l-èyek	m-īyek	īyek
Leg	d-ahil	l-ahil	m-ahil	
Neck	d-ību	l-èbu	m-ību	
Hand	d-ādu	l-ādu	m-ādu	ādu
Arm	d-aliñ	l-aliñ		
Heart	d-èmli	l-èmli		
Urine	d-āca	l-āca		
Father-in-law		l-āyuk	m-āyuk	āyuk
Head	d-ihe*p*	l-èhe*p*		ihe*p*

II. Initially Consonantal.

Dog	suku	di-gūcu	um-gūcu	gūcu
Knife	tāwi	di-tāwi	um-tāwi	tāwi
Nose	cuyep	di-cuyep	um-cuyep	cuyep, de-cuyep
Foot	mayop	di-mayop		mayop, da-mayop
Knee	mòko	di-mòko		da-mòko
Eye	wīgi	di-wīgi		de-wīgi
Finger	tulitsek	di-tulitsek		de-tulitsek
Belly	tsigūguc	di-tsigūguc		de-tsegūguc
Son		di-ñam	um-ñam	
Daughter		di-ñamu	um-ñamu	da-ñamu
Father		di-k'oi	um-k'oi	da-k'oi
Mother		di-lā	um-lā	da-lā
Sister-in-law		di-yañil	um-yañil	
Paternal grandfather		di- / la- } bāpa	um-bapa	da-bā'pa
Man's son's child				da-bāpa'
Maternal grandfather		di- / le- } elel-i		
Man's daughter's child				
Elder sister		di-īsa		da-īsa
Elder brother		di-āt'u	um-āt'u	
Paternal grandmother		di- / la- } ama	um-ama	da-ama
Woman's son's child				
Father's brother		di-euci		de-euci
Wife	um-laya	di-m-laya	mi-m-laya	da-m-laya
Friend		dik-milu	u'-milu	
Tongue	madut	dik-madut		
Arrow	meskitsat	di-meskitsat		
Mouth	haña	di-haña		
Thigh	yowi	di-yowi		
Rib	mèmeu	di-mèmeu		
Younger brother		di-beyu		
Younger sister		di-wits'uk		
Dream		di-hamukuyūk		
Medicine	muts'uk	di-muts'uk	u'-muts'uk	

From the fact that the great majority of nouns obtained with initial d- in the absolute form designate parts of the body, it might at first sight seem that this element was an indefinite pronominal

prefix analogous to affixes found in certain other American languages with the meaning "someone's." That this is however not the case appears both from the fact that words like d-añal, house, show this initial element, and that many nouns denoting parts of the body, like madut, tongue, and haña, mouth, do not take initial d-.

It is possible that the initial d- is at least in origin an affix making nouns of verbs. There is evidence for this in words such as d-añal, house, d-èmlu, eat, and d-ime, water, whose stems, lacking the d-, are used as verbs with the meanings respectively of live, eat, and drink. It is true, however, that the more considerable number of nouns denoting parts of the body which begin in the absolute form with d- are not thus analyzable, at least in the present stage of knowledge of the language. On the other hand the explanation of d- as a noun-agent prefix is strengthened by the occurrence of several forms similar to d- and with similar force.[1]

*t*am-atki	murderer (atki, kill)
da-y-atki	the murdered one (his murdered one?)
de-yūlii	a dead one (yūli, die)
deuh-yūlii	ghost, skeleton
deu-beyu	chief
t-īye	good walker (iye, walk)
det-mūci	runner (mūc, run)
dem-gīti-i	biter (gīt-i, bite)

It is to be noted that a few words beginning with m show the prefix of the first person in the form dik- instead of di-. The reason for this anomaly is not clear. That the k is not part of the stem is seen in their absolute form, as madut, tongue, dik-madut, my tongue.

Terms of relationship furnish the only exception to the rule that all nouns of the first class begin with a vowel and all of the second with a consonant. -īsa, older sister, -āt'u, older brother, -ama, paternal grandmother, -euci, father's brother, and -elel-i,

[1] Salinan shows a complicated and little-understood combination of the prefixed possessive pronoun with the noun, accompanied by a frequent t- prefix of unknown value, which present at least some external similarities to the conditions in Washo. Present series, II, 46.

maternal grandfather, all belong to the second class in taking the possessive prefixes di-, -um, and da-. As terms of relationship are not used without possessive prefixes, there is no opportunity of knowing whether or not these words would in their absolute form also belong to the second class and lack initial d-: whether for instance "older sister" *per se* would be d-īsa or īsa. On the other hand two terms of relationship, -ayuk, father-in-law, and -eyec, daughter-in-law, have been found to belong to the first class, to which one would expect their initial vowels to refer them if they were not terms of relationship, and form possessives respectively by l-, m-, and -, like other initially vocalic nouns.

A curious phenomenon is displayed by certain terms of relationship which denote two persons standing in reciprocal relationship to one another, such as paternal grandfather and a man's son's child. These are both expressed by one stem, for instance -bā*p*a. When the older of these two reciprocal relatives is meant, the possessive of the first person is expressed by di-. When the younger is meant, the prefix of the same person is la-, recalling the l- prefix of the first or initially vocalic class of nouns. Thus, di-bā*p*a, my paternal grandfather, and la-bā*p*a, my son's child. In the second person no such distinction was observed. In the third person, according to the informant, there is a difference, perhaps of accent or length of vowel; but the same prefix da- is used for both significations.

The reflexive possessive of the third person, or the possessive referring to the subject of the sentence, is not expressed by da- or by lack of a prefix, but by the prefix gik-. Thus: da-īsa, his, another's, older sister; gik-īsa, his own older sister; gik-beyu-haka añal-i-a, her-own-younger-brother-with she-lived; gi gik-ñamin ugaiami, his-own-child he strikes; da-ñamin ugaiami, her-child he-strikes; gik-īsa-y-ès ipu-a, not-his-own-elder-sister he-found; tabò de-īsa-haka g-ipu-a, a-white-man his-(the white-man's)-elder-sister-with he-(another person)-found.

A double affix consisting of the prefix gum- and the suffix -ci denotes "so and so and his," as in phrases like "he and his brother." Gum- is probably the reflexive gum or *k*um.

John gum-beyu-ci *p*āleu ipu-a, John and his brother found a Paiute.

VERB.

Nearly everything that can be said about the Washo verb is comprised under the head of affixes. These fall of themselves into four well-marked classes, differing both in use and in meaning. First are the pronominal elements, which are always prefixed, and for which there are transitive-objective as well as intransitive forms. Second, also prefixed, but of etymological as well as syntactical function, is a class of prefixes expressing instrumentality or explicitly limiting the nature of the dynamic action of the verb. Third, perhaps somewhat less etymological than the last, but still scarcely purely grammatical, is a class of suffixes denoting motion. Fourth and last is a large group of suffixes denoting tense, mode, and a numerous category of related ideas. With the discussion of these four classes of prefixes and suffixes the examination of the verb is practically exhausted. The stem does not seem to undergo any essential changes. Reduplication is unimportant. A distributive or collective is occasionally indicated by the suffix *-kic*, which is used for the same purpose in the noun. The plural is not expressed, except for the fact that in the case of certain verbal ideas different stems occur for the singular and plural. There is no incorporation of the noun into the verb.

I. PRONOMINAL INCORPORATION.

Pronominal incorporation in the verb must be declared to exist, since not only are the pronominal elements fully joined into one word with the verb stem, but they are simpler than the independent pronominal forms and sometimes differ from them. As in the case of possessive incorporation in the noun, the process of incorporation, in many American languages so intricate, is considerably simplified in Washo by the absence of any indication of number, the singular, dual, and plural being identical.

The intransitive and transitive-objective pronominal incorporations in the verb must be considered separately.

Intransitive.

The intransitive conjugation is exactly parallel to the incorporation of the possessive elements in the noun. There are the same two classes of stems, those beginning with vowels and those beginning with consonants; and the same prefixes, respectively l- and m- in the first class, and di- and um- in the second, denote the first and second persons, with absence of any prefix for the third person. This parallelism between the noun with a possessive pronominal element, and the intransitive verb with a subjective pronominal element, becomes especially interesting in those cases in which the same stem is used for nouns and verbs of kindred meaning. Thus the stem añal means both *to live* and *house, dwell* or *dwelling.* The prefixes used being the same, *my house* and *I live* are identical except for the fact that as a verb the stem is not used without a modal-temporal suffix. L-añal is *my house* and l-añal-i *I live.* Exactly the same relation exists in the case of the stem emlu, *food* or *eat,* and ime, *water* or *drink.*

The initial d- which forms the absolute or non-possessed form of many nouns, and which appears to indicate the object, instrument, or agent of the verbal action expressed by the stem, bears a close relation to the pronominal prefixes, not through any similarity in the nature of its meaning, but on account of being a functional equivalent. Not only is it prefixed exactly like the pronominal elements, but it is alternative with them, being lost when a possessive prefix is used and universally reappearing on certain stems whenever the possessive or subjective prefix is lacking. This d- prefix has been discussed in connection with the noun and its pronominal elements. It need only be said again here that several similar prefixes, such as *t',* dam-, and det-, having agentive force and probably related to d- in origin and meaning, have been found. D- seems more frequently to denote the object of action, that which is eaten, drunk, inhabited; *t',* dam-, and det- appear to refer to an agent.

