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A Grammar of Chemehuevi

A dissertation submitted in partial satisfaction
of the requirements for the degree Doctor of Philosophy
in Linguistics

by

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PUBLICATIONS

LAURITSEN, MARGARET
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1974 Semantic Features in Lexical Acquisition. Papers and Reports on Child Language Development (Stanford University) #8.

ABSTRACT OF THE DISSERTATION

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Professor William O. Bright, Chairman

Chemeheuvi is a Uto-Aztecan language currently spoken by a few dozen Indians living in Southern California and Arizona. This study attempts to provide a fairly comprehensive generative description of Chemehuevi phonology and syntax, using original fieldwork data.

Phonological features used contrastively in the language are proposed, along with morpheme structure conditions and rules for most of the major phonological processes. Several arguments are discussed for the treatment of one of these processes, namely internal consonant mutation.

A set of phrase structure rules generating most types of sentences is presented, each rule being motivated and exemplified in the remainder of the section on syntax. These rules are written with the intention of increasing the burden of the lexicon and semantic component (interpretive rules) in order to dispense with transformational rules which delete or insert lexical material.

With a few notable exceptions most aspects of sentence structure and word order, word derivation and morphology are discussed. Alphabetized word-lists are included in the appendix.

0 INTRODUCTION

0.1 The People

The Chemehuevi Indians currently number somewhat over three hundred. They reside primarily in the eastern portions of San Bernardino and Riverside Counties in California, and on the Arizona bank of the Colorado River near Parker. Their recent homeland is considered to be Chemehuevi Valley, at the eastern edge of the Mohave Desert in Southern California. Officially this area has only recently been returned to the Chemehuevis; from about 1940 to 1970 the tribe was not legally recognized by the Bureau of Indian Affairs. Currently many members are moving back to Chemehuevi Valley as part of an attempt to rebuild and reorganize the tribe.

The Chemehuevis actually migrated into California fairly recently, being the last major wave of Great Basin Indians to travel south.[1] The time of their move apparently coincides roughly with their first entrance into recorded history, some time in the late seventeen hundreds. Within the next hundred years they wandered as far west as the Tehachapi Mountains.

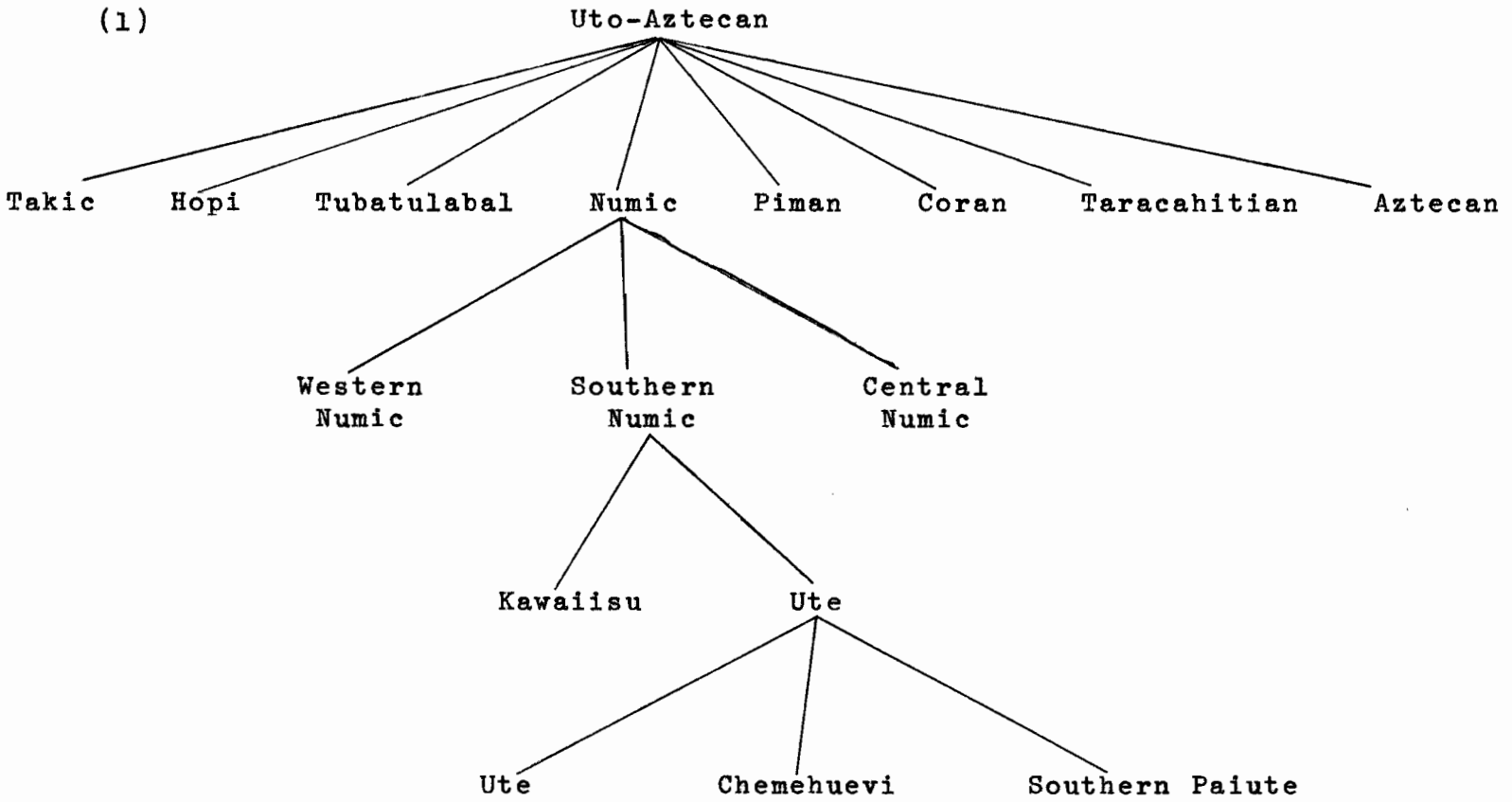
Bands living at Twentynine Palms and along the Colorado River apparently did some farming; however, by and large the Chemehuevis were seed-gatherers and small-game hunters. They enjoyed a rich oral tradition and highly structured tribal life. Territorial rights and clan membership were defined in songs each Chemehuevi youth inherited from his father. The major song cycles were known as the Mountain Sheep, Deer, and Salt Songs.

In addition to basket making, the Chemehuevis were apparently well-known for their practice of "visiting" (constantly being somewhere else), which they do to this day. In the past, Indian agents responsible for various bands would on occasion lose them for years.

The Chemehuevi language is part of the branch of Southern Numic languages, consisting additionally of Southern Paiute, Ute and Kawaiisu. The Numic languages as a whole comprise what was formerly termed the Plateau Shoshonean branch of Uto-Aztecan.

The Uto-Aztecan family of languages stretches down the western United States and into Mexico. Lexicostatistical analyses have suggested that substocks of Uto-Aztecan began splitting up on the order of four to five thousand years ago. Until about forty years ago linguists tended to divide the family into three substocks, namely Shoshonean, Sonoran, and Nahuatlan. This division however was made largely on geographical grounds; as more information was obtained about individual languages, the linguistic basis for such a classification was found to be shaky. In particular, Whorf (1935) suggested that "Shoshonean" be dismantled, and Lamb (1958) did precisely that by proposing that the four subgroupings within Shoshonean be considered direct substocks of Uto-Aztecan. For reference a rough diagram of the current (though not uncontested) view of Uto-Aztecan relationships is given in (1) below.

(1)


Uto-Aztecan
Takic
Hopi
Tubatulabal
Numic
Piman
Coran
Taracahitian
Aztecan
Western Numic
Southern Numic
Central Numic
Kawaiisu
Ute
Ute
Chemehuevi
Southern Paiute

Mary Hanks Molino, my principal informant for over two and a half years, was born in Chemehuevi Valley in 1916. She remembers as a child having few playmates, the older children from the families around her being "away at school." During the cotton season her father would travel down to Parker to work, returning at season's end with staples for the family and frequently candy for the children. It was a two-day walk from Parker to Chemehuevi Valley; the night before his return the family would spot the glow of his campfire in the distant hills.

The Indians in the valley planted cotton on the bank of the Colorado, relying on the annual flooding of the river. In 1940 Parker Dam was built, and Lake Havasu which resulted covered the eastern portion of the valley. By this time the Hankses had moved down to Parker. Most of the family live now in what is known as 'Hanks' Village', a few miles south of town.

When she was older Mary was sent by train to the Indian School in Riverside, from which she graduated in the thirties.

Mary's father was a possessor of the Bird Song, since he belonged to that moiety. In addition he sang the Salt Song[2] at funerals in Parker for many years, being the last head singer in that area. Mary's brothers in turn inherited the Bird Song, but never learned it.

0.2 Previous Work

Very little has ever been published on the Chemehuevi language to date. A few words and notes are recorded in Kroeber's Notes on Shoshonean Dialects of Southern California (1909). One of the more closely related languages, Southern Paiute, is of course extensively documented in Sapir's Southern Paiute, A Shoshonean Language (1930). Some linguists consider Chemehuevi to be a dialect of Southern Paiute--the two are certainly mutually intelligible. They differ now in several phonological rules, and a considerable amount of vocabulary has changed, as have portions of the tense-aspect system. Each language has in addition a subset of personal pronouns the other lacks. Syntactic constraints seem to differ somewhat, to the extent that such constraints can be inferred from Sapir's data.

Sapir's work has been extremely useful, although its concentration is on morphology and phonology rather than syntax, and of course his theoretical approach differs radically. Most subsequent analyses of Southern Paiute have used Sapir's data and many of his generalizations.

On Chemehuevi itself field work has been done recently by Pamela Munro concurrent to my own, and some of her findings have appeared in recent papers (1974a, 1974b).

The most exhaustive work previously done on this language was that of John P. Harrington in the early part of this century. With the (considerable) help of his wife

Carobeth, numerous Chemehuevi texts were recorded, and extensive lists of vocabulary and paradigms collected, along with boxes of field notes. He left behind thousands of scraps of paper with observations and excerpts from the texts. (Harrington had access to an early outline manuscript of Sapir's Southern Paiute monograph, and many of his comments are organized around this outline.)

None of this Chemehuevi material ever appeared in print. Most of it presently resides in the National Anthropological Archives in the Smithsonian Institution.

The nature and quality of Harrington's work are a reflection not of prevailing linguistic theory, but of the eccentricities of the man himself. On the one hand his transcriptions are remarkable in their attention to phonetic detail. Harrington had an incredible ear for pronunciation--perhaps the best of any American linguist, Sapir and Kroeber are both said to have stated.[3] Furthermore he was totally preoccupied with his fieldwork, obsessed with the task of amassing as much data as humanly possibly from languages in danger of extinction, of "rescuing from oblivion information that otherwise would be forever lost."[4] Despite his ruggedly apollonian appearance (according to his obituary he "appeared in Southern California a little too early for Hollywood") and polished manners, he wasted little time on affairs of the heart. Eventually, he married in 1916 a student of his, Carobeth Tucker, who proved to be a valuable

and indefatigable coworker in the field--until in 1919 he sent her to Parker (against her protestations) to interview a Chemehuevi blacksmith named George Laird. Her work with Laird over the next four years gained for Harrington a sizable quantity of high-quality data, but lost for him his wife. Carobeth married George Laird in 1923 and moved with him to San Diego.

The other aspect of Harrington's personality which had consequences for his collected materials was his desire for secrecy and reluctance to share his findings. He feuded constantly with other ethnologists who unwittingly wandered into his language territories;[5] and though he published a great deal (including numerous poems), the amount in print never scratched the surface of his warehouse-fuls of notes and manuscripts. Most curious however was his utter disinterest in the fate of his painstakingly recorded field data, with the exception, toward the end of his life, that it not fall into the hands of the Bureau of American Ethnology, which employed him. Throughout the years, as he accumulated boxes of notes, he would bury them in warehouses and postoffice basements all over the country. These caches are gradually being unearthed to this day.

Carobeth Laird (now aged 78) has recently written a book on the history, customs and oral traditions of the Chemehuevis, which includes a sketch of the language. Less germane to this dissertation is her second book, on her life with Harrington.[6]

0.3 Organization and Theoretical Framework

The grammar is organized into two parts: section one deals with phonology, section two with syntax.

For the phonological analysis of Chemehuevi I am utilizing a generative approach, such as is outlined in Chomsky and Halle's Sound Pattern of English, Harms' Introduction to Phonological Theory, and others. My analysis differs in two respects, however, It has been pointed out that for many languages several so-called morpheme structure conditions must often be restated as phonological rules, for example sequence constraints which apply across morpheme boundaries as well as within morphemes. Stating these rules twice results in an obvious loss of generality. Therefore I am following instead the convention of marking these morpheme structure rules as "persistent" rules, meaning they can reapply as feature-changing rules in the phonological component.

The second departure is that instead of taking advantage of extrinsic rule ordering in writing phonological rules, I have chosen to complicate individual rules somewhat wherever that has eliminated the need for ordering. Of the alternatives to rule ordering that have been proposed, I prefer the convention that rules be allowed to apply whenever their structural description is met.[7]

In the syntax section, I use what is known as the Standard Theory[8] as a point of departure, employing a model

which assumes a syntactic level of "deep structure" independent of the level of semantic representation. The model I ultimately adopt however differs substantially from the Standard Theory in several respects.

One of the most serious criticisms of current transformational grammar is that the model on which it is based is far too powerful, i.e. its "weak generative capacity" is excessive. One would like to say the model defines the notion "possible natural language", however some types of rules permissible in the Standard Theory allow the generation of classes of languages we would not want to call "natural".

In particular, much of the excessive power is due to the fact that currently rules are allowed to delete portions of a string in the course of its derivation. Unconstrained, this type of rule could allow an infinite set of derivations for any given string. Therefore, heavy restrictions have been placed on the types of deletion such rules can effect.

If one accepts the premise that of two models equally descriptive of the data the more tightly constrained one is to be preferred, then one should look for alternatives to those types of rules most seriously increasing the power of the theory.

Reconsideration of the role of the transformational component has recently lead to various "lexicalist" and "interpretive" approaches in such areas of grammar as

nominalization (Chomsky 1970), pronominalization (Jackendoff 1972), derivation, inflection and compounds (Halle 1973, Jackendoff to appear), deletion under identity (Jackendoff 1972) and deletion in general (Shopen 1972).

Shopen in fact proposes the most revolutionary changes in the Standard Theory, essentially taking the lexicalist hypothesis to its logical conclusion. Basically he dispenses with all transformations except those involving certain kinds of permutation. His base rules are somewhat more complex, the bulk of the task of "relating sentence types" being placed in the lexical and interpretive components.

As a model for this grammar I am adopting by and large the theory sketched by Shopen in his dissertation (1972). Several proposals made by Jackendoff (some based on Gruber 1965 and 1967) can be made to complement rather nicely the basic analysis in Shopen, at least for English. Whether either theory, or a combination of the two, can work as well for a more agglutinative language like Chemehuevi will be tested in this work. Some of the strongest arguments raised by Shopen and Jackendoff apply by nature universally (e.g. the problem of excessive generative power). I am convinced of the validity of enough of these arguments to feel the attempt at testing such a model on a language other than English is worthwhile.

I will not attempt to cite here the tremendous amount of evidence amassed in the above sources, nor can I do their

arguments full justice in this short space. I will sketch briefly the basic thrust of the most important (and relevant) points, and give only enough illustration of how the alternative formalism operates to make the following sections of Chemehuevi grammar approachable. (I assume a knowledge of the Standard Theory, or "Aspects model" throughout.)

Since the publication of Aspects several separate issues have arisen to rock the boat and provoke a fragmentation in the original following of the transformational school. One major branch which resulted, Generative Semantics, responded to the problems by abandoning the level of Deep Structure which was inherent, in fact basic, to the Aspects model. The arguments pro and con this issue are well documented elsewhere and will not be taken up here. Basically I accept such a level as a useful and explanatory one in syntax.

The other major branch, called the Extended Standard Theory, has had to counter various deleterious observations (such as the fact that some transformational rules seem to change meaning) by either giving up the claim that all semantic interpretation is done at the deep structure level or by modifying the offending rules. In general, proponents of the Extended Standard Theory have done both. Jackendoff's model allows rules of semantic interpretation to work at all levels of the derivation. Shopen takes many of these rules out of the transformational component and puts them in the

lexicon, in the form of lexical redundancy rules, where meaning differences can be captured straightforwardly.

Other objections to the Aspects model have been raised. Shopen contends that much generality is lost because deictic and anaphoric antecedents for deletion (or pronominalization) are not treated in the same way. His main premise in fact is that "incomplete" sentences, whether subparts (clauses) of other sentences or full utterances in their own right, should be generatable by the syntactic component without recourse to deletion rules. Utterances which an Aspects model would judge incomplete and therefore ill-formed are demonstrated to be often acceptable under the appropriate circumstances. In these cases such utterances have what Shopen calls "integrity" (i.e. are "internally well-formed and complete", as in his examples, A cup of coffee, the theft of the crown jewels from the queen by the Pink Panther, and Into the dungeon with him! Compare with *John sent, which lacks integrity in any situation.) In some instances the hearer supplies the ellipted portions from context or other extralinguistic knowledge in the same manner as he would obtain them from a preceding sentence or clause.

In fact most sentences have ellipted arguments of one sort or another, e.g. John sent a book, where the GOAL (to whom) is left unspecified. A standard analysis could argue that such sentences derive from sentences like John sent a book to $\left\{\begin{matrix}\text{someone}\\ \text{somewhere}\end{matrix}\right\}$. This type of ellipsis Shopen terms

"indefinite" and he distinguishes it from the type involved in sentences like John wanted to. In the latter case the sentence is not paraphrasable by John wanted to do something; it can only mean there was a definite argument ellipted which the speaker assumed the hearer knew. Shopen argues that the second type, which he calls "definite ellipsis", results in sentences equally as grammatical as the first, and that both should be generatable by the syntactic component. The second type involves "unrecoverable deletion" and could not be handled transformationally without giving enormous additional power to the model.

Shopen does not attempt to specify semantic functions of arguments in the deep structure. Rather, he provides each verb (and some nouns, etc.) in the lexicon with (a) a syntactic strict-subcategorization feature, showing how many NPs and PPs (arguments) it cooccurs with and their linear arrangement, and (b) a template which specifies the function(s) of each of those arguments. The example in (2) below is from Shopen, though it closely parallels similar examples in Jackendoff and Gruber:

(2) $$\left[\begin{array}{l} \underline{\text{give}},\ +V \\ [\underset{y}{NP}\ \_\_\_\ \underset{x}{(NP)}\ \ \underset{z}{(PP)}] \\ [\text{CAUSE } y\ [\text{CHANGE } x\ y\ z]] \end{array}\right]$$

The predicate CAUSE takes two arguments, the agent and the thing caused, in that order. The predicate CHANGE takes three arguments, THEME, SOURCE, and GOAL, in that order.