D-èmlu is food, *t'*èmlu, eater; *t'*ĭye, walker; d-añal, house; d-ime, water; d-āca, urine; det-mūc-i, runner; dem-gīt-i, biter; *t*am-atki, murderer, killer.

Meaning	*Stem*	*I*	*Thou*	*He*
Eat	emlu	l-èmlu-yi		
Walk	iye	l-eye-i	m-īye-i	(gi-)iye-i
Live	añal	l-añal-ii	m-añal-ii	añal-ii
Come	ibi	l-èbi-		ībi-i
Drink	ime	l-eme-i		ime-i
Urinate	āca	l-āca-i		
Run	mūc	dik-mūc-i	u'-mūc-i	(gik-)mūc-i
Hungry	bica'pu	di-bica'pu-i	um-bica'pu-i	bica'pu-i
Dream	gumsūc	di-gumsūc-		
Chew		di-bemūkul-i	um-bemūkul-i	bemūkul-i

Transitive.

In the transitive conjugation, or the incorporation of both subject and object, the bases of the pronominal elements are visible. Nevertheless these transitive pronominal forms are in most cases not simply composites of the subjective and objective pronouns, but inseparable monosyllables. The only exception is the combination of the subject of the second person and object of the first person, where the form is le-um, consisting of the independent pronoun le, I, me, and the pronominal prefix um- denoting the subject or possessive of the second person. This form occurs also as lem. It is doubtful whether it is actually prefixed, that is, joined to the verb stem, or whether it is only preposed.

The remaining transitive pronominal elements are unquestionably prefixes. An -m- occurs wherever the second person is represented either as subject or object. When it is the subject, this -m- forms the last part of the prefix; when it is the object, it is at the beginning of the prefix. This would show that in the formation of these prefixes the subject stood nearer the stem, the object farther from it; in other words, that the objective pronominal element was prefixed to the subjective prefix.

In the transitive first person the l- or d- characteristic of its intransitive and possessive forms always appears, except in the combination of the first person as subject with an object of the second person, where the form is simply mi-, the phonetic sign of the second person having evidently predominated over that of the first to the exclusion of the latter.

In the third person matters are somewhat different. It will be remembered that the third person has no indication in the

intransitive verb, and that in the possessive noun it is represented by a prefix da- occurring only in certain cases. In the transitive conjugation, when the object is of the third person, it seems not to be expressed. The transitive form of the third person objective with a subject of the first person is di-, and with a subject of the second person um-, the same as for initially consonantal intransitive verbs. When however the subject is of the third person and the object of the first or second, an -a- appears as the sign of the third person. This, combined with the elements l- and m- characteristic of the first and second persons, forms the prefixes la-, he me, and ma-, he you. This -a- characterizing the subjective transitive third person does not occur as a separate prefix, much less as a separate word; but it is probably more than a coincidence, though possibly only the influence of analogy may have been operative, that the possessive prefix of the third person found before initially consonantal nouns, da-, also contains -a-. It must of course not be supposed that the analysis which has just been made of the prefixes l-a- and m-a- necessarily represents their actual origin and development, although the order of the two elements in the prefix, object before subject, is the same as in the other transitive prefixes. When both subject and object are of the third person, there is no pronominal indication or incorporation, as is the case also in the intransitive verb of the third person, and in the possessive noun when this is initially vocalic.

	me	*thee*	*him*	*Intransitive*
I		mi-	di-	l-, di-
thou	leum		um-	m-, um-
he	la-	ma-	—	—

Examples:

mi-yatki	I kill you
mi-galāmi	I like you
mi-ugatsap-	I kick you
mi-dam-	I strike you
di-yatki	I kill him
di-galāmi	I like him
di-ugatsap-	I kick him
di-dam-	I strike him

lem-yat'k	you kill me
leum-galāmi	you like me
leum-gīti	you bite me
lèm-dam-	you strike me
lem-i-ugatsap-	you kick me
um-yatki	you kill him
um-galāmi	you like him
um-gīti	you bite him
mi-ugatsap	you kick him
la-galāmi	he likes me
la-ugatsap-	he kicks me
la-dam	he strikes me
ma-galāmi	he likes you
yatki	he kills him
gīti	he bites him
dam-	he strikes him

There are certain phonetic modifications in the transitive verb. Before stems commencing with i, di-, I him, is not used, being replaced by l-, after which the initial i of the stem is changed to e. This is analogous to the process occurring in intransitive i-verbs in the first person, such as ime, l-ème-, ibi, l-èbi-, iye, l-èye-. Before transitive verbs beginning with i the prefix la-, he me, is also changed to l-, and um-, you him, seems to become simply m-. Occasionally other verbs beginning either with consonants or vowels undergo similar changes. Le- and me- are common for la- and ma-, just as the possessive prefix of the third person da- is often de-.

mi-l-ecl-i	I give you
l-ecl-i	I give
l-icl-i	he gives me
mi-l-īkilèki	I saw you
lèm-īkilèki	you saw me
m-īkilèki	you saw him
īkilèki	he saw him
l-īkilèki	I saw him
l-īkilèki	he saw me

The i- in the last two words is said to differ in quality.

le-gīti	he bites me
me-gīti	he bites you
le-duknūc-i	he dislikes me
me-duknūc-i	he dislikes you
le-yuli-	they kill us
me-yuli	they kill ye

As has been stated, number of the subject or object is not indicated in the verb, at least not in connection with the pronouns. The verb forms *I run* and *we run* are alike; but to indicate the latter form the dual or plural independent pronoun is used in the sentence. The dual or plural forms of the pronoun are thus used in apposition, as it were, to the numerically indeterminate pronominal elements incorporated in the verb. In certain cases, however, especially if the subject is of the third person and the object of the first or second, or when both subject and object are dual or plural, the incorporation seems to be dropped entirely and the independent pronouns alone to be used.

tèliwhu di-yat'k iweyèsi	men I-kill constantly
tabiboo di-galāmi	the-whites I-like
tabiboo la-galāmi	the-whites me-like
dimlayaya la-dāmi	my-wives hit-me
dimlayaya di-dāmhi	my-wives I-shall-hit
miu mi-galāmi	ye I-like
lecici cacuduwa	us-two they-fear
miu lèci di-cacuduwièsi	ye we-two do-not-fear
John miu gītilèki	John ye bit

Reflexive.

The reflexive is not indicated by incorporation. It is formed by a suffix *-kum*, which is combined with the pronominal elements di-, mi-, and gi- respectively for the first, second, and third persons. The resulting forms, di*k*um, mi*k*um, and gi*k*um, are perhaps independent words, as they were heard, or possibly compound prefixes in which the reflexive element *k*um intervenes between the subjective prefix and the verb stem. Compare the gum—ci form with terms of relationship, meaning "he and his."

le di*k*um galāmi,	I like myself
di*k*um yāpak-hi,	I will cut myself
leu di*k*um behececlagañaa,	we began to shoot at each other
mi hec mi*k*um la*p*na*p*i,	did you crush yourself?
tabòo gi*k*um galāmi,	the white man likes himself

Imperative.

The imperative is expressed by a prefix ge or *k*e, the original force of which is not clear, but which in general phonetic character, in position, and in use, is like the noun-forming prefix d- and the pronominal prefixes. This similarity is carried further by the fact that those verbs beginning with m which have the prefix of the first person dik- instead of di-, show an imperative in gek- instead of ge-. The resemblance of this imperative ge- to the pronominal forms is brought out still further by the circumstance that when it is accompanied by a pronominal object of the third person, it becomes ga-, just as the indicative forms of the first and second person subject with an object of the third person are la- and ma-. In many cases a suffix or enclitic -ye is used with the verb in the imperative; in other cases it is absent. This -ye would seem to be a particle, and probably an enclitic rather than a structural suffix.

ge-bemūkul	chew!
k'-eye	walk!
k'-eme	drink!
ge-gīti	bite!
ge-gègel	sit down!
ge-luwe	sit down! (plural)
g-aliñ	lick up!
gek-mūc-ye	run!
ge-yeñīc	run! (plural)
k'-èmlu-ye	eat!
ga-ugatsap-ye	kick him!
*k*a-bali	shoot him!
le-gīti-ye	bite me!
*k*a-yali	stand up!
*k*a-hugipus	stand up! (plural)
ga-ugaya	speak to him!

la-ugaya	speak to me!
*k*a-lapnap	crush it!
ge-ugisu	split it!