The symbols x, y, z, etc. are used as indices, thus the above entry says that the subject in a sentence with give is both the agent and the SOURCE; the subject causes the noun in object position to move from the subject to the object of the preposition. (For why the unmarked preposition in this case is to, see Shopen p. 128.)

Given the fact that one needs such features in the lexicon anyway, respecifying the possibilities in the Deep Structure (as a Case Grammar does) is unnecessary and redundant. Furthermore, such specification may not even be possible in the syntactic component; the mapping of the notion "subject" onto various semantic functions, for example, is less than straightforward.

Omitting deletion rules from the grammar has the following consequences:

a) Clauses where the subject is pronominalized or missing will be generated with a pronominal subject[9] or no subject at all, respectively.

b) Conjoined constituents (to the extent that they occur) will be generated as e.g. conjoined NPs or VPs, not as reductions of conjoined sentences.

c) Passives without agents will be generated with the surface subject in deep structure subject position,[10] with no deep structure agent to be deleted. (This is a particularly favorable analysis for Chemehuevi since passive sentences can never occur with agents.)

d) Compounds and nominalizations cannot be formed transformationally, but must be assembled in the lexicon.

e) Attributive adjectives will not arise from "reduced relative clauses", but will originate in the NP in which they occur.

Arguments for the lexicalist approach toward nominalization, originating in Chomsky (1970), have been extended to cover entirely productive morphological processes as well (in Jackendoff to appear, Halle (1973) and Shopen (op. cit.)). The result of this extension is that even such things as noun inflection and verb paradigms appear to be better handled in the lexicon. Since irregularities must be marked anyway, including the regularities as well adds no extra cost if one can state them in a lexical redundancy rule.[11] Transformational rules of concord and agreement are eliminated by allowing inflected forms to be inserted freely, constrained only by rules of interpretation and output conditions (one of which will discard as "uninterpretable" any sentence for which interpretive rules fail to account for any reason).

Although I will not deal specifically with the general class of "incomplete sentences" in this work, Shopen's treatment of these has important consequences for the rest of the grammar. In theory my rules should be assumed to be expandable to include an analysis of all elliptical utterances (e.g. A cup of coffee), though I will not write them thusly here.

It has been helpful to me to treat some aspects of the syntax first in a fairly conservative manner, for example in sorting out relativization, participles and nominalization. (The kinds of structure emerging in such a treatment are not totally useless since some of what they capture will actually be expressed and differentiated in semantic representations.) The final syntactic structures I ultimately propose in each case, however, are in keeping with the revised theory adopted here.

0.4 Key to Symbols and Terms

MM Mary Hanks Molino (principal Chemehuevi informant)

\# Phonological rules use # to indicate 'word-boundary', and

\+ to indicate 'morpheme-boundary'. The cover symbol

C represents any consonant, glide, or r, i.e. replaces $\begin{Bmatrix}[+\text{cons}] \\ [-\text{voc}]\end{Bmatrix}$.

V represents only $\begin{bmatrix}+\text{voc} \\ -\text{cons}\end{bmatrix}$ segments.

I am following conventions adopted in Chomsky and Halle (1968) and Harms (1968), unless otherwise noted.

c = the affricate [ts].

j = the palatal glide.

? = the glottal stop.

g In the syntax sections and in the lexicons the fricative γ is written as g.

/ / Slashes enclose underlying segments or morphemes when

it is useful or important to distinguish them as such.

[ ] Square brackets are similary used for phonetic strings.

x When the status is irrelevant, or the level is intermediate, segments will simply be underlined and morphemes and strings will be unmarked.

* Forms or sentences which are unacceptable in Chemehuevi are preceded by an asterisk.

(X)* = a string of any number of Xs (including none).

C? Glottalized consonants, although analyzed as single segments, are written as a sequence of consonant + glottal stop.

Chemehuevi forms:

Within words, morphemes are separated by dashes. In sections dealing with syntax, forms are given in a taxonomic phonemic transcription (i.e. rules of vowel deletion, consonant alternation are assumed to have applied, but backing of k, rounding of ŋ, etc. are ignored.) Stress is predictable and will not be indicated.

(Morphemes or strings cited in isolation which end in a dash normally are followed by suffixes and therefore are not "complete words". Their final vowels are left undeleted.)

Underlined Chemehuevi forms, or portions of forms, are borrowings from English, and are given in English orthography. They are pronounced essentially as in

English, except for indicated modifications, such as the addition of stem-final vowels (e.g. /Anni/ for "Ann".)

English glosses:

Following Chemehuevi strings, morpheme by morpheme translations are given in English with the equivalent of each morpheme being underlined. Within a word these are separated by dashes.

Free translations are given in double quotes. Material inserted for fluency of translation for which there is no Chemehuevi counterpart is indicated in parentheses. Chemehuevi material which is not easily rendered in the translation is omitted, since it is glossed in the morpheme by morpheme translation.

Abbreviations used in glosses:

abs	= absolutive (derivational) suffix on noun stems.
anim	= animate agreement marker.
cont(in)	= continuative aspect marker, /-niʔi/.
du	= dual, [-several] [-singular]. Two only.
dur	= verb suffix indicating non-momentaneous (or "durative") aspect. As verb-stem feature, [-mom] will be used.
fut	= future tense, marked by /-vaa/ or /-mpaa/.
habit ~ ptc	= "habitual aspect" marker, not a true aspect, but a special use of the subject relativization participle ending.
imp ~ mom	= momentaneous aspect marker used to form imperatives of some verbs.

intr = intransitive.

K = third person inanimate (invisible) postfix pronoun, used as copular or other auxiliary element, (section 2.225), or in place of the subject pronoun "you" (singular).

mom = any of several verb suffixes indicating momentaneous aspect. As a feature on a verb stem, [+mom] marks the verb as inherently momentaneous.

neg = negative morpheme; /-wai ~ waʔa/ or /-apa/, depending on syntactic properties of stem. Attaches to predicate (noun or verb).

nml = nominalizer suffix on verbs; /-na/ or /-pɨ/.

not = negative adverb optionally cooccurring in sentence with negative markers given above. The adverb may be omitted, but the suffixes may not.

ob = oblique case marker. Normally /-a ~ -ja/ on nouns, /-ku/ on numbers, postpositions.

pass = passive (agentless) suffix on verbs, /-tɨ/.

perf = perfect, or completed action. Marked by /-kai/, verb suffix, or /-caa/, enclitic (or both).

pl = plural, specifically [-singular]. (i.e. a cover term for dual and several.)

plob = agreement suffix marking (on verb) plural object.

p/p = present/past; a verb tense suffix /-ka/ which can translate either as present or past.

pres = present tense, marked by /-jɨ/ for most verbs.

ptc = participle ending; /-tɨ/ is used for participles arising from subject relativization (see sect. 2.33); /-na/ is used for those arising from object relativization (so-called "passive" participles.)

Q	= interrogative morpheme; /urɨɨ/, enclitic /-raa/, or glottal stop (see section 2.24.)
rem	= remote past tense suffix, /-pɨgai/.
result	= resultative, difficult to distinguish from perfect marker, since it is also /-kai/. Means 'being in the state of having ---ed'; can cooccur with perfect.
sev	= several, [+several] ([-singular]); includes three or more.
sing	= singular, [+singular] ([-several]).
subord	= subordinating morpheme, /-gai ~ -ju/, /-gu/, /-ci/, or /-ka/, attached to verb in subordinate clause.
tran	= transitive; any verb taking one or more objects (without postpositions).
X(ob)	= oblique ending added to X, but deleted by vowel-deletion rule. Stem-final vowel on X surfaces.

Pronouns are not glossed with all the relevant features, unless needed for clarity, e.g. tam would be glossed simply as "we"; for complete translation, see charts in sections on pronouns. Since postfix forms in general are not marked for case in Chemehuevi, they will simply be translated according to the semantics, e.g. "I" vs. "me", etc. Third person pronoun glosses will vary freely between personal pronouns and demonstrative pronouns, since they are equivalent in Chemehuevi. Thus, maŋ will be glossed variously as "he" ("she"), "that one", or "that".

Terms used in text:

affix: includes bound morphemes which are associated with a particular stem class, e.g. occur only with verbs. "Suffix" is used for post-stem affixes, "prefix" for pre-stem affixes.

enclitic: used in somewhat more restricted sense than normal: refers to bound morphemes which, if they show up in a sentence, must be attached to the first word. All enclitics in Chemehuevi are postclitic, i.e. are attached after the stem rather than before.

oblique case: the only non-nominative case in Chemehuevi will be called "oblique". It is used both for possessor and object nouns. Postpositions attached to nouns are attached directly to the bare stem (which could be considered the nominative, except that some absolutives, etc. are deleted before postpositions). For motivation for not calling postpositions "cases", see section 2.23.

postfix: includes bound morphemes often referred to as "enclitic" in other sources; unlike normal suffixes, they may appear on (almost) any word in the sentence, without regard to the type of stem. Most notable examples are the bound forms of pronouns, which attach to nouns, verbs, postpositions, adverbs, conjunctions and modifiers, anywhere in the sentence. They are not restricted to the first word in the sentence, the only difference between them and (my) enclitics.

root: any lexical category stem stripped of all derivational affixes; a single morpheme. Compounds consist of two roots.

stem: that portion of a word to which inflectional affixes are added, i.e. the root plus any derivational affixes.

word: defined phonologically; the domain of the stress rules and the final vowel-deletion rule. When there is any doubt, I will use the latter as the criterion. Word boundaries must be inserted in a string before the phonological rules can apply. I will assume all bound morphemes to be so marked in the lexicon, with a separate feature for enclitics.

The only postfixes seem to be the bound pronouns, so [+bnd, +pro] will be used rather than introducing a third feature. It is the job of the syntactic component to position and order all morphemes correctly. Readjustment rules, at the end of the transformational cycle, insert word boundaries fairly straightforwardly.

(Prefixes will have to be distinguished from suffixes at some point; e.g. since many "free" morphemes are optionally prefixed to verbs, a general feature [pref], "prefix" will be used, with most nouns being marked [*pref] (obligatorily specified as + or -.

In general, conventions regarding features used in Stockwell, Schachter, and Partee 1973 will be followed here.)

Footnotes

[1] Sources on the history of the Chemehuevi include: Kroeber (1907), Miller and Miller (1967), and Laird (to appear).

[2] Traditionally sung on such occasions.

[3] Stirling, M. W., John Peabody Harrington, 1884-1961, obituary in American Anthropologist [65, 1963].

[4] op. cit.

[5] One letter to Harrington (in 1919) from Kroeber: "You had better get ready to duck into a hiding place. I am likely to appear in Washington before a month is over and my first question will surely be about Esselen manuscript. I am confident you will have many explanations to give and not a single good one.

I am not going to urge you to attend the Boston meeting even though I shall make an effort to get a threshing out of the linguistic relationship problem in its wider bearings. I know from experience that the probability of John P. Harrington's actual materialization at a meeting is in inverse ratio to the urgency with which he is desired and the firmness of his promises to attend.

I hope you took in the spirit in which they were meant my remarks about you in the review of your Tewa Ethnography. I wish I could have made my statements stronger. I consider the way you let your brain go idle a crying shame. I cannot think of another man who turns so good a mind into so complete a machine. Sincerely yours, Kroeber".

[6] The Chemehuevis (to appear) and Not the Yawning Graves (to appear), respectively.

[7] See for example Hooper (1973).

[8] As set forth in Chomsky Aspects of the Theory of Syntax (1965).

[9] I am also accepting the discarding of rules of pronominalization (see Jackendoff 1972). All pronouns including the reflexive morphemes will be directly inserted in DS.

[10] I recognize that the deep structure position of the surface subject is itself not a "consequence" of dispensing with deletion rules, and that there are other possible means of handling it.

[11]There are actually two ways of utilizing redundancy rules--either leave out the redundant features in individual items and have the rules "fill them in" before lexical insertion, or leave them in each entry and merely use the redundancy rules to state the generalization and "subtract the cost". I agree in principle with both Jackendoff and Shopen that the latter is to be preferred, though for Chemehuevi the long agglutinated word forms may suggest a compromise.

1 PHONOLOGY

1.1 Phonetics

The following phonetic segments appear in Chemehuevi:

(1) Consonants

p	t	k̟	k	q	?	k^w
	s	γ̥			h	
	c					
β~v		γ				$γ^w$
	r	(l[1])				
m	n	ŋ				$ŋ^w$
m?	n?	ŋ?				
w	j					
w?	j?					

Consonant clusters

mp	nt	ŋk
	nc	ŋkw

Vowels

i	ɨ	u	i:	ɨ:	u:
(æ)	a	o		a:	o:

Vowel clusters

ɨi	ia	
		aɨ
ui	ɨa	
		au
oi	ua	
		e^i ~ a_i ~ $ɨ_i$
ai	oa	

Consonants

Stop consonants in Chemehuevi are unaspirated. The velar, k, is fronted (to k̟) after i and backed (to q) after a and o. There is only one affricate, c, in this dialect (in contrast to Southern Paiute). Pamela Munro reports instances of č in her informant's speech. Neither dialect of Chemehuevi contains š.

The fricative ɣ may show up voiceless when word-final, as in paran?nɨɣ̥ "Paiute", or in jajaɣ̥ "burst into tears!" It seems to be in free variation with [ɣ] in this environment.

The segment l appears in only a handful of loanwords. Most loans substitute r for l; the residue of unaltered loans probably varies from speaker to speaker. Thus, for MM, volita in Chemehuevi means "marble", and papiliv "paper", both from Spanish. On the other hand, aporos "apple" has lost the l. The second source of l in MM's dialect is its usage in baby-talk, where it frequently replaces r; e.g. nɨ-lua-ci-ŋ "give me!" for adult nɨ-rua-ŋ, and kalɨ-ci-ŋu-? "sit!" for karɨ-ŋu-?.

Vowels

Although fronting of a to æ is common in Southern Paiute, it is rare in this dialect of Chemehuevi. The only clear case I've found where a is fairly consistently fronted in rapid speech is in /tɨrawi?i/ "dash off", showing up as [tɨræwi?]. (Here, a is sandwiched between two high vowels.)

The diphthong $e^{i} \sim a_{i} \sim ɨ_{i}$ arises only from an underlying i following a sequence of a plus a back consonant, as in /pahiju/ "three" [pahe^{i}j], /ja?i-jɨ/ "dead" [ja?^{a}ij], and /jaaqi-vɨɨ/ "brought" [jaaq^{ɨ}ivɨ].

1.2 Lexical Representation

The above segments can be reduced to the set of underlying segments given in (2) below; Table I gives the

distinctive feature specification for each. (For features filled in by morpheme structure rules, see Table II.)

(2)

p	t	k	kw	?			
	s			h			
	c				i	ɨ	u
v	r	γ	γw			a	o
m	n	ŋ					
m?	n?	ŋ?					
w	j						
w?	j?						

(For discussion of /v, r, γ, γw/ see section 1.31.)

The following morpheme structure rules specify segmental redundancies in lexical entries in Chemehuevi:

MSR 1

$$\begin{bmatrix} +\text{cons} \\ +\text{voc} \end{bmatrix} \rightarrow \begin{bmatrix} +\text{cnt} \\ -\text{nasal} \\ +\text{cor} \\ -\text{back} \end{bmatrix}$$

(Fills in predictable features for the segment /r/.)

MSR 2

$$[-\text{cons}] \rightarrow \begin{bmatrix} -\text{nasal} \\ -\text{cor} \\ -\text{ant} \end{bmatrix}$$

(Glides and vowels are all nonnasal, nonanterior, and noncoronal.)

MSR 3 $[+\text{cor}] \rightarrow [+\text{ant}]$

(There are no underlying palatals in Chemehuevi.)

MSR 4

$$\begin{bmatrix} +\text{cons} \\ -\text{cor} \\ -\text{ant} \end{bmatrix} \rightarrow \begin{bmatrix} +\text{hi} \\ +\text{back} \end{bmatrix}$$

(Velar consonants (not including glides) are high and back.)

Table I

	p	t	k	kw	v	r	γ	γw	c	s	m	n	ŋ	m?	n?	ŋ?	w	j	w?	j?	?	h	i	ɨ	u	o	a
voc	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+
cons	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-
nasal	-	-	-	-	-		-	-	-	-	+	+	+	+	+	+											
cnt	-	-	-	-	+		+	+	-	+											-	+					
del rel		-							+																		
glot											-	-	-	+	+	+	-	-	+	+							
cor	-	+	-	-	-		-	-	+	+	-	+	-	-	+	-											
ant	+		-	-	+		-	-			+		-	+		-											
hi																	+	+	+	+	-	-	+	+	+	-	-
back																	+	-	+	-			-	+	+	+	+
rnd			-	+			-	+																-	+	+	-

MSR 5 [+ant] → [-hi]

(Anterior consonants are not high.)

MSR 6 [+nasal] → [-cnt]

(Nasal consonants are considered to be stops, i.e. noncontinuants.)

MSR 7 $\begin{bmatrix} \text{-cons} \\ \begin{Bmatrix} \text{+hi} \\ \text{+voc} \end{Bmatrix} \end{bmatrix} \rightarrow$ [+cnt]

(Marks all vowels and the glides /w, j/ as continuants.)

MSR 8 $\begin{bmatrix} \text{-hi} \\ \text{-voc} \end{bmatrix} \rightarrow$ [-back]

(All nonhigh consonants and glides are also nonback.)

MSR 9 [-back] → [-rnd]

(Nonback segments are never round.)

MSR 10 [+nasal] → [-rnd]

(Nasals are never round, i.e. there is no /ŋw/.)

MSR 11 $\begin{bmatrix} \text{-cons} \\ \text{-voc} \\ \text{+back} \end{bmatrix} \rightarrow$ [+rnd]

(The only back glide /w/ is also round.)

MSR 12 $\left\{ \begin{matrix} \text{[+voc]} \\ \begin{bmatrix} \text{+cons} \\ \text{-nasal} \end{bmatrix} \\ \begin{bmatrix} \text{-cons} \\ \text{-hi} \end{bmatrix} \end{matrix} \right\} \rightarrow$ [-glot]

(Everything except the nasals and /w, j/ is nonglottalized; i.e. all vowels, all non-nasal consonants, and the nonhigh glides, /h, ʔ/.)

MSR 13 $\begin{bmatrix} \text{-voc} \\ \text{+cons} \\ \text{-nasal} \end{bmatrix} \rightarrow$ [-son]

MSR 14 $\left\{\begin{matrix}[+voc]\\[-cons]\\[+nasal]\end{matrix}\right\} \rightarrow [+son]$

(Vowels, glides, r and nasals are sonorant, all other segments are not.)

MSR 15 $\begin{bmatrix}-son\\+cnt\end{bmatrix} \rightarrow [+del\ rel]^{ftnt\ 2}$

(V, ɣ, ɣw, and s are [+del rel].)