The optative of the first person, such as *let us,* is indicated by the ordinary pronominal prefix of the first person, which it will be remembered is numerically indeterminate, with a suffix -ce. Whether this suffix is related to the pronominal sign of the dual. -ci, is not certain.

l-èmèlu-ce	let us eat
l-eye-ce	let us walk
l-eme-ce	let us drink
dik-mūc-e	let us run

II. INSTRUMENTAL PREFIXES.

Verb formatives, that is to say, affixes which affect the meaning of the verb itself but not its relation to other parts of the sentence, occur both as prefixes and suffixes. As stated above, the prefixes and the suffixes of this kind each form a class with a different type of meaning. The suffixes seem all to define or restrict the kind of motion expressed in the verb. The prefixes are instrumental. They tell whether the action is performed with the hand, the foot, the head, by grinding, rubbing, or chewing, with the side or with the end of a long object, and so on. Such affixes are found in other American languages and it is probably not an accident that like the incorporated pronominal elements they appear usually as prefixes. In the Dakota language there are five or six such prefixes which are very freely used. Many verbs, comprising about all those expressing dynamic action, are not ordinarily employed as stems, but only with one of these prefixes or with a correspondingly used causative. In California these instrumental verb prefixes are developed in Pomo, and according to the statement of Professor R. B. Dixon similar affixes occur in Maidu. Other languages, such as Yuki and Yokuts, lack them entirely. It is characteristic that both these latter languages are purely suffixing, even their pronouns being used as independent words.

The instrumental prefixes obtained show some variation of forms and their number has almost certainly not been exhausted.

There is only one which is sometimes other than instrumental in meaning. This is dum-, which seems to be used instrumentally with the meaning: *with the end of a long object,* and objectively as referring to a long object. Some of these instrumental prefixes have always, and others sometimes, been found placed directly before the verb stem; but those denoting action with a part of the body, such as liwi- and ñi-, are sometimes followed by -lup- before they are prefixed to the verb stem. This -lup- suggests the instrumental case-suffix -lu.

dum-	with the end of a long object as object of the verb: a long one
uga-, yugi-	with a long object
de-	with the hand (?)
liwi-	with the foot
ñi-	with the head
le-	with the teeth, by grinding, by rubbing
*p*ilu-k-	by turning (?)
-lup-	after instrumental prefixes = with (?)

Examples:

dum-bam	hit with the end of, jab
dum-p'op'o	mash with the end of, as a pestle
dum-bec	throw something long
uga-yam	hit with (the side or edge of) something long
yugi-dip	crush with something long
ugal-dabem	hit with the palm, slap
de-dip	crush with the hand
liwi-lup-gip-us	raise with the foot
liwi-lup-gic-ue	roll with the foot
ñi-dip	crush with the head
ñi-lup-gip-us	raise with the head
le-dip	crush with the teeth, grind with a stone
le-gege	rub
di-*p*ilukw-kikeleuhai	I turn it around
ge-*p*ilu-gep-us-haya	turn (raise) it up flat!

III. SUFFIXES OF MOTION.

The formative verb suffixes, constituting, after the pronominal elements and instrumental prefixes, the third class of verb affixes, are numerous. Some eight or ten have been determined and their number is probably considerably larger. Their meanings are much more difficult to determine than their existence. Two of the most important, which show parallelism in form, denote motion toward and from, especially with reference to the speaker. Another pair, also showing some analogy in form, denote motion up and down. Others also have a specific force, such as expressing motion through a flat surface like a wall. Others, like the suffix -c, are used on verbs of motion, but without any force that has been determined, and are not unlikely indicative merely of motion as such without further definition. Still others probably have exact meanings but these have not been ascertained.

-uk, -buk	motion toward the speaker
-ue, -bue	motion from the speaker
-giti	motion up
-giliwe	motion down
-a-hat	motion through a surface
-c	frequent on verbs of motion
-am, -awam	motion to (?)
-us	motion up (?)
-wa	motion (?)

Examples:

huc-uk-i	blows against us
behec-uk-a	shot at us
ga-ya-buk	run hither!
ge-yeusiw-ok	slide to me!
tugic-uk	look here!
ge-cemic-uk	throw it!
ge-yeusiw-uwe	slide away!
di-liwi-lup-gic-ue-hi	I-foot-with-roll-thither-will
ga-ya-bue	run off
ge-dum-buc-uwe	throw it away endwise!
mi le-uwe yeusiu-uwe-acai	to-you me-from slide-hence-will

di-yeusiu-awam-hi	I will slide to you
di-cum-ahat-hi	I-throw-through-will
di-baya-hat-hi	I-shoot-in-through-will
ge-yeusiu-giti	slide down!
ge-yeusiu-giliwe	slide up!
leye-wa-a	I went home
diyatkiña-wa-a	we killed one more
baaci-wa-a	he went in
bip-os	pick up, raise
u-lep-us	lift
gip-us	lift
ga-hugip-us	stand up, ye!

IV. TENSE AND MODE.

The fourth and last class of verbal affixes comprises all the signs of mode and tense, using these terms in their widest sense, and, like the group of affixes expressing motion, is composed altogether of suffixes. When both a suffix of motion and one of tense or mode are used on a verb, the latter takes the last place. This shows that Washo, like most languages, regards its mode and tense affixes as more formal and less etymological or derivative than indications of the nature of motion. Just so the inchoatives and conative -ue, -gaña, -duwe precede the pure tense suffixes -i, -a, -hi. The list of tense and mode signs determined is a long one even after the limited study so far given to the language, and it can scarcely be doubted that a thorough investigation will reveal many other suffixes. The meaning of some of the endings found is quite clear. In other cases, especially where the tenses are concerned, the meaning is more doubtful, especially as regards the finer shades of difference of significance between one suffix and another. Besides tenses, participles or dependent modes, a dubitative, inchoative, conative, frequentative, and potential have been found.

The imperative seems to be expressed primarily by a prefix ge- or *k'*e analogous to the pronominal elements; but in many cases this is accompanied by a suffix or enclitic -ye. The optative *let us* shows a suffix -ce, which may be only the pronominal suffix

of duality -ci. The interrogative is not expressed by a suffix but by the independent interrogative particle hec. The negative is indicated by ès, meaning no or not. This element is used both as an independent word and as a suffix. The simple phonetic character of Washo sometimes makes it difficult to determine whether two or more syllables are independent words or particles, or merely constituents of a single word; but the fact that this negative particle ès, which at times indubitably occurs as a separate word, is found also between the verb stem and a tense suffix, shows it to be at other times unquestionably a formative suffix.

-ye	imperative (sometimes)
-ce	optative
-ès	negative
hec (particle)	interrogative[1]
-i	present
-a	indefinite past, aorist, narrative tense
-ic	present participle
-ac	past participle
-lèki	immediate past (to-day) completed
-aiki	recent past (yesterday, several days ago) completed
-gul-aiki	distant past, completed
-alamaik	indefinite perfect (action completed but the time of its occurrence indefinite)
-hi	future, without further implication
-aca	future, implying volition
-iki, -icki	potential (can, will, do)
-ue	inchoative
-gaña	inchoative
-uc	frequentative, usitative
-du-we -du-we-we -du-hai	conative
-hai, -ihai	?
-iduñ	dubitative, quotative

[1] In the totally unrelated Yurok language, spoken about the mouth of the Klamath river, hec, häc, is also the interrogative particle. In the same language pa, water, is identical with pa, water, of many Shoshonean dialects—and equally unindicative, so far as known, of contact or common origin.

Examples:

hec:

mi hec lem dam-i	did *you* hit me?
di-gucu hec me-giti-i	did my dog bite you?
le miki hec iye	you saw me?
mi hec um-yatki	did you kill him?
um-baloxad-i hec-i	have you a gun?
huñate hec lu	with what?
mi he mi-*k*um lapnab-i	did you crush yourself?
kuteciuña hec mi-mlaya	how many your wives?
gudiñ hec la-dam-i	who struck me?

-es-:

es	no
*k*i-y-es	it is not he
mi l-iki-es-leki	I did not see you
l-emlu-y-ec-leki	I have not eaten
lak'aia es iibi-i	together not come
le ec di-ugatsab-i	I did not kick him
um-bali-es-icki k'lei	ye cannot shoot us
l-adu-es-i	I have no hand
icda wayatsim-es-a	then there was no smoke
gik-isa-y-es	not his own elder sister
hada-y-es	not there
le-y-ec-tiwa-i	I did not do it
di-yuli-y-es-i-ña k'lei	I am not dead

-i:

dik-muc-i	I am running
m-iye-i	you walk
di-mlaya bicapu-i	my wife is hungry
widi d-emlu añaw-i	this food is good

-a:

l-iki-es-a	he did not see me
dik-milu di-degem-a	I met my friend
dik-milu iid-a	my friend said
ic le-ci di-lu-a	then we two sat down

-ic, -ac:

paaleu	dek'eu	gic-ac	leu	di-mhahau-gaña-a
Paiutes	many	coming-up,	we	began-to-fight.

dik-milu	de-tulitsek-a	bali-ic-ña	icña	iciw-a
My-friend	in-his-fingers	being-shot,	nevertheless	recovered.

icda	di-bali-a	d-emli-a	di-bali-ic	yuli-ac	le-pam-a
Then	I-shot;	in-heart	shooting,	having-killed,	I-went-there.

le-pam-ac	di-bali-a
Having-gone-there,	I-shot.

ida	miile	deudiic	mu*k*agem-a	ic	miile
Thereupon	all	trees	he-asked.	Then	all

siisu	yaasa	mu*k*agem-ic	gii-sa	gaklaac-es-a
birds	also	asking,	they-too	did-not-tell-him.