MSR 16 $\left\{\begin{matrix}[+son]\\\begin{bmatrix}-cnt\\-cor\end{bmatrix}\end{matrix}\right\} \rightarrow [-del\ rel]$

(nasals, glides, vowels, p, k, kw, are [-del rel]. t, c are lexically marked for this feature.)

MSR 17 $\left\{\begin{matrix}\begin{bmatrix}-cnt\\-nasal\end{bmatrix}\\\begin{bmatrix}-voc\\\left\{\begin{matrix}[+cor]\\\begin{bmatrix}-hi\\-cons\end{bmatrix}\end{matrix}\right\}\end{bmatrix}\end{matrix}\right\} \rightarrow [-voiced]$

MSR 18 $\left\{\begin{matrix}[+voc]\\[+nasal]\\\begin{bmatrix}+hi\\+son\end{bmatrix}\\\begin{bmatrix}+cons\\+cnt\\-cor\end{bmatrix}\end{matrix}\right\} \rightarrow [+voiced]$

(Vowels and r, nasals, high sonorants, and noncoronal continuant consonants are voiced. All other segments are voiceless.)

MSR 19 $\left\{\begin{matrix}[-del\ rel]\\[+voiced]\end{matrix}\right\} \rightarrow [-strid]$

MSR 20 $\begin{bmatrix}+del\ rel\\-voiced\end{bmatrix} \rightarrow [+strid]$

(c and s are strident. All other segments are not.)

MSR 21 $\begin{bmatrix}+voc\\-cons\end{bmatrix} \rightarrow [-stress]$

(Vowels are originally unstressed.)

Many of the above segmental MSRs are persistent; i.e. can be used to specify redundant features in the output of phonological rules. These include MSRs 1, 4-9, 11, 12, 14-16, 19 and 20.

Table II, on the following page, gives the full specifications of the underlying segments as filled in by the above rules.

Sequential redundancies are specified by the following morpheme structure rules:

MSR 22 $[+seg] \rightarrow \begin{bmatrix} +voc \\ -cons \end{bmatrix} / \left\{ \begin{array}{l} \_\_\_\_ + \\ \begin{bmatrix} \left\{ \begin{array}{l} [+cons] \\ [-voc] \end{array} \right\} \\ -nasal \end{bmatrix} \_\_\_\_ \end{array} \right\}$

(All morphemes end in vowels. Except for nasals, all consonants (including r and glides) must be followed by a vowel, i.e. clusters of nonnasal consonants are prohibited.)

MSR 23 $[-cons] \rightarrow [-voc] / \begin{bmatrix} +voc \\ -cons \end{bmatrix} \begin{bmatrix} +voc \\ -cons \end{bmatrix} \begin{bmatrix} +voc \\ -cons \end{bmatrix} \_\_\_\_$

(The maximum string of vowels in a morpheme is three; if a nonconsonantal segment follows, it can only be a glide. Otherwise only [+cons] segments or morpheme boundaries may follow.)

MSR 24 $\left\{ \begin{array}{l} [-voc] \\ [+cons] \end{array} \right\} \rightarrow \begin{bmatrix} +cons \\ -voc \\ -cnt \\ -nasal \end{bmatrix} / [+nasal] \_\_\_\_$

(Any nonvowel after a nasal must be p, t, k, kw, or c.)

MSR 25

$[+nasal] \rightarrow \begin{bmatrix} \alpha cor \\ \beta ant \\ \gamma hi \\ \delta back \end{bmatrix} / \_\_\_\_ \begin{bmatrix} +cons \\ \alpha cor \\ \beta ant \\ \gamma hi \\ \delta back \end{bmatrix}$

(Nasals in nasal plus obstruent clusters are always homorganic.) (Persistent rule.)

Table II

	p	t	k	kw	v	r	γ	γw	c	s	m	n	ŋ	m?	n?	ŋ?	w	j	w?	j?	?	h	i	ɨ	u	o	a
voc	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+
cons	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-
nasal	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-
cnt	-	-	-	-	+	+	+	+	-	+	-	-	-	-	-	-	+	+	+	+	-	+	+	+	+	+	+
del rel	-	-	-	-	+	-	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
glot	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	-	-	+	+	-	-	-	-	-	-	-
cor	-	+	-	-	-	+	-	-	+	+	-	+	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
ant	+	+	-	-	+	+	-	-	+	+	+	+	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-
hi	-	-	+	+	-	-	+	+	-	-	-	-	+	-	-	+	+	+	+	+	-	-	+	+	+	-	-
back	-	-	+	+	-	-	+	+	-	-	-	-	+	-	-	+	+	-	+	-	-	-	-	+	+	+	+
rnd	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	-	+	-	+	-	-	-	-	-	+	+	-
son	-	-	-	-	-	+	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
voiced	-	-	-	-	+	+	+	+	-	-	+	+	+	+	+	+	+	+	+	+	-	-	+	+	+	+	+
strid	-	-	-	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

MSR 26 $\begin{bmatrix} +\text{voc} \\ -\text{cons} \\ \begin{Bmatrix} +\text{hi} \\ +\text{rnd} \end{Bmatrix} \\ +\text{back} \end{bmatrix} \rightarrow \begin{bmatrix} \alpha\text{hi} \\ \beta\text{rnd} \\ \gamma\text{back} \end{bmatrix} \; / \; \begin{bmatrix} +\text{voc} \\ -\text{cons} \\ \begin{Bmatrix} +\text{hi} \\ +\text{rnd} \end{Bmatrix} \\ \alpha\text{hi} \\ \beta\text{rnd} \\ \gamma\text{back} \end{bmatrix} \; \_\_\_$

(Sequences of two vowels are restricted as follows:

<u>a</u> or <u>i</u> can follow any vowel.
<u>ɨ</u> <u>u</u> or <u>o</u> can only follow themselves (i.e. forming long vowels) or <u>a</u>. (*<u>ao</u> is prohibited in the next rule.)

This is a persistent rule, e.g. whenever <u>u</u> follows a vowel other than <u>a</u> it assimilates:
/upaa/ <u>in</u> > kani-ipa "in the house"
ma-upa "in that"

/tɨka-vɨɨ-uka/ <u>eat</u>-<u>past</u>-<u>it</u> → tɨka-vɨɨ-ɨk "ate it"

I know of no morphemes beginning with <u>ɨ</u>- or <u>o</u>- as contrasted with <u>?ɨ</u>- or <u>?o</u>-) so can't verify the "persistency" (phonological status) of this rule for these segments.)

MSR 27 $\begin{bmatrix} +\text{voc} \\ -\text{cons} \\ -\text{hi} \end{bmatrix} \rightarrow [-\text{rnd}] \; / \; \begin{bmatrix} -\text{cons} \\ -\text{hi} \\ -\text{rnd} \end{bmatrix} \; \_\_\_$

(The sequence *<u>ao</u> is unpermissable.)

MSR 28 $\begin{bmatrix} -\text{voc} \\ +\text{hi} \end{bmatrix} \rightarrow [-\text{rnd}] \; / \; \_\_\_ \; [+\text{rnd}]$

(Sequences of *<u>wo</u>, *<u>wu</u>, *<u>kwo</u>, *<u>kwu</u> are forbidden.)

MSR 29 $\begin{bmatrix} -\text{voc} \\ -\text{cons} \\ +\text{hi} \end{bmatrix} \rightarrow [+\text{back}] \; / \; \_\_\_ \; [-\text{back}]$

(*<u>ji</u> is an unpermissible sequence.)

MSR 30 $\begin{bmatrix} +\text{cor} \\ -\text{son} \end{bmatrix} \rightarrow [+\text{del rel}] \; / \; \_\_\_ \; [-\text{back}]$

(*<u>ti</u> is an unpermissible sequence.)

1.3 Phonological Rules

1.31 Analysis of Consonants

The clusters kw and ɣw are treated as single phonological segments since w does not cluster with nonvelars. (Also, there are no parallel clusters with j.) The cluster ŋw arises in Chemehuevi only from an underlying ŋ following the vowel u.

One of the most complex aspects of Chemehuevi phonology is the behavior of nonglide consonants in medial position, particularly after morpheme boundaries. These consonants behave almost identically in Southern Paiute, and for that language many analyses have been proposed. Most are potentially applicable to Chemehuevi as well, and deserve some consideration here.[3]

The problem is as follows:

(a) The consonants v, r, ɣ, ɣw, and the nasal clusters never occur word-initially (in either language; Southern Paiute has the same underlying segments as Chemehuevi except for /h/.)

(b) Word-internally these occur in two situations:

(i) morpheme-initially, where for most morphemes the voiced continuants given above alternate with the stop series and the nasal cluster series. In each case the preceding morpheme determines the following consonant series.

(ii) morpheme-internally, where except for a few situations, they don't alternate at all.

In Southern Paiute the word-internal stop series shows up in some cases as geminate stops, the distribution with respect to single stops being predictable on the basis of stress. (Sapir called this series the "geminated" series, the nasal clusters he called "nasalized" and the voiced continuants "spirantized.")

The alternations in Chemehuevi are tabulated in (3) below, the differences in Southern Paiute are as noted:

(3)

stop series (a)	voiced continuant series	nasal cluster series
p	v	mp
t	r	nt
k	ɣ	ŋk
kw	ɣw	ŋkw
c	c/nc	nc
s	s	s
m	w (b)	m (c)
n	n	n
ŋ	ŋ	ŋ

(a) When non-word-initial, these consonants ("geminate series") occur as geminates before an unstressed vowel segment in So. Paiute.

(b) ŋw in So. Paiute.

(c) Nasals in this series are long in So. Paiute.

Examples of these morpheme-initial alternations are given in (4) below; morpheme-internal examples, where they don't alternate, follow in (5):

(4) In a-g the first morpheme (/na/ or the reduplicating morpheme) triggers a following voiced continuant:

a.	/na	+	puni-kai/	--→	navunika
	reflexive		see		see -self
b.	/na	+	tɨka/	--→	narɨka-
			eat		eat -self
c.	/na	+	koa/	--→	naɣoa-
			cut		cut -self
d.	/REDUP	+	kwiiɣantɨ/	--→	kwiɣwiiɣant
	pl		left handed one		left handed ones
e.	/na	+	cikwɨ/	--→	nancikwɨ-[4]
			cut		cut -self
f.	/na	+	mavoa/	--→	nawavoa- ~namavoa-
			cover		cover -self
g.	/na	+	wɨn?oɣi/	--→	nawɨn?oɣi-
			shave		shave -self

The same verb stems show up with stops after morphemes like /pɨŋka/:

h.	/pɨŋka	+	puni-kai/	--→	pɨŋkapunika
	keep on		see, look		keep on looking
i.	/pɨŋka	+	tɨka/	--→	pɨŋkatɨka-
			eat		keep on eating

The first morphemes below trigger nasal clusters in the stems following:

j.	/nɨ	+	po?o-tu?i/	--→	nɨmpo?otu?i-
	person		$\text{teach}_{\text{tran}}$		$\text{teach}_{\text{intr}}$

k.	/juhu-ɣai	+	tɨ/	-->	juhuɣant
	fat-be		ptc		being fat
l.	/nɨ	+	kuu/	-->	nɨŋkuu-
	person		$bury_{tran}$		$bury_{intr}$
m.	/nɨ	+	kwɨhɨ/	>	nɨŋkwɨɨtu?ikat
			catch		policeman (person-catcher)

(5) Nonalternating internal occurrences of consonants in (3) above: (second syllable consonant)

a.	/opi/	mesquite bean
b.	/otavi/	sand
c.	/tɨka/	eat
d.	/cikwɨ/	cut
e.	/kaaci/	rat
f.	/asivɨ/	skin
g.	/kamɨ/	jack-rabbit
h.	/tɨvaci/	wolf
i.	/tɨrɨnavɨ/	root
j.	/nɨɣarɨ/	wind
k.	/uɣwi/	smell
l.	/tɨmpi/	rock
m.	/tantɨici/	northerner
n.	/puŋku/	pet
o.	/oncia/	fox
p.	/naŋkwaru?u/	metal

In the analyses for Southern Paiute there are two schools of thought. The first is to treat whatever controls

the consonant alternation as a feature on the preceding morpheme. For example, /na/ in (4a-g) above would be lexically marked as [+spirantizing] or the equivalent. Sapir implied such an analysis, though he represented what he called the "inherent spirantizing, geminating or nasalizing power" of each morpheme as a superscript on the form. Recently, Nichols (1973) has proposed an analysis (for Numic languages in general) which also utilizes a type of superscript, though he relabels (and increases the number of) the three consonant series. Nichols calls such superscripts "final features". They differ from normal segments in that they are unspecified phonologically (except being marked [+segment]), and that they reflect somehow a "lexical marking on the entire form" (p. 30) in much the same way Sapir's do. And yet they are not simply features on morphemes[5] since the same type of mechanism is intended to be used in triggering internal occurrences of the various consonant series as well as initial occurrences in the following morpheme. Sapir somehow intended his "features" to be distributed likewise, since he claims all [v]s come from organic /p/s, etc. not just morpheme-initial ones. Yet he never actually uses his superscripts morpheme-internally, and skirts the issue of how to handle these situations.

The second school of thought treats these alternations as phonological interactions with normal morpheme-final segments. Chomsky and Halle (1968) present the clearest example

of this approach. They propose that (1) nasalizing roots actually end in a nasal consonant (unspecified for point of articulation), (2) geminating roots end in a nonnasal obstruent (unspecified for point of articulation), and (3) spirantizing roots are "spirantizing" by virtue of (a) ending in vowels and (b) a general rule making voiced continuants out of single intervocalic stops. Chomsky and Halle add a rule which causes the first of two consonants in a cluster to assimilate to the second, and a rule which deletes these morpheme-final consonants at the end of a word or before a vowel (since they surface only before consonants.)[6]

With minor modifications in their rules,[7] Chomsky and Halle (as most segmental treatments) allow a single unified method of marking both the morpheme-internal and the morpheme-initial occurrences of these three series of consonants. In (6) below the underlying forms of some of the morphemes exemplified in (4) and (5) above are postulated as they would be in the three treatments:

(6)

Sapir	Nichols	Chomsky and Halle[8]		
na^{s}-	na	na	[na-]	self
pɨŋka^{g}-	pɨ"ka'	pɨNkaT	[pɨŋka-]	keep on
nɨ^{n}-	nɨ"	nɨN	[nɨ-]	person
?	o'pi	oTpi	[opi-]	mesquite bean
?	tɨpaci	tɨpaci	[tɨvaci-]	wolf
?	tɨ"pi	tɨNpi	[tɨmpi-]	rock

The mechanism by which Nichols allows internal "final features" is not clear. If one thinks of them actually as "features", then one would presumably assign them to units intermediate between phonological segments and morphemes, perhaps to syllables. The notion "syllable feature" has widespread implications for the theory, one of which is the resulting increase in its power. (Nichols cites sporadic instances of feature metathesis and shifting within a stem as suggesting that for some words, even internal "final features" are assigned to the whole morpheme--their placement being unspecified. However for most morphemes, somehow or other the internal placement <u>will</u> have to be specified.) If one instead accepts final features as segments, the theoretical power is still expanded by allowing segments to serve as (or be reflexes of) "labeling features" on the morpheme of which they are a part. Furthermore as segments the kinds of conditioning they have on following morpheme-initial segments are peculiar--see discussion of Chomsky and Halle's analysis below.[9]

Allowing either of these extremely powerful additions to the theory greatly increases the set of possible grammars, when instead we should be seeking to limit the set. As an informal descriptive notation however, final features do seem to offer an appealing way to view comparative Numic phonology.

In terms of utilizing existing mechanisms, then, the normal segmental analysis (e.g. of Chomsky and Halle) seems

the most straightforward way of handling the data thus far. However there is a large chunk of data Chomsky and Halle do not consider, which when taken into account makes the pure segmental analysis less "straightforward" and less phonologically motivated[10] than it appears at first glance.

There are several situations in which the preceding morpheme does <u>not</u> determine the following morpheme-initial consonant. For one, there exists a large class of suffixes (in both languages) which occur in only one form. These may be with initial stops (e.g. the plural subject suffix on verbs, -ka in Chemehuevi, -kka in Southern Paiute), an initial voiced continuant (e.g. the durative suffix -γa) or an initial nasal cluster (e.g. the indirective verbal suffix -ŋkɨ).

There are several ways to handle these under each analysis. Nichols (and Sapir by implication) includes preceding "final features" on such forms in the lexicon (i.e. -'ka for the plural, -"kɨ for the indirective, and -ka for the durative), and writes a rule deleting the first in a series of two final features. For Chomsky and Halle the solutions would be more complex, however. If they were to include preceding segments in the lexical representations of these forms (i.e. -Tka plural, -Nkɨ indirective, but -ka durative), they would need a rule to delete any morpheme-final consonants in the preceding stems in all three cases. For the plural and indirective this could be done simply by a rule

deleting the first consonant in a series of three: C -> Ø / ___ CC. However the durative suffix is not distinguishable from all the suffixes which do alternate; the only way to get rid of preceding obstruents and nasals would be by a rule feature of some sort on all suffixes like [γa] which don't alternate (triggering a rule of preceding consonant-deletion).

This approach has the disadvantage that the three types of nonalternating morphemes are not treated in parallel fashion.[11] Furthermore, these underlying forms have consequences for their morpheme structure rules in that they no longer may prohibit morpheme- (and therefore word-) initial clusters.

The alternative for Chomsky and Halle would be to set up their normal underlying forms, /ka/ durative, /ka/ plural, and /kɨ/ indirective, and markeach one with rule features. Such features must be able to handle all three preceding stem situations, namely preceding vowels, nasals, or obstruents. Consequently, somewhere before their assimilation and "spirantizing" rules the following governed rules must apply:

(i) $C \rightarrow \emptyset \;/\; \_\_\_\; ka_{dur}$

(ii) $\begin{Bmatrix} N \\ \emptyset \end{Bmatrix} \rightarrow T \;/\; V \;\_\_\_\; ka_{pl}$

(iii) $\begin{Bmatrix} T \\ \emptyset \end{Bmatrix} \rightarrow N \;/\; V \;\_\_\_\; kɨ_{ind}$

In addition to these invariable suffixes, there are many instances of consonant alternation triggered by morphological factors. In Chemehuevi for example the form of the past tense suffix -vɨɨ ~ -mpɨɨ is determined (for some verbs) by whether the verb is to be interpreted as inchoative or not. (In other cases the difference in form does not seem to be semantically determined.) A few postpositions in Southern Paiute vary their initial consonant according to whether the noun to which they are attached is animate or not, regardless of the "phonological shape" of the stem.

Reduplication processes in both languages further complicate the picture. Consider the forms given in (7) from Chemehuevi:

(7) a.	kwɨhɨ-	catch	
	kwɨɣwɨɨ-	catch-iterative	(for loss of h, see P 14 in section 1.33)
b.	kwipa-	beat	
	kwikwipa-	beat-iterative	
c.	karɨ-	sit	
	kakarɨ-	sit-momentaneous	

Whether the reduplicated syllable "spirantizes" or not is unpredictable in the two languages. (Nasalization seems to be triggered only by the presence of a nasal in the stem, e.g. /tɨmpi/ rock, [tɨntɨmp] rock-pl; /kani/ house, [kaŋkan] house-pl.) The consonant series is not entirely determined by the function of the reduplicated syllable; "iterative"

reduplication "spirantizes" the stem-initial consonant in (a) above, but not in (b). Nor does it reflect the second syllable consonant series; the medial consonant of the stem in (c) is a voiced continuant, but the first syllable does not "spirantize" itself upon reduplication.

All of the above problems require ad hoc rules of segment insertion and deletion, when in fact the overall picture begins to appear less and less phonological in nature.

I conclude that for Chemehuevi in particular, a segmental approach to consonant alternation is not warranted, especially since geminate consonants do not occur in any surface forms. A feature analysis better captures the morphological nature of these alternations. Encoding them in terms of features on morphemes, however, forces us to give up treating morpheme-initial and morpheme-internal occurrences of these series in the same way. The latter must simply be specified in the lexical representations as they appear on the surface. Although this entails adding four underlying segments to the analysis, it requires no new features to be added. Thus the cost is minimal.

The forms given in (6) above would, in this analysis, have lexical representations something like the following:

(8) na [+s] — self

pɨŋka [+g] — keep on[12]

nɨ [+n] — person

opi	<u>mesquite bean</u>
tɨvaci	<u>wolf</u>
tɨmpi	<u>rock</u>

The feature symbols used are keyed to Sapir for mnemonic purposes, even though his labels are not entirely appropriate.

Sapir (1933) argues for the "psychological reality" of /-pa/ as the underlying form of a suffix which shows up as [-βa~-mpa~-ppa]. Given that such an alternation exists, it is difficult to dispute their unification. MM has observed that "some <u>r</u>'s are really <u>t</u>'s," yet note that only <u>some</u> are. Morpheme-internally, when no alternation exists, such a "psychological form" is questionable in the current state of the language.

The rules for consonant alternations in this analysis are assumed to be:

(9) i $\begin{bmatrix} -\text{son} \\ -\text{strid} \end{bmatrix} \rightarrow \begin{bmatrix} -\text{cnt} \\ -\text{voiced} \end{bmatrix} / [+g]\ \_\_\_$

ii $\begin{bmatrix} -\text{son} \\ -\text{strid} \\ \alpha\text{cor} \end{bmatrix} \rightarrow \begin{bmatrix} +\text{cnt} \\ +\text{voiced} \\ \alpha\text{voc} \\ \alpha\text{son} \end{bmatrix} / [+s]\ \_\_\_$

iii $\begin{bmatrix} +\text{nasal} \\ -\text{cor} \\ +\text{ant} \end{bmatrix} \rightarrow \begin{bmatrix} -\text{cons} \\ -\text{nasal} \\ -\text{ant} \\ +\text{hi} \\ +\text{back} \end{bmatrix} / [+s]\ \_\_\_$

(m → w / [+s] ___)

iv $\emptyset \rightarrow N / [+n]\ \_\_\_ \begin{bmatrix} -\text{son} \\ -\text{cnt} \end{bmatrix}$

As in the segmental approach, there are basically two ways to handle nonalternating morphemes. The first is to

put their surface initial consonants in their underlying representations, and mark them in such a way that all the above rules in (9) are suspended. As with the segmental version of this method, morpheme structure rules may no longer be used to explain the nonappearance of "spirants" or nasal clusters in word-initial position. It has been pointed out[13] that one might take advantage of this to describe the reduplication idiosyncracies. If any morpheme may begin with a cluster or spirant, whether or not it is marked "alternating" and whether or not it typically begins a word (e.g. stems), and if one assumes some sort of phonological rule which neutralizes spirants and clusters to stops when word-initial, one could handle the reduplication of the forms in (7) above by lexically representing catch as /γwɨhɨ/, and beat as /kwipa/. No features need be added to the reduplicated syllable--it simply "protects" the underlying stem-initial consonant. The rules in (9) above must then be rewritten as neutralization rules, i.e. must change stops, spirants, and nasal clusters to stops in (i), spirants in (ii) and nasal clusters in (iv).

There are two difficulties in implementing this method: (1) rewriting the rules is not simple--since a segment must be deleted in the case of nasal clusters in (i) and (ii), (e.g. mp -→ p alongside of v -→ p), these subrules can't be collapsed with the existing ones (which could handle both stops and spirants). Also (iv) would have to be rewritten as something like:

$$\begin{bmatrix}-\text{son}\\-\text{strid}\end{bmatrix} \rightarrow N\begin{bmatrix}-\text{cnt}\\-\text{voiced}\\-\text{voc}\end{bmatrix} \;/\; [+n]\;\_\_\_$$

(i.e. $\begin{Bmatrix}p\\v\end{Bmatrix} \rightarrow$ mp, $\begin{Bmatrix}t\\r\end{Bmatrix} \rightarrow$ nt, etc.). (2) Even when rewritten, the fact that m "spirantizes" to w poses a problem since there is also a normal underlying glide w which can occur word-initially, which doesn't partake in any of these alternations. Thus, one doesn't want to shift all morpheme-initial w's to m's after [+g,n] morphemes or word-boundaries, only those which actually alternate with m.

The second way to treat nonalternating morphemes, the way I will adopt, is to give them underlying forms as if they alternated, e.g. /ka/ durative, /ka/ plural, and /kɨ/ indirective, and mark them each as obligatorily undergoing the appropriate rule in (9 i, ii or iv) above (anything which is nonalternating initial w will be assumed to be from w, not m, since the only evidence to the contrary would be historical). Following Harms (1968), I will adopt the notation and convention that [+SDRi] means "meets the structural description of rule (i)" and therefore undergoes it, whether a [+g] actually precedes or not. This feature then will be in the lexical representation of /ka/ plural, and similar features will be associated with the other invariant morphemes. (Each will be redundantly specified with minus rule features for the other rules.)

Handling each of the other morphological problems mentioned will be done by adjusting these morphological

features, rather than the straight insertion or deletion of phonological segments.

Reduplication must unfortunately be handled by marking each stem for which type of reduplicating morpheme it takes (just as nouns must be marked for which plural suffix they take). Thus far these forms would be

$$\begin{bmatrix} \text{CV-} \\ +\text{redup} \\ +\text{g} \end{bmatrix} \quad \begin{bmatrix} \text{CV-} \\ +\text{redup} \\ +\text{s} \end{bmatrix} \quad \text{and} \quad \begin{bmatrix} \text{CV-} \\ +\text{redup} \\ +\text{n} \end{bmatrix}$$ [14]

with the following phonological rule:

$$(10) \quad C\ V \rightarrow C_1\ V_1\ /\ \left[\underline{\quad}_{+\text{redup}}\right]\ C_1\ V_1$$

(For more detailed discussion of reduplication, see rule P3, in section 1.33.)

1.32 Analysis of Vowels

Vowel length in Chemehuevi must be assumed to be distinctive in order to predict stress. The converse analysis would not be as simple; given the positions of primary and secondary stresses in a word, one could predict the lengths of the vowels, but the rule would be much more complex. In addition, diphthongs must be taken to be underlying, and since they always count as "long" vowels for the purposes of stress, redundancy rules would have to be included in the grammar, which would be unnecessary in a grammar predicting stress from vowel length.

Long vowels are analyzed as clusters (vowel sequences), rather than as single vowels with the feature [+long]. This

makes minor rules of lengthening and shortening a bit less simple, but the stress-assignment and vowel-deletion rules are then considerably easier to write.

1.33 Rules

None of the phonological rules for Chemehuevi require the assumption of a cycle. For most rules, extrinsic ordering is unnecessary (see discussion section 0.3). They are written with the understanding that to obtain the correct output they must be permitted to apply (and reapply) whenever they can. The few rules which pose problems for this approach are discussed in section 1.34.

The following phonological rules are used to derive phonetic forms in Chemehuevi. Explanation follows each rule:

P 1 [+voc] -> Ø / ___ #

(All final vowel segments are deleted, one per word.[15] (Note that since phonetically long vowels are analyzed as clusters, they are merely shortened.) E.g. /moa/ -> mo father, /pacɨ/ -> pac daughter, and /nukwi-vaa/ -> nukwiva run-fut. Motivation for assuming all morphemes end in vowels at the underlying level is as follows:

(a) the vowels show up (fully voiced) whenever a suffix is attached or when the morpheme is itself a prefix, or first member of a compound. The nature of the vowel depends on the stem, not the

suffix, e.g. "my father", [moa-n] vs. "my daughter", [paci-n].

(b) Unless we assume an underlying final vowel segment, final syllable structure is unexplainably different from internal syllables; no long vowels appear in final, open syllables, though they're obviously abundant in internal, open syllables. Although final syllables may end in a consonant, internal syllables may not (i.e. are always open). If one counts internal syllables which are followed by prenasalized consonants as "closed", one still has to explain why any consonant can end (close) a final syllable, though only nasals can end an internal one.

(c) Historically, final vowels were not completely dropped, but devoiced instead. This is the case now in Southern Paiute, and was true in Chemehuevi fifty years ago, in dialects which differ in little else from present dialects.) (For ordering problems involving this rule, see discussion section 1.34.)

P2 $\emptyset \rightarrow \begin{bmatrix} V \\ \alpha F \end{bmatrix} / \# C \_\_ \begin{bmatrix} V \\ \alpha F \end{bmatrix} (C) \#$ ftnt 16

(This rule lengthens (geminates) short monosyllables, including those affected (or created) by vowel deletion (rule 1). E.g. "father" is actually phonetically [moo] when unsuffixed, "daughter" is [paac].)

P 3 $CV \langle V \rangle \rightarrow C_1 V_1 \langle V_1 \rangle / \left[\overline{}_{+redup}\right] C_1 V_1$ ftnt 17

(The reduplication morphemes copy all features of the first consonant and vowel of the stem. All stems are here analyzed as consonant-initial, though not all morphemes are, e.g. /-a/ <u>oblique case</u>. Forms like [ʔaipac] <u>boy</u> could have been analyzed as /aipaci/ with the word-initial glottal stop predictably inserted by a phonological rule. However, since I am treating reduplication as an underlying prefixed morpheme, there would be no elegant way of inserting the second <u>ʔ</u> in, e.g., [ʔaʔaipac] <u>boy-pl</u>. Indeed the problem is the same for a vowel-initial stem prefixed by <u>any</u> morpheme. If one were to posit such a rule, one would have to prevent it from inserting <u>ʔ</u> before the oblique case marker, e.g. in /ʔaipaci + a/ → [ʔaipaci] *[ʔaipaciʔ].)

P 4 $\underset{[-stress]}{V} \rightarrow [1\ stress] / \#\ C_o\ V\ C_o$ ___

(Primary stress is assigned to the second vowel segment in a word, e.g. puŋkú-n <u>dog-my</u> "my dog".)

P 5 $\underset{[-stress]}{V} \rightarrow [2\ stress] / \left\{\begin{matrix}[1\ stress]\\ [2\ stress]\end{matrix}\right\} C_o \underset{[-stress]}{V} C_o$ ___ ftnt 18

(Secondary stress is assigned to all even-numbered vowel segments in each word, starting with the fourth segment. Stress rules for Chemehuevi are somewhat simpler than for Southern Paiute.[19] This

simplification is a result of the fact that Chemehuevi deletes final vowels and lengthens monosyllabics; Southern Paiute's not doing so results in complications in the rule of stress assignment. (C_o stands for a string of any number of consonants or none.) E.g.

/na-ravasɨ-tu?i-vɨɨ/
<u>reflex</u>-<u>dry</u>-<u>cause</u> - <u>past</u> "dried-self"

$\rightarrow$ na-ravas$\overset{1}{\text{ɨ}}$-tu?$\overset{2}{\text{i}}$-v$\overset{2}{\text{ɨ}}$)

P 6 $V \rightarrow [n \text{ stress}] \; / \; \underline{\quad} \; \underset{[n \text{ stress}]}{V}$ (n = 1 or 2)

(Any sequence of vowels in which the <u>second</u> vowel is stressed, becomes stressed throughout, i.e. the stress spreads backwards. This does not seem to be true in the opposite direction. E.g. kɨ́áw, "yesterday", from /kɨawi/, is stressed equally on the two vowels. Compare with urúa-γa, "walking", where the second, but not the third vowel segment is stressed.)

P 7 $\begin{bmatrix} -\text{son} \\ -\text{strid} \end{bmatrix} \rightarrow \begin{bmatrix} -\text{cnt} \\ -\text{voiced} \end{bmatrix} \; / \; [+g] \; \underline{\quad}$

(After "geminating" morphemes, the nonstrident obstruents are <u>p</u> <u>t</u> <u>k</u> and <u>kw</u>--see discussion, section 1.31.)

P 8 $\begin{bmatrix} -\text{son} \\ -\text{strid} \\ \alpha\text{cor} \end{bmatrix} \rightarrow \begin{bmatrix} +\text{cnt} \\ +\text{voiced} \\ \alpha\text{voc} \\ \alpha\text{son} \end{bmatrix} \; / \; [+s] \; \underline{\quad}$

(After "spirantizing" morphemes, the nonstrident obstruents become voiced continuants, and in the case of /t/, vocalic and sonorant (i.e. r).)

P 9 $\begin{bmatrix} +\text{nasal} \\ -\text{cor} \\ +\text{ant} \end{bmatrix} \rightarrow \begin{bmatrix} -\text{nasal} \\ -\text{cons} \\ -\text{ant} \\ +\text{hi} \\ +\text{back} \end{bmatrix} \; / \; [+\text{s}] \; \_\_\_$

(m -> w after "spirantizing" morphemes.)[20]

P 10 $\emptyset \rightarrow \text{N} \; / \; \begin{matrix} \text{N V} \\ [+\text{s}] \end{matrix} \; \_\_\_ \; \begin{bmatrix} +\text{strid} \\ -\text{cnt} \end{bmatrix}$

(After "spirantizing" morphemes which end in a nasal plus vowel, c becomes nc. E.g. section 1.31 (4e).)

P 11 $\emptyset \rightarrow \text{N} \; / \; [+\text{n}] \; \_\_\_ \; \begin{bmatrix} -\text{son} \\ -\text{cnt} \end{bmatrix}$

(p, t, k, kw, c become mp, nt, ŋk, ŋkw, nc respectively, after "nasalizing" morphemes.)

P 12 $\text{V} \rightarrow [-\text{nasal}] \; / \; \_\_\_ \; \begin{bmatrix} -\text{nasal} \\ -\text{cons} \end{bmatrix}$

(Vowels which might have been nasalized by rule P 18 are denasalized in cases where m -> w by rule P 9. $\begin{bmatrix} -\text{nasal} \\ -\text{cons} \end{bmatrix}$ includes both w and preceding vowels, to denasalize the whole preceding string.

With extrinsically ordered rules, this rule would be unnecessary.)

P 13 $\begin{Bmatrix} \text{k} \\ \text{q} \end{Bmatrix} \rightarrow \text{k}^{\wedge} \; / \; [-\text{back}] \; (\text{N}) \; \_\_\_$

(k or q, preceded by ŋ or not, is fronted to k^ after i. E.g. /punika/ see [punik^].)

P 14 h → Ø / V [+stress] ___

(h is usually deleted after stressed syllables, as the following examples illustrate:

/puhagai/ have power	> puhá̀ga-nt	"doctor"
	> pu-vúaga-ntɨm	"doctors"
	> na-vúaga-nump	"medicine"
/kwɨhɨ/ catch	> nɨ-ŋkwɨ́ɨ-tui-kat	"policeman"

/waha/ + /hokontɨ/ → wahá-okont "very big")
very big

(For ordering of this rule, see section 1.34.)

P 15 ai → aa / ___ [active ptc.]

(The diphthong ai becomes simply long a in several morphological environments in Chemehuevi, most notably before the "active" participle ending /-tɨ/ (~ -ri ~ -ntɨ ~ -cɨ). This affects, for example, perfective -kai-, and remote past -pɨgai-, which with the participle ending become -kaa-ntɨ and -pɨgaa-ntɨ respectively. The verb -gai- ("have, be", suffixed to noun stems) becomes -gaa-ntɨ with the participle ending, e.g. juhu-gai-, "fat" juhu-gaa-nt, "is fat".)

P 16 {k, k̂} → q / [-high] (N) ___

(k or k̂, whether preceded by ŋ or not, are backed to q after the non-high vowels a and o,

regardless of what follows. Example: /tɨka-ŋu-aka/, eat-imp-that > tɨkaŋuaq.)

P 17 $\begin{bmatrix} \text{-voc} \\ \text{+back} \end{bmatrix} \overset{\text{opt}}{\rightarrow} [\text{+round}] \ / \ \text{u (N)} \ \_\_\_$

(This changes k, ŋ, ŋk, and ɣ to k^w, $ŋ^w$, $ŋk^w$ and $ɣ^w$ respectively, after u. This rule is optional--the same form uttered twice in succession will alternate between e.g. k and k^w. Example: /uŋa-ja/, he-ob → uŋaj ~ $uŋ^waj$.)

(For ordering problems see discussion, section 1.34.)

P 18 $\begin{bmatrix} \text{+voc} \\ \text{-cons} \end{bmatrix} \rightarrow [\text{+nasal}] \ / \ \_\_\_ \ [\text{+nasal}]$

(Vowels are nasalized before nasal consonants. E.g. hiimp → hĩĩmp what.)

P 19 $\begin{bmatrix} \text{-voc} \\ \text{+nasal} \end{bmatrix} \overset{\text{opt}}{\rightarrow} \emptyset \ / \ [\text{+nasal}] \ \_\_\_ \ C$

(This optionally deletes nasals in clusters, after vowel-nasalization has had an opportunity to apply. Whether the rule applies, and the degree to which it applies, depends on several things, including the nature of the vowel (i seems to trigger it more than a, for example), the position relative to stress (nasals are deleted less after stressed vowels than unstressed ones), and whether the cluster is word-final or followed by a vowel (nasals seem to be

retained more often when the cluster is word-final.) Example: hĩĩmp $\overset{opt}{\rightarrow}$ hĩĩp <u>what</u>.)

P 20 a $\overset{opt}{\rightarrow}$ aw / ___ (N) kw #

(See next rule.)

P 21 kw $\overset{opt}{\rightarrow}$ k / aw (N) ___ #

(Final clusters of <u>ŋk^{w}</u> or <u>k^{w}</u> optionally spread or shift their glide back to the preceding segment, if that segment is an <u>a</u>. Example: /kani-ipatɨ-manaŋk^{w}a/ <u>house</u>-<u>inside</u>-<u>from</u>, → kaniipatɨmanaŋkw ~ kaniipatɨmana^{w}ŋkw ~ kaniipatɨmana^{w}ŋk.)

P 22 γ $\overset{opt}{\rightarrow}$ [-voice] / ___ #

(This rule optionally devoices word-final γ. See section 1.1 for examples.)