-leki:

mi l-iki-leki	I saw you
John l-iki-leki eebe	I saw John to-day
l-emlu-leki	I was eating
di-gum-suuc-leki	I dreamed
yeusiu-wuwe-leki	he slid away (several hours ago)

-aiki:

lot di-gel-uc-i-aiki	yesterday we ran
mi l-ecl-aiki	I gave it to you
lot John gum-suuc-aiki	yesterday John dreamed
l-emlu-y-aiki	I ate (several days ago)

-gul-aiki:

mi l-ecil-gul-aiki	I gave it to you long ago

-alamaik:

lak'aliñ dimdañal-alamaik	once I went hunting
dik-muc-alamaiki	once I was running

-hi:

di-mdañal-hi	I am going hunting
da-le-pam-hi	I am going there
dek-lu di-cum-ahat-hi	I will throw through with a rock
l-eme-hi	I drink, I will drink
mi-mutsuk-hi	I will doctor you

-aca:

John me-giti-aca-i	John wants to bite you
le-yuli-y-aca-hai	they will kill me
miw-aca-i	you will be eaten up
yeusiu-wuwe-aca-i	will begin to slide off

-iki:

yatk-iki k'ei	it can be killed
mi-yatk-iki k'lei	I am able to kill you
le-ci-ci yatk-es-iki k'ele	they cannot kill you and me
piteli miu heic-iki	do ye eat lizard?
helmil gua-galisi l-ebikab-iki	in three years I will return

-ue:

muc-ue-i	he is beginning to run
i-aca-ue-i	I begin to urinate

-gaña:

di-mhahau-gaña-a	our battle began
behececla-gaña-a	began to shoot at each other
di-bekel-gaña-a	I began to cut it up

-duwe, -duwewe, -duhai:

leem-yatek-duwe-a	you tried to kill me
le-giti-duwe	he tries to bite me
le-yuli-duhai	they wish to kill me
l-i*k*i-duwewe-hi	I will look for her
i*k*i-duwewe-hi	they are trying to see him
l-aca-duwe-i	I must urinate
mi-giti-duwe	I will (try to) bite you

-hai, -ihai:

gi-l-aklaāc-hai-aiki	he told me
gudiñ-a-hec m-aklaāc-hai-i	who told you?
di-yuli-y-aca-hai	I will kill them
di-pa-ihai	I lost them
mi-u-kal-depem-ihai	I will slap you

-iduñ:

muc-iduñ	I think he is coming running
l-iye-u-eduñ iidi	I guess he has gone
paleu leci icuc-iduñ iidi	the Paiutes are coming to kill us, I hear
ac t'anu wokaya-iduñ id-ac	I heard someone speaking

SINGULAR AND PLURAL.

A number of Washo verbs show different stems in the singular and plural. Sometimes one of the stems seems modified from the other; in other cases they differ radically. This phenomenon is of some frequency in American languages. It has been mentioned by Powell as occurring in Shoshonean, and Dr. Goddard has recently shown it to exist in a very marked form in Athabascan. In California the Pomo linguistic family presents a number of cases, and sporadic instances occur in other native languages of the state. There is not necessarily anything radically different from Indo-European conditions in such existence of totally distinct stems for singular and plural. The phenomenon loses much of its strangeness when we reflect that we have numerous verbs in English which denote only repeated or multiple action. The word *thrash,* for instance, cannot be used of a single striking. It is very probable that the relation between the totally diverse singular and plural stems of apparently the same meaning in Indian languages is to be conceived of as somewhat similar to the relation between our English *kill* and *exterminate.* At least it is not impossible to understand how the relation of meaning between these two English verbs could under certain conditions come to be like that found in the Indian languages between distinct singular and plural stems of the same meaning. One difference is that while we have verbs such as *thrash* and *exterminate* which apply only to plural action, we apparently have none that are necessarily limited to a single action. While the existence of such distinctly singular verbs seems to be contrary to the spirit of the Indo-European languages, yet it must be plain that their occurrence theoretically is not more remark-

able than the occurrence of verbs limited to plural action. When both exclusively singular and exclusively plural verbs exist in a language, it is natural that if the meanings of two are only somewhat akin, there should be a tendency to parallel and pair them until they actually become equivalent to merely singular and plural forms of one word. It is, however, not even certain that the phenomenon is actually pushed to such an extremity in Indian languages, for we know too little about them to say positively that there is no difference in signification other than that of number. It is very probable that in at least some Indian languages there is in such stems the same difference in connotation and even denotation of the verbal action itself, that there exists between English *kill* and *exterminate*.

The parallels just made with English furnish also an explanation of the striking fact that wherever in American languages such distinct stems for singular and plural are found, or where the plural is distinguished from the singular by an affixed element, as in Mutsun and other languages, the plurality of the intransitive verb is determined by the subject and that of the transitive verb by the object. It may be true, as has been said, that the tendency of American languages is to regard the object as more closely related to the verb than the subject; but the fact that words like our English *exterminate* imply, not a plurality of subjects nor even of actions by one subject, but a plurality of objects affected, shows that it is not necessary to have recourse to any such wider-reaching explanation.

	Singular Stem	*Plural Stem*
Sit	gegel	luwe
Stand	yal	ahu
Lie	macam	mayac
Run	mu-c	igelu-c, yeñi-c
Run off	mo-y	igalu-y, yaña-y
Fall over	piwe	heti
Fall off	piti	diti

The distributive or collective suffix *-kic* which has been discussed in connection with the plural of nouns, occurs also on verbs. Instances have been previously given.

VERB STEMS.

A curious phenomenon which has not become very clear is a change of stem in certain verbal roots according to modification of meaning. This takes place both with and without the addition of affixes. In some cases the stem vowel changes, in others the initial consonant. The changes whether in vowel or consonant are always to a related sound, between a and e, e and i, l and d, l and n, etc. Somewhat similar are certain series of apparently distinct verb roots which are akin in meaning and resemble each other in form. It thus appears that more thorough study will either lead to a further analysis of Washo verbs than is now possible, or will discover new processes of stem modification.

uga-yam	to strike with a long object
dam	to strike with a round object
dalik	to strike with the fist
dum-bam	to strike with the end of a long object
lep	to crush
dep	to crush with a round object
de-dip	to crush with the hand
le-dip	to crush with the teeth, a stone, etc.
yugi-dip	to crush with a long object
lap-nab	to crush flat a part of the body
lep-neb	to crush flat a round object
lep-leb	to crush flat a long object

The number of verbs obtained is not inconsiderable, but only in the minority of these has the simplest stem form been determined with any degree of certainty. Even in such cases the roots seem to be frequently polysyllabic. The purely dynamic stems show a greater tendency to be monosyllabic than others. Of the following apparent stems a number will probably ultimately be found to be derivative. It should be borne in mind that the monosyllable muc, to run, is not a radical, as mo-y is to run off, to flee. The plurals of these words, yeñi-c and yaña-y, show a similar relation. It is clear that there are numerous formative affixes that

have not yet been determined. In connection with the subject of verbal radicals, the close relation between many nouns and verbs should not be forgotten.

Monosyllabic:

pa	lose
iw, eu	eat (transitive)
mu	run (sing.)
ip-am	go to
guc	noise, sound
yak, yap'k	cut
suc	dream
bip, gip, u-lep	lift, raise
dam, bam	strike, hit
lep, dep, lal-u	crush, mash
bec, cum	throw
gic, lel-b	roll
yal	stand (sing.)
bal-i	shoot, kill
id	say
is	take
yok-am	pull out, pluck
mac-am	lie (sing.)

Apparently Polysyllabic:

añal	live
giti	bite
i*k*i	see
yuli	kill, dead
yatEk	kill
yoma	kill
emlu	eat (intransitive)
iye	walk
ipu	find
bicapu	hungry
ibi	come
iwa	do

galam	like
hamu	think, wish
bemukul	chew
ime	drink
ugatsap	kick
mutsuk	make medicine
depu	stab
aca	urinate
gayam, dalik, dab-em	strike, hit
ulec	carry
eyud	put on
ugis	split
piwe, piti	fall (sing.)
heti, diti	fall (plur.)
gegel	sit (sing.)
luwe	sit (plur.)
ahu	stand (plur.)
mayac	lie (plur.)
igelu, yeñi, yaña	run (plur.)
damal	hear
dañal	hunt
palal	smell (transitive)
aya	to move running
hucu	to move in the air
bekel	cut up
degem	meet, come to
icuc	come to kill
mahau	fight
cacu	fear
yeusiu	slide
basa	skin, flay
ukai	shout to
yakam	cut
aliñ	lick up
aklaāc	tell to
*p*eyu	buy, pay

ADJECTIVE.

A number of adjectives, such as d-añau, good, *t*-iyeli, large, have the appearance of being derived from verb-stems by the noun-formative d-. Añau, good, has actually once been found without the initial d-, and it is not impossible that this form is to be regarded as verbal and predicative, as contrasted with the substantival and attributive form with initial d-. Other adjectives, such as *t*iyeli, large, and dalyawi, black, have not been observed to undergo any change whether used attributively or predicatively, except that the predicative adjective, like the verb, occupies a place at the end of the sentence, whereas the attributive adjective precedes its noun.

di-gucu *t*iyeli	my-dog is-large
*t*iyeli suku l-epu-i	a-large dog I-found
huñ-a *t*iyeli hec k'eiki	I wonder if he is large
d-añau d-ime	a good drink
widi d-emlu añaw-i	this food is good

NUMERALS.

The Washo numeral system is quinary up to ten and from there on regularly decimal without any discovered trace of a vigesimal method of counting. Six is *five one;* seven, *five two.* Eight seems to be a plural of four. Nine is either *five and four* or *one less.* Ten is *one ten.* Eleven is *ten and one,* twelve *ten and two,* and so on. Twenty is *two ten,* thirty *three ten,* and so on. Similarly, one hundred is *one ten ten.*

The numerals take several forms but can scarcely be said to be provided with classifying affixes. In ordinary counting the numerals up to five end in -ñ, except one and four, which end in -a. When persons are designated, a suffix -u is added before which the final -ñ disappears. This -u is apparently the suffix which is the sign of the plural in pronouns. This is the more probable from the fact that the word for two has -ci instead of -u and that the word for one shows neither suffix. When animals

or inanimate objects are spoken of, the pronominal number suffixes are not used and the final -ñ is also absent. Only the word for one, which in counting lacks the final -ñ, uses it when an animal or an object is designated. When periods of time, or measures other than money, are referred to, the inanimate forms are used, while the noun to which they refer is preceded by a prefix gua- or -kum. This prefix is also used on nouns after the interrogative kuteciña, how many? To express a distributive or collective, such as *one each* or *three at a time,* a reduplication is employed: lek'-ek'-eñ, hel-el-mi-u. As in the reduplication of the noun, this is final, not initial, but it is the first or stem syllable, not the whole word or its last part, which is subject to the reduplication. An appearance of reduplication in the interior of the word is thus given. When persons are designated, these reduplicated forms take the same suffixes as the unreduplicated forms, -ñ for one and -u for numbers above two. A few other forms have been found which give indication of still further modifications of the numerals. Lak'aliñ is once, one time. Heskil-ciñ is two only. Lak'-aia is separately, alone. Numerals are not subject to any modification for designating differences in shape, as in certain languages of the North Pacific Coast.

	Counting	*Persons*	*Animals and Objects*
1	lak'a	lek'liñ	lak'añ
2	heskeñ	heskelci	heske
3	helmiñ	helmiu	helmE
4	hawa	hawau	hawa
5	tubaldiñ	tubaldu	tubaldi
6	tubaldE lak		
7	tubaldE heskeñ		
8	hawāawa		
9	tubaldi ida hawa		
10	lak'a mūtsumi		
11	lak'a mūtsumi 'da lak		
12	lak'a mūtsumi 'da heskeñ		
20	heskE mūtsumi		
30	helmE mūtsumi		
100	la' mūtsum' mūtsumi		

CONNECTIVES.

Connectives or introductory particles are frequently used between sentences and show a much greater variety and finer shades of meaning than in some Californian languages, in certain of which one or two such particles are made to do universal and monotonous service.[1] The principal connectives whose meaning has become more or less clear are the following.

Ic, *then,* appearing to indicate that the action described in the previous sentence is completed or is not continued in the sentence now opening. Usually there is a change of subject.

Ac, *and,* contrasts with ic and indicates a continuance of the action expressed in the previous sentence.

Icda, *then, and then,* is difficult to distinguish in meaning from ic.

Ida has about the force of *thereupon.* It indicates that the action expressed in the previous sentence is over, and denotes something of a break. Usually the same subject is kept in the sentence which it opens.

Icña is *but.*

Iña or -ña has the meaning of *because* and *although.*

Udi is *after.*

Other particles with force evidently related to the preceding are da, a, udic.

ORDER OF WORDS.

The order of words is fairly fixed in Washo. The verb is at the end of the sentence. The subject, if a noun, precedes the object. The normal order thus is subject, object, predicate. The independent pronouns occupy the same position as nouns. As the pronominal affix-elements are prefixed, their general position as regards the verb stem thus is the same as that of independent words. But in transitive forms the object seems to precede the subject in the compound prefix. The attributive adjective precedes the noun. When the adjective is predicate it occupies the place of the verb at the end of the sentence. Of two nouns connected by a possessive pronoun, the one with the pronominal prefix precedes the one in its absolute form.

[1] Cf. the interminable Yokuts ama, then.

TEXTS.

Several unsuccessful efforts were made to obtain connected original texts from the informant employed. Two brief narratives given in English were however successfully rendered by him; and while they may at times depart from true Washo idiom and may not be entirely accurate translations, they are at least approximately correct and their internal structure shows them to be of sufficient coherence to give that invaluable safeguard and necessary means to arriving at an understanding of a language—a context.

I

lak'a-liñ	dim-dañal-alamaik	i-da	memdeuwi	l-i*k*i-a	
At one time	I went hunting.	Thereupon	a deer	I saw.	
icña	l-iki-ès-a	la-palal-ès-a	da-y-ès	huc-uwè-c	
But	it did not see me,	did not scent me,	not	the air moving from me.	
ic-da	di-bali-a	d'èmli-a	di-bali-ic	yuli-ac	
Then	I shot it.	In the heart	shooting it,	having killed,	
le-pam-a	di-bè*k*el-gaña	ac	*t*anu	wokayay-iduñ	
I went up to it.	I began to cut it up.	Then	someone	I seemed to hear	
iid-ac	paleu-duñ	iid-ac	ic-ña	l-i*k*i-ès-a	a-di-yābu'-a
speaking,	Paiute, it seemed,	speaking;	but	I did not see.	I ran off
dik-milu-y-awic	a'	dik-milu	di-dègem-a	*p*ale[u]	le-ci
toward my friend.		My friend	I met.	"Paiutes	us (dual)
icu'c-iduñ	iid-i	di-atuk-ci	dik-milu	di-yām-a	
seem to be coming to murder	I think!	Let us kill them!"	to my friend	I said.	
ic	èi	iid-a	le-ci-ci	k'è	degumbīsi	lèi-ci-le
Then:	"Good,"	he said;	we	(are)	brave,	we are;
kik'et'èkeuk'ecle	ac	le-ci-ci	heskil-ciñ[1]	lei-ci-le		
they are many,	while	we	two only	we are;		
ic-ña	le-ci-ci	yatk-ès-iki	k'èle	le-ci-ci	cacuduwA'a[2]	
but	us	they cannot kill	(us.)	Us	they fear,"	
iid-a	dik-milu	ic	le-ci	di'-lū-'a	himu-acA	
said	my friend.	Then	we	sat down	in the willows.	
i-da	dik-milu	*t*āwi	l-ès-a	meckitset	l-ecl-oc	
Thereupon	my friend's	knife	I took,	arrows	having given him.	
pāleu	lakañ[3]	t'ew'ès	èkayabiki*k*al-ac	le-ci		
Paiute	one	near by	being about somewhere (though not seen)	we		

di-beyeclo[7] de-wigi-a[4] di-bali-AC dik-milu de-tsegūguc-a
shot at him. In his eye I hitting him, my friend in his belly

*k*ī-sa *k*a-bali-oc yuli-a' dik-muw-am-ac[5] mA'ac-am-a[5]
he also hitting him, he died. I having run up to him (lying there),

d'ihep di-bāsa'-ac *p*āleu dew'ès d'èk'eu-gic-as[6]
the head I having skinned, the Paiutes near having come in numbers,

le-u di-mhahai-gaña'-a leu di-kum behec-ec-la-gaña'-a[7]
we and they began to fight, we and they each other began to shoot at.

i-da lakañ[3] di-bali-a di-ukayècla mīu le-ci
Thereupon one I shot. I shouted: "You we

di-cacuduwI-èsi[2] leci-ña[1] mī-u um-bali-ès-icki k'lèi[8]
do not fear! But us you cannot shoot (us).

mi-u ke um-yuli-y-aca-i*k*i-mè'le'[9] l-èed-ic hamu*k*òla
You dead will be." I said (?) they were afraid (?)

heskIl-ci le-ci di-yatk-ic iña behe'èc-ug-a'm[5 7]
two we killing because. Shooting at us thence

dik-milu-haka le-ci di-*k*u akmuyaphay-ac hayeda
(I) together with my friend we dodging and there (?)

lakA[3] le-ci di-yat*k*-iñaw-a[10] ic yaña-y-a ic-da
one we killed another. Then they fled and

le-ci di-k'leiciwa(ñ) yaña-y-a-icña hāwa-u le-ci
we pursued. Although they fled. four of them we

di-yatEk-iñau[10] *t*'ihep di-yāḳam-ay-a lè-ci hawa-u
killed others. The heads we cut off we, the four

ihep dik-milu de-tulitsek'-a bali-ic-ña[1] ic-ña
their heads. My friend in his fingers although being shot, nevertheless

iciw-a ūdi le-ci lè-iyawa'-a ūdi le-u
he became well. After that we two went home. After that we all

di-yewi*k*el lòc-a
war-dance danced.