P 23 a $\overset{opt}{\rightarrow}$ [-back] / ... $\begin{bmatrix} +\text{voc} \\ -\text{back} \end{bmatrix}$ ...

(This rule is to account for a → æ in words like [tɨræwi?] < /tɨrawi?i/ <u>dash off</u>. (There are not enough examples of this to further specify the environment.))

P 24 i $\overset{opt}{\rightarrow}$ ɨi / q ___

(After the backed velar, <u>i</u> is partially assimilated to <u>ɨi</u>, i.e. given a back onglide. Example: /jaaki/ $\overset{(P\ 16)}{\rightarrow}$ jaaqi- $\overset{(P\ 24)}{\rightarrow}$ jaaqɨi- <u>bring</u>.)

P 25 i $\overset{opt}{\rightarrow}$ $\begin{Bmatrix} \varepsilon^{i} \\ e^{i} \\ a^{ɨ} \end{Bmatrix}$ / a $\begin{bmatrix} -\text{voc} \\ -\text{cons} \\ -\text{hi} \end{bmatrix}$ ___

(i is partially lowered, and sometimes backed, after a plus one of the glides h and ?. Examples:

/pahiju/ → pahe^{i}j

three

/ja?i-jɨ/ → ja?a^{i}j ~ ja?ɛ^{i}j.)

dead-pres

P 26 ? $\xrightarrow{opt}$ ∅ / V ___ V

(In rapid speech ? is frequently dropped intervocalically; e.g. /tɨka-tu?i-vii/ "caused to eat" → [tɨka-tui-vɨ].) (For discussion of ordering this rule, see section 1.34 below.)

eat-cause-past

P 27 $[\overset{V}{\alpha F}]$ $\xrightarrow{opt}$ ∅ / $\begin{bmatrix} V \\ \alpha F \\ 2 \text{ stress} \end{bmatrix}$ ___

(When a long vowel does not contain primary stress, it is optionally shortened. (If the first vowel in the sequence wasn't assigned secondary stress by P 5, it was by P 6.) E.g. tɨka-vaa-nt → [tɨka-va-nt].)

eat-fut-ptc

1.34 Discussion

A few sets of rules pose problems if extrinsic rule ordering is dispensed with entirely. P 1 (final vowel deletion) must somehow be prevented from applying to its own output or to the output of P 2. With extrinsically ordered rules we can appeal to the "noniterative rule convention" to prevent P 1 from reapplying, however such a convention is

inconsistent with allowing the rules to apply "whenever they can." One alternative would be to mark forms in some ad hoc way, after P 1 has applied once. A second alternative would involve positing all underlying forms without their "final vowels", i.e. more or less as they appear phonetically in isolation. Instead of a rule deleting vowels, one would have a rule adding vowels when the morpheme is nonfinal, the nature of the vowel being determined by a morphological feature on the form. This approach is one I expect would be taken using a theoretical framework of Natural Generative Phonology.[21]

The second ordering problem concerns the "persistent" MSR 26, which as a phonological rule assimilates certain vowels in vowel clusters. This rule interacts with rules P 14, P 17, and P 26, all of which should follow MSR 26. Nonpermissible vowel sequences which arise due to deletion of h or ? seem to be permissible, for example ao in the last example under rule P 14 above. The rounding of velars by P 17 applies only after a phonetic u; if u should assimilate to a preceding vowel, nonround velars are not rounded. (An original /kw/, however, remains round. This fact prohibits adding a rule of unrounding.)

Without recourse to ordering, there are two options. One could convince oneself that phonetically k^w from /k/ and k^w from /kw/ were distinct (perhaps in degree of rounding), and that underlying vowel sequences were phonetically

more diphthongized, for example, than sequences arising from deletion of ʔ or h. However, I'm not sure the facts support this. Alternatively one could again adopt a Natural Generative approach. In Natural Generative Phonology, all phonological rules must be exceptionless. Therefore, since there are phonetic occurrences of unassimilated vowel sequences, the vowel assimilation rule (MSR 26) could not be phonological, but instead must be a morphophonemic rule.

Aside from problems with rule ordering, the current analysis has one further drawback worth noting. A handful of segments seem to be prohibited from occurring word-initially, though they do show up morpheme-initially. These are the velar nasal ŋ and the glottalized series wʔ, jʔ, mʔ, etc. Morpheme structure rules do not include word-boundaries, and syllable structure constraints, if one chose to state them separately, could not exclude syllable-initial $ŋ, etc., since there are countless such examples.

To the extent that these are valid generalizations, and I believe they are, the theory must somehow be amended to account for them.

Footnotes

[1]Non-native.

[2]I'm attempting to follow Chomsky and Halle (1968) regarding the feature "delayed release", with some difficulty since their description is rather vague.

[3]For a more complete survey of these analyses, see Nichols (1973). Others not mentioned there include Lovins (1970), Rogers (1967).

[4]c → nc when "spirantized", only if the preceding syllable contains a nasal. (See rule P 10, section 1.33.)

[5]Nichols does not intend "final features" be associated with, say, the preceding vowel.

[6]No consonant ever occurs word-finally in Southern Paiute. No syllable or morpheme ends in a consonant other than a geminate segment or a homorganic nasal.

[7]Namely omitting a few morpheme boundaries. There are a few minor omissions and mistakes in their rules as written, but most are easily remedied.

[8]Upper case letters represent segments unspecified for point of articulation.

[9]Nichols (p.c.) admits his "typologically anomalous" segments involve introducing a new theoretical device. We disagree only on whether this is desirable.

[10]Even thus far, the data in Chemehuevi offers less phonological support than the data in Southern Paiute for Chomsky and Halle's approach; for example, there are no geminate consonants, making underlying obstruent clusters rather ad hoc.

[11]It has been suggested (Fromkin p.c.; Schachter p.c.) that morphemes like the durative might begin with unspecified vowels, which are later deleted (after the rule which deletes any preceding morpheme-final unspecified consonant prevocalically).

[12]These homorganic nasals are not specified for point of articulation in the lexicon, since MSR 25 fills in the appropriate features.

[13]Paul Schachter (personal communication).

[14]The fact that the nasalizing form occurs only with stems containing nasals could be stated in a redundancy rule.

[15]I know of no examples of non-bound morphemes with the underlying structure /CV/; if they occurred, P 1 would have to be rewritten:

$$[+voc] \rightarrow \emptyset \ / \ C_o \ V \ C_o \ \_\_\_ \ \#$$

to prevent deletion of the only vowel in a word. (If this generalization about stems is correct, somehow morpheme structure rules should state it.)

[16]$[\alpha F]$ used to mean "agrees in all features".

[17]A small number of stems when reduplicated have a long vowel in the first syllable, e.g.

/kaiva/	<u>mountain</u>	/nainci/	<u>young girl</u>
[kaakaiv]	<u>mountain (pl)</u>	[naanainci-v]	<u>young girl (pl)</u>

Since stems must be lexically marked for whether they take $\begin{matrix} CV \\ \begin{bmatrix} +redup \\ +s \end{bmatrix} \end{matrix}$ or $\begin{matrix} CV \\ \begin{bmatrix} +redup \\ +g \end{bmatrix} \end{matrix}$ anyway, (see discussion, section 1.31 above), I propose to add $\begin{matrix} CVV \\ \begin{bmatrix} +redup \\ +g \end{bmatrix} \end{matrix}$ to the list of reduplication morphemes (all examples I have seen do not alter following consonants), and mark the appropriate stems accordingly.

[18]Suggested by P. Schachter.

[19]As written for example in: Chomsky and Halle (1968), Harms (1968), and Lovins (1970).

[20]For some morphemes this rule is optional, for others it is blocked; e.g. na-maɣa- <u>self-give</u> is not *nawaɣa-. (There is a frozen form nawaɣa- which now means "cost; dole out". Historically from /na-maɣa/, it has now been lexicalized.) The form /na-mavo?a/ <u>self-cover</u> is optionally na-wavo?a-. Sapir concludes that spirantization is no longer a productive process. I propose that since many morphemes have to be marked as unaffected by consonant-alternation rules anyway, m → w can still be treated as an active phonological rule.

[21]Hooper, op. cit.

2 SYNTAX

2.1 Phrase Structure Rules

1. $$S \rightarrow \left\{ \begin{array}{l} S\ S\ (S)^* \\ (CONJ)\ (NP)\ (SUBORD)\ VP\ (Q) \end{array} \right\}$$

2. $$SUBORD \rightarrow (NP)\ (VP)$$

3. $$NP \rightarrow \left\{ \begin{array}{l} (D)\ (NUM)\ (N)\ (D)\ (PP)\ (PTC)\ (D) \\ (NP)\ NOM \\ PRO \end{array} \right\}$$

4. $$PP \rightarrow NP\ \ POST$$

5. $$PTC \rightarrow S$$

6. $$D \rightarrow \left\{ \begin{array}{l} NP \\ POSS \end{array} \right\}$$

7. $$POSS \rightarrow NP$$

8. $$NOM \rightarrow VP$$

9. $$VP \rightarrow \left(\left\{ \begin{array}{l} PP \\ ADV \end{array} \right\} \right)^* \left\{ \begin{array}{l} (S)\ (NP)^*\ (V) \\ \quad PTC \end{array} \right\}\ (K)$$

These rules will be discussed in the sections to follow.

I adopt the convention that when all symbols in an expansion are parenthesized, one or more must be included.

2.2 Simple Sentences

2.21 Noun Phrases

The phrase structure rule expanding noun phrases in Chemehuevi is as follows:

(1) $$NP \rightarrow \left\{ \begin{array}{l} \quad (NP)\ NOM \\ (D)\ (NUM)\ (N)\ (D)\ (PP)\ (PTC)\ (D) \\ \quad PRO \end{array} \right\}$$

The symbol D will be expanded to $\left\{\begin{matrix}\text{POSS}\\ \text{NP}\end{matrix}\right\}$, where POSS is the source of possessive noun phrases (which are in the oblique case) modifying the head noun N in (1) above, and NP (from D) is the node to which third person pronouns attach when used as "demonstrative adjectives". Three nodes for D are provided because, although movement rules will allow still more orders, up to three can appear in a single NP. Since the actual form of demonstrative or possessive pronouns depends on whether they are prenominal or post-nominal, and since forms in both positions can occur at once (e.g. nii̇ni moa-n <u>my</u> <u>father</u>-<u>my</u>), deriving the second occurrence by a copy-transformation would seem to necessitate a "second lexical look-up", a device I would like to avoid (in the interest of further constraining the model). By having the slots for D available in the Phrase Structure, copying transformations can be dispensed with. (See section 2.214 on possessives and demonstratives.)

NUM stands for numeral, which modifies the head N and agrees with it in case.

PP is postpositional phrase, and is among other things a source of NP conjunction (see sections 2.23 on postpositions, 2.31 on conjunction).

PTC will be expanded to S, the source of relative clauses (which are always participles in Chemehuevi--see section 2.33). Participles may be used without head nouns, thus the N in (1) above must be optional.

(NP) NOM is the source of all nominalizations, with or without "subjects". (See section 2.34.)

2.211 Derivation of nouns

Simple nouns consist of proper nouns, pronouns, or common nouns. Common nouns usually consist of just a noun stem, but often are derived from a root (nominal or otherwise) plus some sort of derivational affix. The most common of these affixes is the set of "absolutive" suffixes, found throughout the Uto-Aztecan family. Absolutives are peculiar in that they attach to roots which are already noun roots, and furthermore, most of them delete when the noun is compounded (as the first member) or possessed (whether the possessor is a postfix or not).[1] Most absolutives have lost whatever semantic significance they once might have had. Since relatively few noun roots also function as verb roots, there is little if any functional load in absolutives' "marking" a word as a "noun".

In (2) below, examples are given of noun stems which appear to consist solely of a root, with no derivational affixes.[2] In the nominative case nothing else is added to these to make them "words", and nothing is deleted when they're compounded or suffixed.

(2) a. /paa/ water
b. /tua/ son
c. /kuna/ fire
d. /naga/ mountain sheep
e. /tomo/ winter

The underlying forms of absolutive suffixes are given in (3) below:

(3) -ci e.g. /puŋku-ci/ puŋkuc "dog"

{nɨni puŋk / puŋku-n} "my dog"

/sɨgɨpi-ci/ sɨgɨpic "lizard"

sɨgɨpi-rɨkaw?i-c "turning into a lizard"

(/-ci/ almost certainly originated from the diminutive suffix /-ci/, but as long as it behaves like an "absolutive" I will classify it as such.)

-cɨ e.g. /pavon?okwi-cɨ/ pavon?okwic "watermelon"

pavon?okwi-?asiv "watermelon rind"

-pi e.g. /sɨ?i-pi/ sɨ?ip "flower"

sɨ?i-rɨkaw?i-c "turning into a flower"

/kukwa-pi/ kukwap "stick"

kukwa-tapoka-ga "chopping wood"

-vi e.g. /sɨna?a-vi/ sɨna?av "coyote"

sɨna?a-rɨkaw?i-c "turning into a coyote"

/hawi-vi/ hawiv "corn"

hawi-n "my corn"

hawi-?ɨga-ga "planting corn"

-mpi e.g. /nɨwɨ-mpi/ nɨwɨmp "liver"

nɨwɨ-n "my liver"

-pɨ	e.g.	/sawa-pɨ/	sawap	"arrow-weed"
			sawa-kan	"arrow-weed house"
		/tɨvi-pɨ/	tɨvip	"earth, ground"
			tɨvi-tɨkaw?i-c	"turning into dirt"
-vɨ	e.g.	/maha-vɨ/	mahav	"tree"
			maha-?ɨga-n	"my tree-plant"
		/wana-vɨ/	wanav	"web"
			wana-?uŋ	"his web"
-mpɨ	e.g.	/aso-mpɨ/	asomp	"salt, alkaline"
			aso-kama-ga	"tasting salty"

The only semantic generalizations one might make on the basis of my data are that animate nouns tend to only take the absolutives /-ci/ and /-vi/; /-ci/ being apparently restricted to this class.[3]

Absolutives on most nouns in the oblique case are followed by the normal oblique marker /-a ~ -ja/, as in (4) below:

(4) puŋku-ci-a-n taŋa-vɨ

<u>dog</u>-<u>abs</u>-<u>ob</u>-<u>I</u> <u>kick</u>-<u>past</u> "I kicked the dog"

Plurals of nouns with absolutives retain them when the plural suffix is added:

(5) sɨna?av "coyote", sɨna?avi-m "coyotes"

sɨgɨpic "lizard", sɨgɨpici-w "lizards"

Absolutives seem to be retained when postpositions are added, even when the latter function as verbs (see section 2.23 on postpositions). Examples:

(6) oho-v "bone", oho-vɨ-wa? "with a bone"

puŋku-c "dog", puŋku-ci-wa? "with a dog"

tusu-p "flour", tusu-tɨkaw?i-c "turning into flour"

tusu-pɨ-want "part of (=post-position) the flour"

tɨvi-p "earth", tɨvi-pɨ-va?an "on the ground"

puŋku-c "dog", puŋku-ci-rua-ŋ "Give the dog!" (-tua = <u>towards</u>)

Some derivational suffixes regularly cause deletion of the absolutive:[4]

(7) tavu-c "hare", tavu-ruac "bunny" (<u>hare</u>-<u>offspring</u>, diminutive suffix, probably from tua-, <u>son</u>, plus /-ci/, dim.)

Some nouns occur with two absolutives in a row, as in:

(8) /muhu-mpɨ-ci/ muhumpɨc "owl"

{muhu-mpɨ-tɨkaw?i-c / muhu-ntɨkaw?i-c} "turning into an owl"

The overall situation with absolutives is actually not quite as simple as the above examples suggest. Some nouns optionally appear without the absolutive in non-compounded, nonpossessed environments. Others may include the absolutive in compounds or possessed forms, e.g. /aŋaa-vi/ aŋaav "ant", aŋaa-rɨkaw?i-c ~ aŋaa-vi-rɨkaw?i-c "turning into an ant"; /ukwi-vɨ/ ukwiv "charcoal", ukwi-rɨkaw?i-c "turning into charcoal", but ukwi-vɨ-n "my charcoal". Some nouns have a choice of absolutives (usually only in the nominative--one seems preferred with the oblique case), e.g. kwihi-p ~

kwihi-v "smoke", soo-g (=absolutive?) ~ soo-v "lungs". Other nouns have two different meanings in the nominative depending upon whether the absolutive is included or not. The oblique case of these nouns, however, does include the absolutive and can be translated both ways, e.g. /wici?aa/ "wing", /wici?aa-vɨ/ "feather", but /wici?aa-vɨ-a/ "wing, feather" in the oblique case. (Similarly, /tuku?aa/ "flesh", /tuku?aa-vi/ "edible meat", both /tuku?aa-vi-a/ in the oblique case.)

These facts strongly suggest that absolutives are extremely susceptible to relexicalization. For many nouns the absolutives are considered part of the stem in some environments, but not in others. (I am, for the sake of the discussion, calling a suffix an absolutive if it deletes in <u>any</u> environment and still allows the stem to be interpreted nominally--e.g. nominalizing suffixes which are retained in all the above environments but are deleted when the stem is verbal in meaning, do not count as absolutives. Obviously many historical cases of absolutives which now never delete will no longer be called absolutives here (although they are by Sapir, for example).) The system of absolutives itself does not seem to be in danger, since new suffixes seem to pile on as old ones meld into the stem. Rather, it is each particular instance of the absolutive, on a given noun stem, which is unstable and continuously in flux. The unique syntactic properties and the diffuse semantic classification (even historically) of these suffixes certainly

contribute to the explanation of their gradual fusion to the stem. (See Nichols (1973) for discussion.)

Under the present analysis, most absolutives might be handled (along with other derivational and inflectional processes) as a set of lexical redundancy rules. Nouns such as the examples in (3) will have three entries in the lexicon, as in the following example:

(9) a. $\begin{bmatrix} \text{/puŋku/} \\ \text{+N} \\ \text{-Prefix} \\ \underline{\text{dog}} \\ \text{POSSESSED} \end{bmatrix}$ b. $\begin{bmatrix} \text{/puŋku+ci/} \\ +_{N}[[N]+abs] \\ \text{-Prefix} \\ \underline{\text{dog}} \\ \text{UNPOSSESSED} \end{bmatrix}$ c. $\begin{bmatrix} \text{/puŋku/} \\ \text{+N} \\ \text{+Prefix} \\ \underline{\text{dog}} \\ \\ \end{bmatrix}$

The first line in each entry gives the underlying phonological representation, features such as [+Prefix] (marking the form used as the first member of a compound) and [+N] are syntactic; the feature $+_{N}[[N]+abs]$ is intended to show that in addition to the form being a N it has the internal structure $\begin{array}{c} N \\ \diagup \quad \diagdown \\ N \quad abs \end{array}$. The underlined glosses are to be taken as an informal representation of the semantic information the entry contains. I make no claims about the form such information should take, but include further aspects of the meaning (e.g. POSSESSED) any formalism must provide for.

(One could have handled the prefix form /puŋku/, which is unspecified for POSSESSION, via a phonological rule deleting absolutives before stems in the same word. However I am

avoiding such rules since by deleting morphemes they violate the spirit of the constraint on <u>transformational</u> rules. Ultimately a more comprehensive model would extend this constraint to phonological rules as well, certainly more so than I have done.)

Since there are many triplets of entries which behave in the same way, a lexical redundancy rule of the following form can eliminate the cost of restating those features each triplet has in common:

$$(10)\ \text{a.}\begin{bmatrix} /\underline{x}/ \\ +N \\ -\text{Prefix} \\ \text{POSSESSED} \end{bmatrix} \leftrightarrow \text{b.}\begin{bmatrix} /\underline{x} + \text{abs}/ \\ +_N[[N]]+\text{abs}] \\ -\text{Prefix} \\ \text{UNPOSSESSED} \end{bmatrix} \leftrightarrow \text{c.}\begin{bmatrix} /\underline{x}/ \\ +N \\ +\text{Prefix} \end{bmatrix}$$

(Following Jackendoff, $\underline{x}$ represents the phonological string in common, and $\longleftrightarrow$ means "implies the existence of".)

The cost of referring to the rule in (10) must of course be added to the entries, and intuitively that cost should be somewhat greater than referring to e.g. a rule relating nominative forms of nouns to oblique forms (which is exceptionless and therefore should be costless). Jackendoff proposes quite reasonably that, for each set of items which are relatable by a lexical rule R, the cost of referring to R should somehow be porportional to the percentage of words which could "undergo" R but don't (i.e. $\frac{\text{those that can but don't}}{\text{those that can}}$).

This makes lexical rules relating only a handful of items very costly to refer to. This also means that the more narrowly the group of words can be characterized in the rule, the more one decreases the cost (e.g. if the rule in (10) weren't restricted to nouns, the fact that no verbs are relatable by it would add to the rule's price. We could reduce the existing cost a bit more by restricting (10) to non-pronouns, since pronouns never have absolutives.)

All in all there will be four triads of rules like the one in (10), one for each absolutive suffix (/-ci, -cɨ, -pi, -pɨ/; the variants -mpi, -vi, etc. are predictable from the "spirantizing" and "nasalizing" features on the stem, see section 1.31). Whereas each triad actually represents three separate implicational rules (in (10) above, (a) $\longleftrightarrow$ (b), (b) $\longleftrightarrow$ (c), and (a) $\longleftrightarrow$ (c)), the "full entry theory", unlike the "impoverished entry theory", does not require that individual rules be "numbered" or specifically referenced in entries. Therefore I see no reason for not simply incorporating the subparts of (10) into a general noun-paradigm (formally similar to Shopen) where each cell implies the existence of the others. In proposing his formalism for lexical redundancy rules, Jackendoff argues that the semantic portions of each rule be removed from the morphological portions, into a separate rule. Dividing (10) into a Morphological rule and a Semantic rule, as in (11) and (12) below, allows some of the exceptions discussed earlier to be accommodated:

(11) M a. $\begin{bmatrix} /\underline{x}/ \\ +N \\ -\text{Prefix} \end{bmatrix} \longleftrightarrow$ b. $\begin{bmatrix} /\underline{x} + ci/ \\ +_N[[N]]+\text{abs}] \\ -\text{Prefix} \end{bmatrix} \longleftrightarrow$ c. $\begin{bmatrix} /\underline{x}/ \\ +N \\ +\text{Prefix} \end{bmatrix}$

(12) S a. $\begin{bmatrix} +N \\ \text{POSSESSED} \end{bmatrix} \longleftrightarrow$ b. $\begin{bmatrix} +_N[[N]]+\text{abs}] \\ \text{UNPOSSESSED} \end{bmatrix} \longleftrightarrow$ c. $\begin{bmatrix} +N \\ +\text{Prefix} \\ *\text{POSSESSED} \end{bmatrix}$

(There will be four such M-rules of course, but only one such S-rule, since only the former specifies the shape of the absolutive.)[5]

For example, /ukwi-vɨ/ "charcoal" can now be viewed as a set with gaps as follows:

(13) a. $\boxed{\begin{array}{l} /\text{ukwi}/ \\ +N \\ +\text{Prefix} \\ \underline{\text{charcoal}} \end{array}}$ b. $\boxed{\begin{array}{l} /\text{ukwi-vɨ}/ \\ +_N[[N]+\text{abs}] \\ -\text{Prefix} \\ \underline{\text{charcoal}} \end{array}}$ c. $\boxed{}$

(no entry for $*\begin{bmatrix} /\text{ukwi}/ \\ -\text{Prefix} \end{bmatrix}$.)

(13a) and (b) are related by rule M(b-c) in (11) above, but by none of the three possible S-rule relations (a-b, b-c, or a-c) since prefixation, not possession, seems to be the only parameter for determining the form of <u>charcoal</u>.

Other derivational suffixes

In addition to the absolutives there are a few other derivational suffixes in Chemehuevi which add to noun stems to create other nouns. Following is a list of these suffixes, along with examples of each:

(14) a. /-ci/ "small" (diminutive, added to concrete nouns.)

e.g. wihi-c "small knife" < /wihi/ "knife"

puŋkuci-c "little dog" < /puŋkuci/ "dog"

b. /-pɨ/ "plant, bush" (added to stems denoting fruits of plants.)[6]

e.g. opi-mp "mesquite" < /opi/ "mesq. bean"

iǰaavi-mp "grapevine" < /ijaavi/ "grapes"

hu?upi-v "sqwawbush" < /hu?upi/ "sqwawbush berry"

c. /-vɨ/ "language" (added to tribenames)

e.g. ajata-v "Mojave lang." < /ajata/ "Mojave"

haiku-v "English" < /haiku/ "whiteman"

d. /-pɨ/ "old, abandoned"

e.g. kani-p "abandoned house" < /kani/ "house"

e. /-vɨ/ "skin, material"

e.g. puŋku-v "wool" < /puŋku/ "domesticated animal (sheep)"

tɨhija-v "deerhide" < /tɨhija/ "deer"

A handful of suffixes which are associated in one way or another with "possession" but which otherwise seem to make no semantic contribution are given in (15). They are apparently restricted to nouns which are inalienably or inherently possessed.

(15) a. /-wa/ (added to many body parts and plant parts, though not to all of them.)

e.g. {pa̱i-wa-n / nɨ̱ɨni pa̱i-w} "my blood" < /pa̱i-pi/"blood"
blood-abs

huvaa-wa-uk "its sap" < /huvaa/ "sap"

kuca-wa-uk "its ashes" < /kuca-pɨ̱/"ashes"
ashes-abs

(an example which is not a body part is:)

tɨ̱vi-wa-n "my land" < /tɨ̱vi-pɨ̱/ "ground"
ground-abs

(To the extent that the last example in (a) is interpretable as "territory", one could still make the generalization that all the above noun stems are "normally" possessed, except when used with their absolutives.)

b. /-ʔaa/ (also added to body parts, with distribution distinct from -wa. There are still many body parts which take neither.)

e.g. sagwi-ʔaa-n "my guts" < /sagwi-vi/ "guts"
guts-abs

pavonʔokwicɨ̱ asi-ʔa "watermelon rind"

< /asi-vɨ̱/ "skin"
skin-abs

naŋka-ʔaa-ik "its leaf" < /naŋka-vɨ̱/
leaf-abs

c.f. naŋka-vɨ̱-n "my leaf"
(not part of my body)

c. /-akaa/ (added to body parts, kinship terms, objects which also normally have to "belong" to something or someone.)

e.g. juʔu-akaa-v "one's leg" < /juʔu/ "leg"

e.g. moa-akaa-v "someone's father" < /moa/ "father"

pipiso?o-akaa-m "their children"

< /pi-piso?o-ci/ "children"
pl-child-abs

The suffix -akaa normally cooccurs with the suffix -vi "someone's" (see (d) below), though a few examples exist (e.g. "children") with a true possessive pronoun. All the examples I have obtained with -akaa are in the nominative; in oblique cases it deletes leaving only the -vi or possessive suffix.

d. /-vi/ (unlike all the above, this is added to nouns normally possessed which don't have an overt possessor in the sentence.)

e.g. ju?u-v "someone's leg" /ju?u/ "leg"

niwi-?aa-v "someone's body" /niwi/ "body"

This suffix is difficult to distinguish from an absolutive in many cases, since it can as easily be translated, e.g. "a leg". It, too, would of course disappear when the noun is possessed, and never shows up in compounds. It is the only quasi-absolutive which can follow -akaa or -?aa, however. It differs from normal possessive pronouns in that it is always a suffix and it is followed by the oblique marker -a, whereas possessive pronouns are preceded by -a, e.g. ju?u-vi /ju?u-vi-a/ "someone's leg (oblique)". (See section 2.214 on possessives.)

Lexical rules for the suffixes in (14) will vary in generality. The suffix -ci seems to be the most productive;

I know of no noun that can't add it (though it is probably restricted to count nouns). Thus the lexical redundancy rules for -ci should be fairly straightforward:

(16) M: $\begin{bmatrix} /\underline{x}/ \\ +N \\ +Count \end{bmatrix} \longleftrightarrow \begin{bmatrix} /\underline{x} + ci/ \\ +_N[[N]+dim] \\ +Count \end{bmatrix}$

S: $\begin{bmatrix} +N \\ +Count \\ X \end{bmatrix} \longleftrightarrow \begin{bmatrix} +_N[[N]]+dim] \\ +Count \\ LITTLE\ X \end{bmatrix}$

Since -ci appears to be the only suffix with this semantic relationship it would be tempting to collapse the above rules into one. It seems to me that aside from the convenience in sometimes separating morphological and semantic lexical rules, there is no formal reason why they <u>must</u> be separated. Jackendoff claims that the cost of "referring" to morphological and semantic lexical rules must be measured independently, i.e. added together. This seems reasonable for cases where the two do not exactly correlate, as in Jackendoff's examples in English and the absolutives above. However, (just as intuitively) rules such as the ones in (16) which <u>do</u> correlate exactly should <u>not</u>, it seems to me, contribute twice to the cost. (Recall, it is the number of rules involved, not the content of each, that potentially increases the amount of "new information" one learns for a new word. Thus the question is not a moot one.) Therefore, I would rewrite (16) as the combined rule in (17) below, and

would continue to do so whenever a single morpheme has a one-to-one relationship with a semantic contribution.[7]

(17) $$\begin{bmatrix} /\underline{x}/ \\ +N \\ +Count \\ X \end{bmatrix} \longleftrightarrow \begin{bmatrix} /\underline{x} + ci/ \\ +_N[[N]+dim] \\ +Count \\ LITTLE\ X \end{bmatrix}$$

The second suffix in (14) is restricted to a much smaller set of nouns, namely those denoting fruits of plants. Within this set the suffix -pɨ is fairly, though not completely, productive. Although there are existing gaps in the lexicon, in the data reported by Harrington recent borrowings into Chemehuevi utilized this suffix (e.g. /lemani/ "lemon", /lemani-vɨ/ "lemon tree"). The following lexical rule, then, will be somewhat costlier than the one in (17) not because the set of potential nouns is smaller, but because of the few gaps:

(18) $$\begin{bmatrix} /\underline{x}/ \\ +N \\ X\ FRUIT \end{bmatrix} \longleftrightarrow \begin{bmatrix} /\underline{x} + pɨ/ \\ +_N[[N]+plnt] \\ X\ PLANT \end{bmatrix}$$

Similar rules can be written for the other suffixes in (14).

The suffixes associated with possession are somewhat more complicated semantically. I would propose the following rule (of which there are three,[8] for the "possessives" -wa, -akaa, and -ʔaa):

$$(19)\quad \begin{bmatrix} /\underline{x}\ (+\ \text{abs})/ \\ +N \\ \text{INHERENTLY POSSESSED} \\ \text{UNPOSSESSED} \end{bmatrix} \longleftrightarrow \begin{bmatrix} /\underline{x} + \text{wa}/ \\ +_N[[N]+\text{poss}] \\ \text{INHERENTLY POSSESSED} \\ \text{POSSESSED} \end{bmatrix}$$

For those words which have absolutives (and for which the poss suffix is obligatory) the only occurrences of the stem alone will be in compounds. They will all have gaps in the paradigm much as <u>charcoal</u> did in (13) above. They will refer only to (i.e. have forms relatable to them by) rule M(b-c)[9] in (11) and rule S(b-c) in (12) above.

I will use POSSESSED in the rules above to mean that the form cooccurs with an overt possessor in the sentence. INHERENTLY POSSESSED will be used to describe nouns that are expected to be possessed, though not always inalienably (e.g. "territory", "food-store"). When an overt possessor is available, these are the nouns which augment their stems with a poss suffix. When they lack a possessor (e.g. "I saw a head in the road") the tendency is to attach -vi "someone's" (as it is in English; "You're on $\left\{\begin{matrix}\text{someone's}\\ \text{*a/some}\end{matrix}\right\}$ property"), but in most cases the absolutive form is permissible instead.

The presence of the poss suffix in effect demands an overt possessor, just as did the lack of absolutives on non-prefixed forms of absolutive-taking nouns. If the sentence should fail to provide one, interpretive rules will uncover the inconsistency and throw out the sentence as uninterpretable. (Number agreement will be handled the same way.)

The suffix -vi "someone's" is entirely productive and can be used on any noun which can be possessed, in lieu of a possessor. (For nonpossessable nouns, see section 2.214 on possessives.) To capture the semantics I will introduce a third semantic category[10] POSSESSABLE, which redundantly includes anything which is INHERENTLY POSSESSED, but also includes such things as shirts and refrigerators as well. Since nouns with -vi may not be overtly further possessed at the same time, the following lexical rule will handle them:

$$(20)\quad \begin{bmatrix} /\underline{x}\ (+\ \text{abs})/ \\ +\text{N} \\ \text{POSSESSABLE} \end{bmatrix} \longleftrightarrow \begin{bmatrix} /\underline{x} + \text{vi}/ \\ +_{\text{N}}[[\text{N}]+\text{indef poss}] \\ \text{UNPOSSESSABLE} \end{bmatrix}$$

Nouns in Chemehuevi can also be derived from verb stems as well. Nominalizations formed with the suffix /-na/ have some noun-like properties, yet cooccur with tense suffixes. These will be treated separately in section 2.34. A second type of nominalization is formed with the suffix /-pɨ/, does not take normal tense elements and adds the case marker -a when in the oblique case. Whereas nominalizations with -na always have a consistent, predictable translation, nominalizations with -pɨ are somewhat more idiosyncratic and the suffix is not as productive. Examples of verb + pɨ are given in (21):

(21) a. /pa-hoora-pɨ/ "well" < /pa-hoora/ "dig a well"

/tɨnia-pɨ/ "story, news" < /tɨnia/ "tell, say"

/suwa-pɨ/ "breath" < /suwa/ "breathe"

/tɨga-pɨ/ "picture, snapshot" < /tɨga/ "take a picture"

b. /tɨka-pɨ/ "eating" < /tɨka/ "eat"

/navakɨ-pɨ/ "swimming" < /navakɨ/ "swim"

/ivani?i-pɨ/ "being here" < /ivani?i/ "be here"

Most of the examples in (21a) can be viewed as the "result of" the respective verbs. The examples in (b) translate more as the activity itself in sentences such as "Eating makes me fat," or "Swimming is dangerous." As the complement to verbs like <u>know</u>, they usually translate as action completed prior to the tense of the main verb, as in (22):

(22) a. <u>John</u> <u>Anni</u> ivani?i- pɨ-a-uŋ putucuga-vɨ

<u>John</u> <u>Ann(ob)</u> <u>be here</u>-<u>nml</u>-<u>ob</u>-<u>her</u> <u>know</u>-<u>past</u>

"John knew Ann had been here."

b. <u>John</u> <u>Anni</u> ivani?i-pɨ-a-uŋ ha?ɨsutu?i-vɨ

<u>John</u> <u>Ann(ob)</u> <u>be here</u>-<u>nml</u>-<u>ob</u>-<u>her</u> <u>like</u>-<u>past</u>

"John liked Ann('s) having been here."

(compare with the following example without an embedded "subject":)

c. nɨɨ-k nukwi-pɨ ha?ɨsutu?i-c

I <u>run</u>-<u>nml(ob)</u> <u>like</u>-<u>habit</u>

"I like running."

I propose these nominalizations all originate in the phrase structure as simple N, and in the case of (22a,b) as a possessed noun, D + N. The different types of -pɨ are morphologically the same, though their exact semantic contributions differ. (It may be that (22a,b) can also be interpreted as "result of VERBing" and differ from the examples in (21) in that the latter are "concrete", the former "abstract.") As a first approximation, one might envision the following lexical rules:

(23) M: $\begin{bmatrix} /\underline{x} + pɨ/ \\ +N \end{bmatrix} \longleftrightarrow \begin{bmatrix} /\underline{x}/ \\ +V \end{bmatrix}$

(24) S: a. $\begin{bmatrix} +N \\ +[(_D[NP_1])\_\_\_(P\ NP_2)] \\ \text{CONCRETE RESULT} \\ \quad \text{OF X-ING} \end{bmatrix} \longleftrightarrow \begin{bmatrix} +V \\ +[NP_1((P)NP_2)\_\_] \\ X \end{bmatrix}$

b. $\begin{bmatrix} +N \\ +[(_D[NP_1])\_\_(P\ NP_2)] \\ \text{ABSTRACT RESULT} \\ \quad \text{OF X-ING} \end{bmatrix} \longleftrightarrow \begin{bmatrix} +V \\ +[NP_1((P)NP_2)\_\_] \\ X \end{bmatrix}$

c. $\begin{bmatrix} +N \\ +[(_D[NP_1])\_\_(P\ NP_2)] \\ \text{ACT OF X-ING} \end{bmatrix} \longleftrightarrow \begin{bmatrix} +V \\ +[NP_1((P)NP_2)\_\_] \\ X \end{bmatrix}$

Other less productive nominalizing suffixes are listed in (25) below, along with examples of each.

(25) a. /-numpɨ/ "instrument" THING WITH WHICH ONE VERBS

e.g. kusa?a-nump "frying pan"

<u>fry</u>-<u>instrum</u>

tavi-nump "hammer"

hit-instrum

pa-jua-nump "bucket"

water-carry-instrum

(See section 2.224 on object-prefixation.)

b. /-tɨaa/ "place" PLACE FOR VERBING

e.g. havi-tɨa "bed"

lie-place

karɨ-tɨa "chair"

sit-place

tɨka-tɨa "table, anyplace one eats"

eat-place

c. /-ci/ PERSON WHO (REGULARLY) VERBS

e.g. tapica-c "lawman" (one who ties people up)

tie-one

tupunua-c "Negro"

dark-one[11]

d. /-pi/

e.g. tɨka-p "foodstore, food"

eat-suffix

nɨŋa-p "basket"

basket-weave-suffix

The suffix in (d) seems to translate variously as "what one VERBs" and "result of VERBing", depending on the stem. A single morphological redundancy rule could take care of the form, namely:

(26) M: $\begin{bmatrix} /\underline{x} + pi/ \\ +N \end{bmatrix} \longleftrightarrow \begin{bmatrix} /\underline{x}/ \\ +V \end{bmatrix}$

However I would not try to write a single corresponding semantic rule for this suffix. Instead the words could be related by the semantic rule (a) in (24) above in the case of nɨŋa-p, and by a separate, also generalizable rule for "objects of actions" in the case of tɨka-p.