II.

Iōwi* maduk-tsaitsaiyi gik-beyu-haka añal-i-a lèlEm
Ioi Blue-jay her younger brother with lived. At night

deuh-yuli[11] īibi-a umlaya beyū-a Iōwi *k*a-dāge[12]
ghost came, wife bought, Ioi it was (?)

ic-da *k*-umlaya-e*t*i'-a[13] ūdi-c watli Ioi
Then they were married. Thereupon in the morning Ioi

*Cf. Boas, Chinook Texts, 161, and, for a Yokuts version, II, 275, of the present series.

miiki-ès-etiy-a[13] ic-da de-pèyu maduk-tsaitsaiyi
was gone from there. Then her younger brother Blue-jay

ha'liñ'a è'a lak'A gua-galisi ūdi di-īsa
for a long time was there. One year after, "My elder sister

l-i*k*i-du'wewe-hi iid-a ida mīle deudiic mu*k*āgem-a
I will try to see," he said. Thereupon all trees he asked:

gūñ-a *t*'anu iyewe-hèc-igi yuli-y-udi[1] ic-ña
"Where a person go can after he dies?" But

deudiic ga-klaāc-ès-a ic mīle sīsu yā-sa[1]
the trees did not tell him. Then all birds also

mu*k*āgem-ic gī-sa[1] ga-klaāc-ès-a ic yā-sa *t*eek
asking, they too did not tell him. Then also stone

mu*k*āgem-icki[14] le-*p*eyu-y-ac da mi-*k*uw-am-hi[5] ic
he could (?) ask. "Having paid me, then I will carry you there." Then

*k*e-*p*eyu-y-a ac deuh-yuli itñāwa-y-a *k*e-gūw-am-a[5]
he paid it and ghosts' country to it carried him

d-añal-a ic-da wayatsim-ès-a[15] ic laka t'īyeli
to a village. Then smoke was not there. Then one large

d-añal-a yā-sa i'*p*am-a i-da *p*'āciwa-a i-da
house to also he went to. Thereupon he entered. Thereupon

gik-īsa i'pu-a tat um-yuli-hèc-i mè'ì[8] di-bèyu
his elder sister he found. "(Indicating surprise) are you dead (are you), my younger brother?"

ès-i di-yuli-y-ès-i-ña k'lèi[8] deek lè gubi'-i
"No, I am not dead, but (I) stone me brought,

ic-da k'lèi[8] i-da mīle *t*-añal beyetsEksā-gaña-a
(then) (I)." Thereupon all houses he began to open.

ic-da mīle d-añal dibi*k*eñ mipul-gic-a[6] ic-da
Then all houses bones were full of. Then

lak'a(ñ) deuh-yūli māc-am-a[5] dè-īsa leleu ic
one skeleton lay his older sister close by. Then

huñ-a māda-aca-a hèci hādi-*k*e *t*'euh-yūli iid-a
"What do you wish to do with (question) that (near you) skeleton?" he said

gī[16]
to her.

NOTES TO TEXTS.

[1] A number of compositions or enclitic postpositions of an adverbial nature occur in these texts. They affect numeral, pronominal, and verbal stems. It will be noted that some of these: -udi, *after,* and -ña, *but, however, although,* occur also as connectives or parts of them. In all instances represented in the texts these adverbial elements were heard and written as forming one word with the preceding stem, which however does not exclude their being in reality only postpositions.

heskil-ciñ	two only
leci-ña	but us
baliic-ña	although shot
yuliy-udi	after he dies
yā-sa	also
gī-sa	they too, he also

[2] It is not certain whether this word contains the conative -duwe.

[3] In two of the three occurrences of the numeral *one* with a reference to a person in these texts, its final sound seemed to be -ñ. In sentences obtained independently of the texts, this form laka-ñ was used of objects or animals, and a form lek-liñ when persons were referred to.

[4] There seems very little doubt that the stems wi*k*i, eye, and i*k*i, to see, have a common origin.

[5] Several instances of the use of the suffix -am occur. It seems likely, but cannot be positively determined, that this suffix expresses the idea of motion toward.

[6] In the two instances of the use of the suffix -*k*ic appended to verb stems in these texts, its meaning appears to be collective. This is the same suffix that has been described on nouns.

[7] The three forms of the stem behec, to shoot at, occurring in the first text, include a finally reduplicated form behec-ec- in the passage where repetition or reciprocity is expressed.

[8] The forms k'lèi, k'mèi or mèi, and k'èi, occur frequently in Washo with reference to the first, second, and third person respectively. Their exact force is not yet clear. They seem to be more than merely emphatic forms of the personal pronouns and apparently contain a demonstrative or verb substantive.

nuci-k'lèi	I am worthless
nuci-k'mèi	you are worthless
nuci-k'èi	he is worthless
kudiñ-a-hec k'èi	who is this?
John t'eli'hu k'èi	John is a man
le t'eli'hu k'lèi	I am a man
widi tāwi k'èi	this is a knife
dalyawi-k'mèi	you are black
dalyawi-k'lèi	I am black
le degumbisi k'lèi	I am brave
degumbisi k'èi	it is hard
huña t'iyeli hec k'èi-ki	I wonder if he is big
cèmu k'è-a	he was the very one
cèmu k'è-i	he is the one

[9] This form is not clear and may consist of two separate words. The suffix -aca is usually a future desiderative but in the present case can scarcely express a wish. The following suffix, -iki-, is the usual potential suffix.

[10] The suffix -iñaw, occurring in these two words, has not been found otherwise. If the translation is correct, its force is that of *again, another,* or *additionally.*

[11] The connection between deuh-yuli, a ghost, and yuli, the stem meaning to die, is certain.

[12] The form *k*a-dāge cannot be analyzed. It seems to contain the pronominal element *k*a, *k*e, gi of the third person, and possibly the demonstrative of distance or indefinite reference di.

[13] The two forms here given containing the suffix -eti have not been paralleled in the remaining material obtained. It seems not unlikely that they amplify the verb stem by adding to it the idea of *there.*

[14] Although a potential does not seem called for in this verb by the context, the suffix -icki has been otherwise found with a potential meaning, though less frequently than the similar suffix -iki. Cf. um-bali-ès-icki k'lèi, you cannot hit us, in the first text; also gik-iidi-icke i*k*i-duwewe-i, the-one-who-said-it they-are-looking-for, and tabo mācam-icke lepui, a-white-man lying I-found.

[15] The verb wayatsim-ès-a, there was no smoke, is apparently formed from a noun stem wayatsim, the negative ès, and the preterite -a.

[16] The frequent form gi (*k*a, *k*e, etc.) does not ordinarily seem to occur in Washo except as a prefix. Its position in the sentence proves it to be an independent word in the present instance. It has been stated that when there is any idea of distinguishing between a reflexive third person and a third person which is not so, as between Latin *se* and *eum* or *suus* and *ejus,* gi- is used for the reflexive and de- for the non-reflexive. From the present texts it seems that in connected discourse gi- serves to indicate a change of subject; or, when objective, to express that the person referred to by it is the same as the one indicated by the subject of the preceding sentence. Fuller material is necessary to confirm this interpretation, which if correct would show the Washo pronominal form gi- not to be the exact equivalent of the Latin reflexive, but to possess a force that is primarily distinctive or emphatic. In other words, as long as the same person continues to be the subject, no specific indication of the third person by this or any other element seems to be regarded as necessary. Gi- is reserved to indicate the appearance in the discourse of another person; or, if this person is already sufficiently distinguished by the presence of the noun denoting it or by the context, gi- is then used for the person previously referred to, who has now become affected by the second.