(For participles used as nouns, see section 2.33.)

Compounds

Compounding is very common in Chemehuevi, some types being extremely productive. If compounds resulting in nouns are considered to be lexical entries, the most common types might be characterized by rules such as the following (most adapted from Jackendoff (to appear)):

(27) M: $\begin{bmatrix} /\underline{x} + \underline{y}/ \\ +_N[[N]+[N]] \end{bmatrix} \longleftrightarrow \begin{bmatrix} /\underline{x}/ \\ +N \end{bmatrix}$

$\nwarrow\!\!\searrow \begin{bmatrix} /\underline{y}/ \\ +N \end{bmatrix}$

S: a. $\begin{bmatrix} +_N[[N_1]+[N_2]] \\ \text{X WHICH IS A Y} \end{bmatrix} \longleftrightarrow \begin{bmatrix} +N_1 \\ X \end{bmatrix}$

$\nwarrow\!\!\searrow \begin{bmatrix} +N_2 \\ Y \end{bmatrix}$

b. $\begin{bmatrix} +_N[[N_1]+[N_2]] \\ \text{X WHICH BELONGS TO Y} \end{bmatrix} \longleftrightarrow \begin{bmatrix} +N_2 \\ X \end{bmatrix}$

$\begin{bmatrix} +N_1 \\ Y \end{bmatrix}$

c. $\begin{bmatrix} +_N[[N_1]+[N_2]] \\ \text{X MADE OF Y} \end{bmatrix} \longleftrightarrow \begin{bmatrix} +N_2 \\ X \end{bmatrix}$

$\begin{bmatrix} +N_1 \\ Y \end{bmatrix}$

d. $\begin{bmatrix} +_N[[N_1]+[N_2]] \\ \text{X PART OF A Y} \end{bmatrix} \longleftrightarrow \begin{bmatrix} +N_2 \\ X \end{bmatrix}$

$\begin{bmatrix} +N_1 \\ Y \end{bmatrix}$

The rules in (28) could handle instances of verb + noun compounds:

(28) M: $\begin{bmatrix} /\underline{x} + \underline{y}/ \\ +_N[[V]+[N]] \end{bmatrix} \longleftrightarrow \begin{bmatrix} /\underline{x}/ \\ +V \end{bmatrix}$

$\begin{bmatrix} /\underline{y}/ \\ +N \end{bmatrix}$

S: $\begin{bmatrix} +N \\ \text{X WHICH IS Y} \end{bmatrix} \longleftrightarrow \begin{bmatrix} +V \\ Y \end{bmatrix}$

$\begin{bmatrix} +N \\ X \end{bmatrix}$

Examples of each rule are given in (29):

(29) a. naga-vuŋkuc "domesticated mountain sheep"

mt. sheep-pet

papawa-mpi "she-bear"

bear-female

b. wa?arovi-mpagap "horseshoe"

horse-shoe

c. kukwa-tɨkatɨa "wooden table"

wood/stick-table

pa-rɨ?asɨ-tɨwap "window"

water-freeze-closing (pa-rɨ?asɨ- is used for "glass".)

d. kaiva-kuvaj?a "mountain top:

mountain-top

e. (Rule (28) S:)

aŋka-gan "red house"

red-house

aɨ-nɨw "young person"

new-person

Alternatively, one might abandon trying to state in the grammar all possible semantic relationships the two members of a compound could have. A single semantic rule might simply associate the two members in an unspecified way. The possibilities (and probabilities) of their relationship's are perhaps more in the domain of "knowledge of the real world".

2.212 Pronouns

The independent pronoun system in Chemeheuvi can be described with the following features: person (I, II, III), number (singular, dual, several), exclusivity (vs. inclusivity of addressee), proximity (here, visible, invisible) and animateness. These combine to give the following independent personal pronouns (cited in underlying form):

(30)	SING	DUAL	SEVERAL	
I	nɨɨ/nɨɨnɨ	tami	tawɨ	INCLUSIVE
		nɨmi		EXCLUSIVE
II	ɨmi	mɨmi		
III (anim)	iŋa	imɨ		here
	maŋa	mamɨ		visible
	uŋa	umɨ		invisible
(inan)		icɨ/ika/i-		here
		marɨ/maka/ma-		visible
		urɨ/uka/u-		invisible

The first person singular has two possible stems, the second being the suppletive form used in oblique cases (namely with the accusative/possessive -a ~ -ja). Either stem can be used with postpositions, e.g. nɨɨ-waʔi- ~ nɨɨni-waʔi- "with me"; nɨɨ-rua- ~ nɨɨni-cua- "give me". (For postpositions as verbs, see section 2.23.) The third person inanimate pronouns have three series of stems, and use the third series (i-, ma-, u-) only with postpositions. The second series are the suppletive forms used with the oblique suffix.

First person inclusive is the only category utilizing the dual-several contrast. If it weren't for the fact that the distinction occurs outside the pronoun system as well, one might be able to dispense with it here, breaking down tami and tawɨ as [I-sg + II-sg] vs. $\left[\text{I-sg} + \left\{\begin{matrix}\text{II-pl} \\ \text{II-sg + III}\end{matrix}\right\}\right]$, respectively. nɨmi could be viewed as [I-sg + III].

The number feature undergoes further syncretism in the set of inanimate pronouns, where no number distinction is marked overtly at all. Semantically, however, inanimate things may be understood to be singular or plural--when an inanimate subject or object is plural, the number suffixes on the verb reflect this.

The proximity features, relevant only to third-person pronouns, are not really three points in a distince spectrum. "Here" means both visible and close to the speaker (within, say, arms' reach). "Visible" means some distance away (actually, any distance, beyond arms' reach, as long as it's within sight of the speaker) and "invisible" means out of sight, whatever the distance. There is no indefinite, unmarked pronoun as there is in Southern Paiute (aŋa, amɨ, arɨ, "indefinite" third person sg, pl, inanimate, respectively (Sapir p. 177).)

All third person pronouns are in fact demonstrative pronouns and may also function as demonstrative adjectives (modifying nouns--see section 2.214). In addition, each form may occur with an optional prefix /hu-/, whose contribution to the meaning, if any, is not yet determined. hu-

may be prefixed whether the pronoun is used as a pronoun or modifier, whether it occurs alone or in a postpositional phrase (e.g. hu-ʔu-va, there), and even with postpositional verbs (e.g. hu-ʔuva-niʔi-vɨ, "was being there"). Furthermore, hu- shows up (optionally) on words derived from third person pronoun roots, either transparently, as in the series i-cuʔa, ma-ruʔa, u-ruʔa, "resembling this, that, that-invis", respectively, or not transparently, as in the verbs based on mai-, say, which historically seems to be derived from ma-. Thus, one finds hu-mai, alongside mai-, and hu-mai--ni, alongside mai--ni, think. Sapir makes no mention of such a prefix in Southern Paiute, though Harrington and Munro both find copious examples in their Chemehuevi dialects.

For oblique cases of independent pronouns, see discussion of noun inflection in general, section 2.213. (All forms take -a in the oblique case, except those whose final stem vowel is -a, which take -ja.)

Each of these pronoun forms will be entered in the lexicon with the feature [+pro]. In the case of 1st and 2nd person, a strict subcategorization feature, $-[^{D}[^{NP}[\_\_\_]]]$, will prevent their insertion under a NP node directly dominated by a D node, since they cannot be used as demonstratives. As NPs all pronoun forms except the first two stem variants of the inanimate pronouns may be inserted immediately before a postposition. For the inanimates, icɨ-, marɨ-, urɨ-, ika-, maka-, and uka- will all be marked -[___Post]; the forms i-, ma-, and u- will be marked +[__Post].

The forms with hu- will also be separate entries. Their cost can be reduced by the following lexical redundancy rule:

(31) $\begin{bmatrix} /\underline{x}/ \\ +\text{pro} \\ \text{IIIpers} \end{bmatrix} \longleftrightarrow \begin{bmatrix} /\text{hu} + \underline{x}/ \\ +\text{pro} \\ \text{IIIpers} \end{bmatrix}$

<u>Postfix pronominal forms</u>

All personal pronouns have postfix forms which can be used in place of their independent forms (usually not in addition to them, but see section 2.4). The following table gives the underlying forms of each:

(32)

	SING	DUAL	SEVERAL	
I	-nV	-rami	-rawɨ	INCLUSIVE
		-nɨmi		EXCLUSIVE
II	-ukV ~ -? /-mV	-wV /__		subject /object
III (anim)	-iŋa	-imɨ		here
	-aŋa	-amɨ		visible
	-uŋa	-umɨ		invisible
(inan)	-ika			here
	-aka			visible
	-uka			invisible

In general the choice of whether to use the independent forms or the postfix forms depends on what in the sentence is considered "new information" and what is "old information". The normal way to respond to the question, "Who ate?" would be maŋ tɨka-vɨ "<u>He</u> ate", for example, whereas a response to "What did he do?" would be tɨka-vɨ-aŋ, "He

ate". The emphasis is apparently rather mild; in isolation (out of discourse context) the two forms alternate freely for most elicited sentences. There are in addition two or three stronger devices for focusing and emphasizing constituents. In Southern Paiute (and for Pamela Munro's Chemehuevi informant) some of the distinction in proximity is lost in the postfix forms (Sapir p. 183). If the theory here is correct, it is easy to see why--when the referent is understood, the demonstrative aspect of the pronoun is less needed. (When the pronoun is even more de-emphasized, it can be dropped altogether, though in isolation such sentences are re-judged "incomplete".)

The second person postfixes are somewhat irregular. In non-imperative sentences (for imperatives, see section 2.26) when "you [singular]" is the subject, it almost always uses -ukV for the postfix form. This morpheme may be historically from the third person inanimate invisible postfix (Sapir and Harrington both allude to it, but Sapir's examples don't include this particular usage; for other uses of this postfix, see section 2.225) however, since there is no synchronic motivation for calling it such, I will not. Due to various morpheme order constraints, no postfix or enclitic may ever follow -ukV in a word, therefore it is impossible to tell what the final vowel is (synchronically).

When "you [singular]" is the object, its postfix form is -mV (again, since nothing ever follows it, the vowel never shows up).

When "you [plural]" is the subject, the postfix form is -wV. When "you [plural]" is the object, no postfix form seems to exist. Apparently only the independent form is used. I have no explanation for this gap.

There is an alternate form for the subjective "you [singular]", namely -? (glottal stop), which is used consistently in imperatives but also occasionally in non-imperatives as well. MM always seems to prefer -ukV in non-imperatives, but will often accept -?, occasionally volunteering it (largely in interrogative sentences). In Harrington's data the opposite was true--the subjective postfix usually being -? and only occasionally -uka̤; hence I would assume the glottal stop to be the older form, now being replaced by -ukV.

No other pronominal postfixes reflect a case distinction.

The first person singular postfix also has an indeterminate vowel, since it too is last in any sequence of suffixes, enclitics, and postfixes. One might wonder how both first-person and second-person pronominal postfixes can be constrained to be last in a series, since postfixes may attach to each other. In fact, there is also a strong constraint in MM's dialect of Chemehuevi which forbids first-

and second-person postfix pronouns from cooccurring in the same word. (For more on pronominal postfix sequences, see section 2.4.) Historically, the final vowel in -nV was i. All these final vowels are recoverable from Harrington's material, since his informant did not delete final vowels, but only devoiced them.

The inclusive first person forms both begin with r, or more accurately /t/. (The forms are marked for obligatorily undergoing the "spirantizing" rule--features on preceding morphemes are prevented from affecting it.)

These postfix forms are also separately listed in the lexicon. They are assumed to have the features $\begin{bmatrix} +\text{pro} \\ +\text{bnd} \\ -\text{prefix} \end{bmatrix}$.[12] (The full pronoun forms in the previous section are actually marked [*prefix] since all nouns and pronouns can appear prefixed to certain verbs.) The lexical rule in (33) specifies the redundancy between the independent and bound pronoun forms:

(33) $$\begin{bmatrix} +\text{pro} \\ \alpha\text{bnd} \\ \alpha\text{prefix} \end{bmatrix} \longleftrightarrow \begin{bmatrix} +\text{pro} \\ +\text{bnd} \\ -\text{prefix} \\ \text{NONFOCUSED} \end{bmatrix}$$

The correct positioning of these bound forms with respect to other words and morphemes will be handled in the transformational component and by output conditions.

In addition to personal pronouns, there are interrogative pronouns, treated in section 2.242; a relative pronoun, discussed in section 2.33; and a reflexive-reciprocal morpheme, discussed below.

Reflexive-reciprocal morpheme

In sentences where the verb can be interpreted either reflexively or reciprocally, a prefix /na-/ is added to the verb. (Derived from this is a non-bound morpheme nahump which translates as "oneself" in such sentences as "I myself saw him" or "He did it himself", but this is generally emphatic rather than "reflexive". Examples of na- are given in (34) below:

(34) a. maŋ na-wavo?a-mpɨ
he self-cover-past
"He covered himself"

b. nɨ na-nukwi-tu?i-j
I self-run-cause-pres
"I am making myself run"

c. im na-ju?a-ka-vɨɨ-m
these self-carry-sev-past-pl
"They carried each other/themselves"

d. nɨ {pa?a-ntɨ-m / pa?a-j} na-mai-vɨ
I {tall-habit-anim / tall-pres} self-say-past
"I said I was tall"

e. Ann Johni na-ha?ɨsutu?i-ŋu-tu?i-vɨ
Ann John(ob) self-like-mom-cause-past
"Ann made John like her/himself"

Reflexivization seems to occur in a greater number of environments in Chemehuevi than in English, as shown in examples (34d) and (34e) (first meaning) above. I will return to these below.

Example (34c) illustrates the fact that sentences with plural subjects are ambiguous as to whether the action was reflexive or reciprocal. Frequently na- is reduplicated when the subject is plural, as in (35) below;

(35) na-na-goi-ka-vɨɨʔɨm
self-self-kill-sev-past-they
"They killed themselves/each other"

Even when reduplicated, the sentence is still ambiguous.

When the subject is a semantically "conjoined" noun phrase arising from a postpositional phrase using /-wai/ with (see section 2.31), the action is still ambiguous, as in (36):

(36) maŋ mamɨ-wa na-na-goi-ka-vɨɨ-m
he them-with self-self-kill-sev-past-pl
"He and they killed themselves/each other"

However, semantically conjoined subjects which use /-gajaa/ (section 2.31) result in non-ambiguous sentences; nouns to which -gajaa has been added are translated more as "and noun, too" and are not thought of as accompanying the subject in the action. (In fact, in section 2.31 I will argue that the source of noun + gajaa is in a subordinate clause.) Therefore, verbs with na- translate only as reflexive. Example:

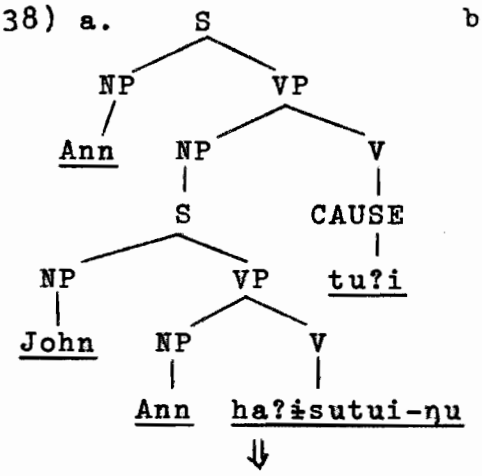
(37) John aipaci-gaja na-gukwi-vɨɨ-m
John boy-too self-shoot-past-pl
"John and the boy each shot themselves/*shot each other"

Examples (34b) and (34e) both involve the causative

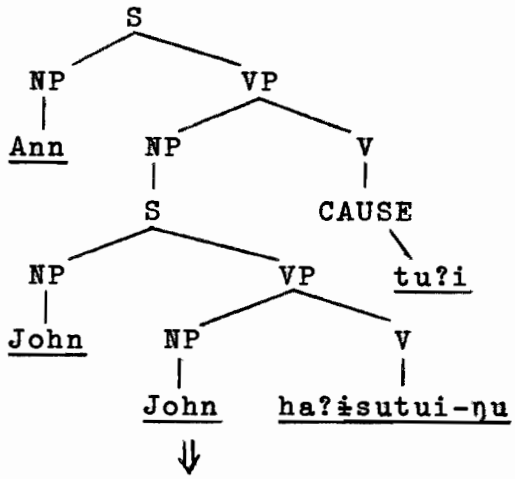
/-tu?i/, which in a normal transformational approach could be analysed either as a higher verb, or as a "transitivizing" suffix attached in the lexicon. In the latter case, the "combined" verb in (34b) is transitive, and na- replaces the object just as in (34a). The ambiguity in (34e) however, means in a non-embedded clause approach one must interpret na- as replacing an object identical to another object in the same clause (for verbs suffixed with -tu?i), as well as one identical to the subject.

If we call -tu?i a higher verb, we can easily restrict na- to replacing objects under subject identity only. The two sources for the ambiguous readings in (34e) would then be as follows:

(38) a.



b.

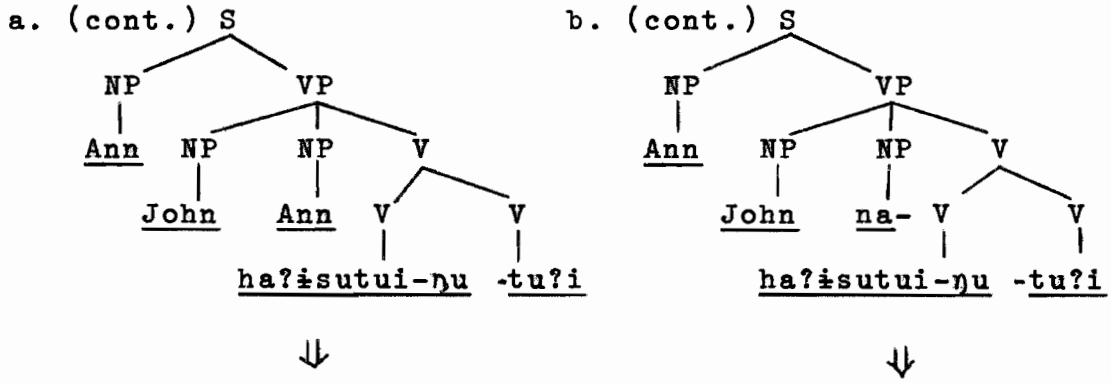


Cycle 1:

reflex _____ John na- ha?ɨsutuiŋu

Cycle 2:

raising
Vb-incorporation



reflex

Ann John na- ha?ɨsutui-ŋu-tu?i _____

On the other hand, there is some evidence that we may not want to restrict na- to situations of subject identity. The following sentence, although somewhat contrived, produced three interpretations, one involving object-object identity:

(39) nɨɨ-k maŋa-j na-maga-mpɨ
I-k he-ob self-give-past
"I gave { him to myself / myself to him / him to him(self) }."