SPECIMEN PHRASES.

mi-l-ecil-hi	I will give it to you
mi-l-ecl-aiki	I gave it to you
mi-l-ecil-gul-aiki	I gave it to you long ago
di-tāwi dik-milu l-ecl-i	I gave my friend my knife
dik-milu-lu tāwi l-ecl-i	I gave my friends (each) a knife
l-èmlu-y-i	I am eating
l-èmlu-hi	I shall eat
l-èmlu-lèki	I was eating
l-èmlu-y-aiki	I ate several days ago

l-èmlu-ce	let us eat
mi-le-utiki	I will eat you
le-u l-emlu	our food
t-ayuc	hair
l-ayuc	my hair
m-ayuc	your hair
gi-*t*-ayuc	his hair
widi ayuc	the hair of this one here
hādi ayuc	the hair of this one near you
widi ayuc	the hair of that one
di-cuyep	my nose
dik-milu cuyep	my friend's nose
d-īyek	tooth, teeth
l-èyek	my teeth
hadi īyek	this one's teeth
suku īyek	dog's teeth
*t'*iyeli cèmu	a large one
dik-milu-lu helme t'āba yatki	my friends killed three grizzly bears
dik-milu-lu hel-el-me t'āba yatki	my friends killed three grizzly bears each
le-di-*k*um galām-i	I like myself
tabò-bo di-galām-i	I like the whites
tabò-bo la-galām-i	the whites like me
widi tabò le-duk-nūc-i	this white-man dislikes me
mi-sa me-duk-nūc-i	he dislikes you also
widi tabò gī*k*um galām-i	this white-man likes himself
mi-l-ī*k*i-ac John um-gīti-leki	I saw you bite John (I seeing you, you bit John)
helme gua-galis-i	three years
helme gua-p'auud-i	three nights
heske *k*um-èbey-i	two days
guteciñ-a *k*um-èbey-i hèc	how many days?
heske *k*um-tsiñam l-ème-i	two baskets I drink
John laka bècu l-ecl-i	I gave John one dollar
John kawaiu l-icli	John gave me a horse
laka *k*um-tsiñam d-āca	one basketful of urine
l-āca	my urine
l-āca-hi	I shall urinate
l-āca-ue-i	I begin to urinate
hūc'-uwe	blows (away)
hūc'-u*k*i	blows hither
*k*a-yāb-u*k*	run hither!
*k*a-yāb-ue	run away!
di-mdañal-hi	I shall go to hunt
*k*a-mdañal	go hunt!
dik-mū-c-alamaiki	once I was running
yatk-iki k'èi	it can be killed
mi-yatk-iki k'lèi	I can kill you
di-atu-hak leci di-igelhuca	my older brother and I were running

laka le-ci di-yatk-iñaw-a	we killed one more
le-ci lek'-ek'-e le-ci di-yatk-iñaw-a	we each killed one more
gik-īdi-icki i*k*i-duwewe-i	the one who said it, they are searching for him
lèk l-èd-udi dik-mo-y-i	after I said it, I ran off
īd-ac dik-mūc-i	he having told me, I ran
dik-mūc-ac īd-a	I having run, he told it
l-ādu	my hand
l-ādu-ès-i	I have no hand
l-ādu-i	I have a hand
di-lep-le*p*-i	I mash something long so as to be flat
la-lap-lub-i	a blister

VOCABULARY.

In the brief field study given to Washo, no attention was paid to securing a vocabulary other than as a means toward phonetic and grammatical investigation. There was no intention of presenting the imperfect lexical material thus obtained, until it was realized that no vocabulary of Washo has ever been published, and that the determination of the language by Powell as constituting an independent family, however correct it may be, has never been rendered verifiable by the general availability of the information used for the determination. May this be justification for the quality of the appended vocabulary. While no lexical comparisons with other languages have been made, an acquaintance with Shoshonean and most the languages of California leads the author to conviction that Powell's pronouncement is right, and that Washo is genetically unrelated to any of the neighboring linguistic families.

Persons:

tèliw'hu	man
tamòmo	woman
mè'lu	old man
nèntucu	old woman
tewīwi	young man
mèhu	boy
caulamhu	girl
ñauñañ	baby

t'anu	person, Indian
tabò	white man
wāc'iu	Washo
*p*āle[a]	Paiute
mòmliu	medicine-man
deu-beyu	chief
deuh-yuli	ghost
mucè*k*eu	monster

Terms of Relationship:

-koi	father
-la	mother
-malolo	parents
-ñam	son
-ñam-u	daughter
-ñam-iñ	child
-ā*t*'u	older brother
-*p*eyu	younger brother
-īsa	older sister
-wits'uk	younger sister
-ba*p*a	paternal grandfather, man's son's child
-elel	maternal grandfather, man's daughter's child
-ama	paternal grandmother, woman's sons's child
-gu	maternal grandmother, woman's daughter's child
-euci	father's brother
-*t*a	mother's brother
-ya	father's sister
-ca'ca	mother's sister
-māca	man's brother's child
-māgu	man's sister's child
-cèmuk	woman's brother's or sister's child
-mlaya	wife
-bu-meli	husband (meli, make a fire)
-ayuk	parent-in-law
-bu-añali	son-in-law (añal-i, live)
-eyec	daughter-in-law
-ulādut	man's brother-in-law
-māc-da-la	man's brother's wife ("my brother's child its mother")
-yañil	woman's brother's wife, husband's sister
-ñam-iñ de-euci	woman's husband's brother ("child its father's brother")

Parts of the Body:

d-ihep	head
d-ayuc	hair
cuyep	nose
wīki	eye
haña	mouth
madut	tongue
d-īyek	tooth
tuli'-tsEk	finger
tuli-pi	nail
d-ādu	hand
d-aliñ	arm
d-utsu	elbow
mòko	knee
d-a'hɪl	leg
yo'wi	thigh
cū	breast
d-acuk	back
tsi-gūguc	belly
memeu	ribs
mukuc	penis
d-ībis	vagina
tsaña	anus
tsi-mībi	hip
dīp	navel
ñauwañ-añal	umbilical cord ("baby live")
āya	intestines
d-emli	heart
d-ilek	liver
tsi-gal	kidney
d-iceu	gall
d-ību	neck
ts'ats'a	chin
tsi-mel	beard
*p*eguhul	eyebrow
di-bi*k*eñ	bone

Artificial Objects:

d-añal	house
balohat	bow
meskitsEt	arrow
tāwi	knife
mutsuk	medicine
ts'iñam	basket
bècu	money (cf. pay)
dayalimi	earth-covered dance-house

Natural Objects:

d-ime, *t*-ime	water
dèk, *t*èk	rock
d-ībe	sun, moon, month
èbe	day
ñauwa	earth
ma'losañ	star
*t*aumahum	cloud
*t*ewes*k*īm	wind
deudic	tree
mak	stick, wood
da-pauwit	night
galis	year
t'-īyu	fire

Animals:

suku	dog
-gucu	dog (with pronominal prefix)
memdewi	deer
hañakmuwe	elk
gusu	buffalo
ayAs	antelope
*k*e'we	coyote
tulīci	wolf
made	bear
t'āba	grizzly bear
peleu	jackrabbit
tsali'	rabbit
mogop	fox
tu*p*īpiwi	skunk
hò'la	badger
bāsat	ground squirrel
bīwi	tree squirrel
delem	gopher
sīsu	bird
patalñi	eagle
*k*āgi	crow
māki	rattlesnake
kòta	frog
pī'teli	lizard

Adjectives and Adverbs:

mīle	all
mīla'a	everywhere (all-at)
èwe	several
iweyèsi	constantly
t'èkyu	many
t'iyeli	large
behètsiñ	small

t-añau	good
nuci	worthless
*t'*al-yāwi	black
dāl-pòpoi	white
dal-cocoñi	red
del-pīlpili	blue
dal-tsatsami	green, yellow, copper
del-elegi	dark red
-bilāta	rich
ye'	yes
ès	no
èbe	today
lot	yesterday
wat	tomorrow
le'lem	midnight
-sa	also
cemu	one, the one

Verbs have been previously given in the discussion of verb stems, and the *Numerals* and *Pronouns* will be found in the sections devoted to these parts of speech.

SUMMARY.

Washo is of a comparatively simple phonetic character which results in transparence of its structure. There is no evidence that all of its radicals are monosyllabic, but it is probable that none contain combinations of consonants. The sounds of radicals and affixes are very little modified by contact with other radicals and affixes. Little composition of independent words has been discovered, but derivation and the expression of grammatical ideas by affixion are considerably developed. Besides suffixes, prefixes are well represented. Reduplication occurs in the verb, noun, and numeral to express repetition, distribution, or collectivity. This reduplication takes place at the end, not at the head of radicals. The independent personal pronouns are little used except for emphasis or distinction. In such cases they are treated like nouns and may receive locative suffixes. The grammatical functions of the pronouns are principally expressed by them in the form of affixes. These are always prefixed. Pronominal prefixes of verb and noun are identical, but there are different prefixes for initially vocalic and initially consonantal words. Certain

stems, whose meaning permits, are used with the same prefix at times as verb and at times as noun, these two different functions being indicated only incidentally by such suffixes of case, tense, or other category as there may be present, and by the context. Most nouns whose initial sound is a vowel are used in their non-pronominal absolute form only with a prefixed d- or related dental sound. Everything except the nearly complete limitation of this d- to initially vocalic stems, argues for the supposition that this prefix is a noun-forming affix or deriver from verbs. In all pronominal forms this d- is lost. As the third person in such nouns, as in certain cases in the verb, is expressed by the absence and not by the presence of any pronominal prefix, there is in such cases an apparent apocope to form the third person. That is to say, *his hand* is in Washo shorter than *hand.* The union of the pronominal prefix to both noun and verb is sufficiently intimate to allow of the language being classed as an incorporating one, and this characteristic is further apparent in the objective or transitive conjugation of the verb, in which the subjective and objective pronominal constituents in some cases form a unit which cannot be positively resolved into the individual subjective and objective elements as they occur separately. But although genuine, the pronominal incorporation is comparatively simple through a complete lack of variation for number, the dual and plural of the pronominal elements being expressed either by apposition of the independent prefixes or by the addition of their suffixes of number to the verb or noun stem. As is theoretically probable and actually usual in incorporating languages, there are no syntactical cases in the noun. There are numerous local and instrumental suffixes resembling cases. In certain instances these are but loosely attached to the noun or pronoun. They differ in nothing from prepositions except in being postposed or suffixed. A true plural is wanting. A distributive or collective which takes its place is expressed either by final reduplication or by a suffix. This same suffix is used also in the verb, in which, however, final reduplication is employed to indicate repetition. Several verbs show considerably or totally different stems for singular and plural, but the majority are as free from any expression of this category as the noun. Verb stems are frequently augmented by

suffixes descriptive of motion and by instrumental prefixes. There are other derivative suffixes, such as inchoatives and conatives, and a considerable number expressing mode and tense. In a combination of several suffixes the more derivative precede, the more grammatical ones follow. There is no passive, and the imperative is indicated by a quasi-pronominal form. Dependent clauses are used, but they are participial or introduced by conjunctions, that is to say non-pronominal, and not relative or pronominal. Demonstrative pronouns correspond in some measure to the three persons of the personal pronouns. They appear to be derived from adverbial stems and not to be used as syntactical elements. There are a number of connectives which indicate with some precision the relation of successive sentences, especially as regards time.

On comparison with neighboring linguistic families Washo shows much morphological distinctness. In general phonetic character and structural transparence it belongs to the Central Californian class, which includes the Maidu, Wintun, Pomo, Yuki, Yokuts, Costanoan, and other families. But it differs from these languages in the important characteristics of lacking syntactical cases and possessing pronominal incorporation, so that it cannot be more than partially included with the Central Californian morphological type. In its possession of instrumental prefixes Washo agrees with Pomo and Maidu of this Central type, but differs from other families of the same group, such as Yuki and Yokuts. As yet there seem to be no special resemblances between Washo and any single families of the Central group. The absence of a true plural from Washo is not indicative of morphological affinity, for with but one or two exceptions all the Californian languages north of the latitude of San Francisco appear to lack a plural, and all to the south to possess it.

The Washo reduplication to express distribution or collectivity recalls the languages of the North Pacific Coast, where this feature is frequently well-developed. It occurs as far south as the Klamath or Lutuami of southern Oregon and northeasternmost California. In California a well-developed reduplication of the noun is found only among the Chumash on the coast of Southern California. Other resemblances of Washo to the North

Pacific Coast languages are however lacking. It does not possess the characteristic substantival word-forming affixes of the Selish-Kwakiutl type, nor the sex-gender of Chinuk, Kalapuya, and Selish, and differs widely in phonetic character from almost all the languages of this region.

As the only Californian language at once east of the Sierras and in intimate contact with Shoshoneans, the question of a possible morphological resemblance of Washo to Shoshonean is particularly important. There is but little evidence of such affinity. The phonetic systems of the two families differ in important points. Above all Washo does not possess the obscure *ü* and *ö* sounds of Shoshonean. These characteristic vowels occur in all the dialectic groups of the Shoshonean family except one in Southern California. They are evidently of some antiquity and possessed of a foothold in the fundamental phonetic system of the family, for they have been impressed by the Shoshoneans on a number of contiguous but independent linguistic stocks, including practically all with which the Shoshoneans are in contact in California[1] and one or more in the Pueblo region. That these sounds are however wanting among the Washo, who as regards degree of contact and similarity of environment and culture are probably more closely linked with the neighboring Shoshoneans than any of the stocks which have adopted these sounds, argues for the inability of Shoshonean phonetics to impress Washo. This conclusion is confirmed by the general phonetic appearance of the two languages, which is decidedly different. Structural affinities are equally lacking. So far as its dialects are known, Shoshonean is without any objective incorporation of the pronoun in the verb. It does affix subjective and possessive pronominal elements, but that these partake of the nature of abbreviations of the independent personal pronouns, and are therefore enclitics rather than essentially affixes, is shown by the fact that at least in certain dialects they can be detached from the verb stem to which they refer and added to any other part of speech;[2] a trait suggesting certain of the languages of the North

[1] Maidu, Miwok, Yokuts, Chumash. See Vol. II of the present series, p. 329.

[2] P. S. Sparkman, Am. Anthr., n. s., VII, 660, 1905.

Pacific Coast rather than any truly incorporating or truly non-incorporating language. Moreover the Shoshonean pronominal affixes are usually suffixed to the verb, whereas in Washo all strictly pronominal elements are prefixed. One of the most characteristic features of all Shoshonean dialects—a feature which occurs in far separated groups of the Uto-Aztekan family and goes far toward establishing their affinity, the occurrence of the noun in its absolute form with certain meaningless suffixes which are invariably lost upon the affixion of a possessive pronominal element—this typical process of Shoshonean is unrepresented in Washo.[1] There appears to be a much smaller development of derivative or semi-grammatical verb affixes in Shoshonean than in Washo. So far as known the instrumental affixes of the latter language are entirely wanting. As regards locative and instrumental case-suffixes the two languages present a similar development, but this they share with numerous other languages, notably in California, so that the force of the resemblance is weakened. Of more importance is the absence from Washo of the Shoshonean objective case. Shoshonean also possesses a true plural, which Washo lacks. Distribution or collectivity seems to be indicated to some extent by reduplication at least in certain Shoshonean dialects, and at times this process may partially replace the usual formation of the plural; but after all such reduplication is comparatively restricted in Shoshonean, however it may be developed in other branches of the Uto-Aztekan family, and does not replace the expression of the regular plural by means of a suffix as it does replace it in Washo. The morphological resemblances of Shoshonean and Washo are therefore even fewer than one

[1] It might seem that the loss or apocope of the initial d- from so many Washo nouns when the possessive prefixes are added to them, resembles the Shoshonean process referred to, but there are several points of difference. The lost element in Shoshonean is always a suffix, in Washo always a prefix. In Washo it therefore occupies the place taken by the pronominal prefix, whereas in Shoshonean this is usually not the case. In Shoshonean there are at least several suffixes quite distinct in form, whereas in Washo they all go back to a single sound, d or *t*. In Shoshonean the suffixes occur on so to speak every noun and are quite clearly meaningless and functionless. In many nouns it is certain that they are not the means of deriving the noun from a verb stem. In Washo in many cases they do thus directly serve to turn verb stems into nouns. Finally, the Washo prefix is restricted to stems that are initially vocalic, whereas in Shoshonean there appears to be no such limitation of the prefix on phonetic grounds.

could from experience normally expect between two distinct but contiguous American linguistic stocks.

But with no leaning toward Shoshonean, and none toward the languages of the North Pacific Coast, the morphological affinities of Washo, unless they are to be renounced altogether, must after all be sought in California. Perhaps when information as to the structure of Maidu and Miwok, the two Californian families in direct contact with Washo, becomes available, such affinities will be apparent. For the present it must be admitted that detailed resemblances between Washo and the Central Californian languages cannot be successfully pointed out, even though a comparison certainly gives a general impression of fundamental likeness. This impression probably rests mainly on the phonetic character and structural clearcutness which Washo shares with the Central Californian languages. The languages of this group which are best known to the author, Yokuts and Yuki, certainly do not show many specific morphological resemblances to Washo. But it must be remembered that these two languages are at some distance, as distances go in the ethnology of California, from Washo, sufficient at least to be separated from it by one or more intervening families; and in comparing a family not with single other families, but with an entire group of families, it is obvious that no resemblances, except in a few points of the most fundamental nature, can be looked for.

The degree of morphological resemblance of Washo to the simple Californian languages therefore still awaits its determination. Positive evidence of any considerable similarities in this direction has not yet been adduced. Significant resemblance to Shoshonean or non-Californian families is clearly wanting. Everything therefore points to an unusual degree of morphological distinctness of Washo. Its lexical distinctness and lack of genetic relationship with any other family are obvious under present conditions of knowledge.

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