Using an interpretive approach to reflexivization, rather than a transformational one, na- could either be considered to be added in the lexicon (as an intransitivizing prefix) or be analysed as a simple pronoun, inserted into the tree like any other object and being prefixed to the verb by a general object-prefixation process (see section 2.224). Whatever the source, an interpretive rule would then interpret na- as referring to either the subject or an object in the sentence.

The example in (34d) above involves one of a small number of verbs which allow non-nominalized sentential clauses (see section 2.34). The embedded verb in such clauses is a finite one (or a participle used predicatively--see section 2.225), and the embedded subject is usually in the nominative case. A few examples have been obtained, however, where the subject is optionally in the oblique case (without changing the meaning) though the verb remains unnominalized.

(40) nɨɨ-k {maŋa-j / maŋ} paʔa-j mai-vɨɨ-ni
I-k {he-ob / he} tall-pres think-past[13]
"I thought he was tall."

One way to view such sentences would be to say the embedded subject has (optionally) been "raised" to an object position in the main clause, with no change in the form of the embedded verb. The reflexivization in (34d) is also optional; the sentence is synonymous with:

(41) nɨɨ-k paʔa-jɨ-an mai-vɨ
I-k tall-pres-I say-past
"I said I was tall."

If (34d) is an example of raising, then na- reflects coreference between the subject and surface object in the main clause. Without assuming a raising rule, one could simply expand the interpretive rule regarding na- to include coreference between subject and object, object and object, or subject and (embedded) subject.

The evidence for determining whether na- is a pronoun or not is not overwhelming. Since na- is obligatorily prefixed even to verbs which normally don't allow object prefixation, we may suspect that it is not a pronoun. However, the fact that its source (or reference) can be either in the matrix sentence or in an embedded clause (from which it possibly has been "raised" (example (34d) above)) might be somewhat easier to account for if na- is treated as a pronoun. Furthermore, like nouns in general, na- can be found as the prefixed object of a postposition, as in:

(42) na-vin?apa-aka-aŋ juna-mpɨ
self-behind-them-he put-past
"He put them down behind himself."

(where na- is the object of behind).

Reciprocal na- is also found in the form na-ma-, "together", (lit. with each other) as in the following examples:

(43) a. na-ma-?im nukwi-vɨɨ-m
recip-with-they run-past-pl
"They ran together."

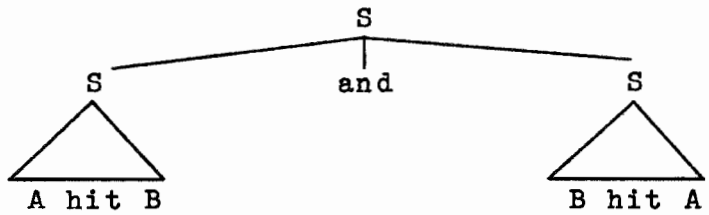
b. nɨ na-ma-ntua-um co-kwipa-tu?i-vɨ
I recip-with-toward-them head-hit-cause-past
"I bashed them together."

c. Ann Johni Margareti na-ma?a-k punikai-vɨ
Ann John(ob) Margaret(ob) recip-with-ob see-past
"Ann saw John and Margaret together."

Note that, in general, reciprocal interpretations with non-conjoined subjects are difficult to derive transformationally. It has been proposed that "A and B hit each

other" could derive from something like (44):

(44)



However this is impossible for a sentence like "They hit each other" or "The boys hit each other". Generating only the latter sentences directly would miss obvious generalizations. Therefore one could argue for deriving both types (conjoined or non-conjoined subjects) as directly generated by phrase structure rules, leaving to interpretive rules the task of stating that A and B, "the boys", etc. are reciprocal objects of the actions as well as subjects.

In Chemehuevi one could extend the argument to the reflexive use of na- as well; i.e., if the sentences in (43a-c) should be generated directly, then perhaps the sentences in (34) should be, too. This would support the interpretive approach outlined above (following example (39)).

In conclusion, then, I would tentatively propose that na- be analysed as a pronoun (with the features [+pro, +reflex]). All pronouns are insertable under any NP node; na-, however, must be restricted from insertion under a D since it cannot modify another noun, either as a possessor or as a demonstrative. Nor can it ever function as the subject of the main clause (such a reading will be excluded by the interpretive rule).

When the subject (or whatever na- is coreferential with) is semantically plural, na- is interpreted either reflexively or reciprocally (i.e. two readings are assigned it). Sentences with singular subjects "conjoined" with the suffix -gajaa will be given only a reflexive reading.

The reflexive possessor -vɨ

Any object noun which is possessed by a third person subject of the sentence is postfixed by a reflexive possessor pronoun morpheme, -vɨ, as in:

(45) maŋ kani-a-v punikai-vɨ
he house-ob-own see-past
"He saw his (own) house."

I will assume -vɨ is marked in the lexicon as:

$$\begin{bmatrix} +\text{pro} \\ +\text{reflex} \\ +[_{\text{Poss}}[\_\_\_]] \end{bmatrix}$$

(i.e. it can only be inserted as a possessive).

2.213 Inflection of Nouns

Case

The nominative case in Chemehuevi is unmarked; i.e. represented by the noun stem, including any absolutive suffixes on the root. This case is used for the (non-conjoined) subjects of matrix sentences, the subjects of embedded clauses with a small number of embedding verbs (see section 2.34), the (non-conjoined) objects of imperatives (both direct and indirect objects),[14] and nouns given in isolation.

The oblique case suffix is /-a/, for most nouns ending in vowels other than -a. The latter take the suffix /-ja/ in the oblique case. There is a borderline area of nouns ending in -ɨ which varies--some always take -a, some always take -ja, and a few can take either. In addition there are one or two non-productive oblique case suffixes; the small number of nouns which take them must be lexically marked. The only one of these suffixes which MM has given is /-na/ (exemplified below), though Harrington lists a couple others. The oblique case is used for all objects in non-imperative sentences (both direct and indirect, as long as no postposition is adjoined), for objects of postpositions when the latter are suffixed to a modifier of the noun rather than the noun itself, for possessor nouns ("genitive" case), and for subjects of embedded clauses.

Examples of oblique case endings are given in (46):

(46)	a.	/sapɨ/	saap	belly(nom)
		/sapɨ+a/	sapɨ	belly(ob)
	b.	/huna/	huun	badger(nom)
		/huna+ja/	huna-j	badger-ob
	c.	/tawa-/	taaw	tooth(nom)
		/tawa+$\left\{\begin{matrix}ja\\na\end{matrix}\right\}$/	tawa-n ~ tawa-j	tooth-ob

As suggested in section 0.3, all oblique forms of nouns will constitute separate lexical entries, with the following completely general lexical redundancy rule:

(47) $\begin{bmatrix} /\underline{x}/ \\ +N \end{bmatrix} \longleftrightarrow \begin{bmatrix} /\underline{x} + a/ \\ +_N[[N]+ob] \\ -Prefix \end{bmatrix}$

(The nouns which can take -na are probably too few to warrant a lexical rule. These forms as entries will have to be learned as 'new' unpredictable information.) A phonological rule will change -a [+ob] to -ja after a.

The bare noun stem (with no case marking) is used when prefixed to verbs, when the first member of a compound, or when postpositions are directly attached; however, if the postposition of which it's an object is attached instead to an accompanying demonstrative, the noun takes an oblique ending. (For behavior of absolutives, see section 2.211.)

Number

There are three productive plural markers in Chemehuevi; the suffixes /-wɨ/ and /-mɨ/ (limited to animate nouns), and reduplication. Some animate nouns use both reduplication and a suffix to form the plural. A few differentiate between dual and several by adding a suffix for two or more, and reduplicating in addition for three or more. In general, though, the plural markers do not differentiate dual from several. (Number agreement on verbs, however, does.)

Inanimate nouns, when they have plural forms at all, use reduplication. At this point, whether an inanimate noun pluralizes or not, seems to be idiosyncratic.

Examples of plural nouns are given in (48) below:

(48)	a.	tɨvac	wolf	tɨvaci-w	wolves
		/tɨvaci/		/tɨvaci-wɨ/	
	b.	poo?av	flea	poo?avi-m	fleas
		/poo?avi/		/poo?avi-mɨ/	
	c.	mo?ov	hand	mo-mo?ov	hands
		/mo?ovɨ/		/CV-mo?ovɨ/	
	d.	maapɨ̇c	old lady	ma-maapɨ̇ci-w	old ladies
		/maapɨ̇ci/		/CV-maapɨ̇ci-wɨ/	
	e.	tuuk	mountain lion	tuku-w	mountain lions
		/tuku/		/tuku-w̆ɨ/	
	f.	wii	knife	wii	knives
		/wihi/		/wihi-Ø/	
	g.	aipac	boy	aipaci-w	(two) boys
		/aipaci/		a-?aipaci-w	(sev) boys
				/CV-aipaci-wɨ/	

Some nouns lose an absolutive suffix before adding the plural suffix, as in (49) below:

(49)	a.	taw?a-c	man	tawa-m	men
		/taw?a-ci/		/tawa-mɨ/	

(Note that man idiosyncratically loses its medial consonant glottalization as well. This simply has to be lexically marked.)

	b.	aiva-c	youth	aiva-w	(two) youths
		/aiva-ci/		a-?aiva-w	(sev) youths
				/CV-aiva-wɨ/	

For idiosyncracies in reduplication, see section 1.33. Note that all vowel-initial nouns are assumed to begin with glottal stop (or have one added) before reduplication.

Plural nouns in the oblique case add the suffix -a after the plural suffix. Examples:

(50) a. tɨvaci-wɨ <u>wolves (oblique)</u>

/tɨvaci-wɨ-a/

b. poo?avi-mɨ <u>fleas (oblique)</u>

/poo?avi-mɨ-a/

Again, plural forms in the lexicon will not contribute much new information as independent entries--most of their specifications will be redundantly given in the rules below:

(51) M: a. $\begin{bmatrix} /\underline{x}/ \\ +N \\ +anim \end{bmatrix} \longleftrightarrow \begin{bmatrix} /\underline{x} + wɨ/ \\ +_N[[N] + pl] \\ +anim \end{bmatrix}$

b. $\begin{bmatrix} /\underline{x}/ \\ +N \\ +anim \end{bmatrix} \longleftrightarrow \begin{bmatrix} /\underline{x} + mɨ/ \\ +_N[[N] + pl] \\ +anim \end{bmatrix}$

c. $\begin{bmatrix} /\underline{x}/ \\ +N \end{bmatrix} \longleftrightarrow \begin{bmatrix} /\underline{x}/ \\ +_N[[N] + pl] \end{bmatrix}$

d. $\begin{bmatrix} /\underline{x}/ \\ \\ +N \end{bmatrix} \longleftrightarrow \begin{bmatrix} /\ \underset{[+redup]}{CV} + {}_N[\underline{x}]/ \\ +_N[[N] + pl] \end{bmatrix}$

(52) S: a. $\begin{bmatrix} +N \\ +sing \end{bmatrix} \longleftrightarrow \begin{bmatrix} +_N[[N] + pl] \\ -sing \end{bmatrix}$

b. $\begin{bmatrix} +N \\ +sing \end{bmatrix} \longleftrightarrow \begin{bmatrix} +_N[[N] + pl] \\ +sev \end{bmatrix}$

(See section 0.4 for explanation of the features [sing] and [sev].)

2.214 Modifiers

Demonstratives

As stated in section 2.212 above all third-person personal pronouns are also demonstratives, and may be used as modifiers of other (nonpronoun) nouns. As such they either precede or follow the noun they modify, or both for added emphasis. Examples:

(53) { iŋ aipac / aipac iŋ / iŋ aipac iŋ } "This boy"

Demonstratives agree with their head nouns in case as well as number and animacy:

(54) a. maŋa-j aipaci
that-ob boy(ob) "That boy"

b. ic wii
this knife "{ This knife / These knives }"

c. umɨ puusi-wɨ
those(ob) cat-pl(ob) "Those cats"

Demonstratives as modifiers can never postfix to anything. In post-nominal position they have certain peculiarities, however they behave as separate words in two crucial tests: (1) enclitics, which are absolutely constrained to appear on the first "word" in the sentence, always precede post-nominal demonstratives, i.e. attach to the head noun. In general enclitics come last in a series of affixes

and postfixes. (2) Phonological rules, the most manifest being final vowel deletion, treat demonstratives as separate words--e.g. the final vowel in aipaci-, boy, is protected by any affix, postfix, or enclitic, but not by a demonstrative: aipac aŋ, "that boy". Two things however make demonstratives appear unusually affix-like: (1) When post-nominal, and never when pre-nominal, these forms lose their initial consonants (most notably, m):

(55)	?iŋ aipac	"this boy"	but	aipac iŋ	"this boy"
	maŋ aipac	"that boy"		aipac {aŋ, *maŋ}	"that boy"
	?uŋ aipac	"that boy [invisible]"		aipac uŋ	"that boy [invisible]"

(Word-initial ? before vowel is ignored everywhere else in this paper.) Confusion with bound pronoun forms is eliminated in the inanimate series:

(56)	full pro:	ic	post-nom dem:	N ic	postfix-pro: -ik
		mar		N ar	-ak
		ur		N ur	-uk

Whereas m -→ ∅ is not an unknown process in Chemehuevi, elsewhere in the language it is sporadic and frozen. (2) Noun + demonstrative is the only exception to a word order constraint requiring subject poftfix pronouns to attach to the first word in the sentence (see section 2.4). Bound subjects attach to a post-nominal demonstrative rather than to the noun itself, e.g.

(57) a. aipaci aŋa-ja-n kwipa-vɨ
boy(ob) that-ob-I hit-past "I hit that boy."

b. *aipaci-a-n aŋa-j kwipa-vɨ

Nonetheless, since I consider the vowel-deletion rule the most crucial argument I choose to call post-nominal demonstratives separate words, making the appropriate modifications on the subject constraint, instead.

Adjectives

Adjectives are essentially equivalent to verbs; as modifiers they, like all other verbs can appear in participle form. They precede or follow the head noun, with which they agree in case and number:

(58) a. {pa?a-nẗ-m aipac / aipac pa?a-nẗ-m} nukwi-j

{tall-ptc-anim boy / boy tall-ptc-anim} run-pres

"The tall boy is running."

b. aipaci-w pa?a-ka-r̈-m nukwi-ka-j̈-?m̈
boy-pl tall-sev-ptc-anim run-sev-pres-pl
"The tall boys are running."

c. n̈ aŋkaga-r̈ wihi puni-v̈
I red-ptc(ob) knife(ob) look-past
"I looked at the red knife."

Adjectives differ from nonadjective verbs in several respects:

(i) The verb suffix /-?um̈/ (which loses its ? after the participle ending, allowing the u to assimilate and thus delete) is primarily a [+anim] agreement marker. For nonadjective verbs [+V, -Adj], whether finite or participles, the suffix is added only if the subject (or head noun) is in addition [-sing]. For adjectives [+V, +Adj], the same is true when

they're used as finite verbs. However when adjectives are in participle form they add -ʔumɨ for any animate noun, whether singular or plural:

(59) a. maŋ {tɨka-r / *tɨka-rɨ-m} aŋ saaronci
he {eat-ptc / *eat-ptc-anim} that one beer(ob)
hivi-sua-ŋ
drink-finish-mom
"The eating one drank up the beer."
(tɨka- = [-Adj])

b. maŋ {paʔa-ntɨ-m / *paʔa-nt} aŋ saaronci
he {tall-ptc-anim / *tall-ptc} that one beer(ob)
hivi-sua-ŋ
drink-finish-mom
"The tall one drank up the beer."
(paʔa- = [+Adj])

c. maŋ {paʔa-j / *paʔa-jɨ-ʔɨm}
he {tall-pres / *tall-pres-anim}
"He [that one] is tall."

(For further examples of -ʔumɨ on finite verbs, see section 2.226 on verb agreement.) The above holds as well for participles used predicatively--see section 2.225.

(ii) Nonadjective verbs must cooccur with a demonstrative when modifying a noun; adjectives need not:

(60) {*nukwi-c / nukwi-c aŋ} aipac paʔa-j
{*run-ptc / run-ptc that} boy tall-pres "That running boy is tall."

(iii) When used predicatively (see section 2.225), participialized nonadjectives require the enclitic K in the sentence, participialized adjectives do not.

Participle forms may be used as nouns themselves, nonadjectives however require a cooccurring demonstrative:

(61) a. {*nukwi-c / nukwi-c aŋ} wɨ?iku-vɨ

{*run-ptc / run-ptc that} fall-past "The running one fell."

b. pa?a-ntɨ-m wɨ?iku-vɨ

tall-ptc-anim fall-past "The tall one fell."

(For ordering of demonstratives with respect to participles, see section 2.4 on Word Order.)

Possessives

Possessive modifiers are always in the oblique case and are unaffected by the case of the possessed noun. These modifiers may be common nouns (which can themselves be modified), proper nouns or pronouns. In the first two instances the possessor must precede the head noun, as well as any adjectives (participles) modifying the head. If the possessor is a pronoun it has two possible positions: in full form it precedes the head and all other modifiers, in postfix form it attaches directly to the head (never to another modifier). Pronouns may occur concurrently in both positions (if coreferential) and postfix pronouns may cooccur with common and proper noun possessors (if coreferential). Examples:

(62) a. { nɨɨni tuu / tua-n / nɨɨni tua-n } iva-ni?i-j

my son-my here-contin-pres

"My son is here."

b. owasiaka-r pampɨn?i-iŋ kac iva-wa?

yellow-ptc pot - his not here-neg

iŋa-j owasiaka-r pampɨn? kac iva-wa?

his-ob yellow-ptc pot not here-neg

"His yellow pot is gone."

c. mar pampɨn?i-n hɨpɨki-j

that pot-my holey-pres

"That pot of mine has a hole."

d. pavi-a-n naro?o-oŋ aŋkaga-j

brother-ob-my shirt-his red-pres

"My brother's shirt is red."

e. nɨɨ-k { wihi-a-uŋ / uŋa-j wihi } puni-kai-vɨ

I-K { knife-ob-his / his-ob knife(ob) } see-result-past

"I saw his knife."

f. nɨɨ-k maŋa-j piso?oci puni-kai-vɨ

I-K him-ob child(ob) see-result-past

"I saw { his child / that child }."

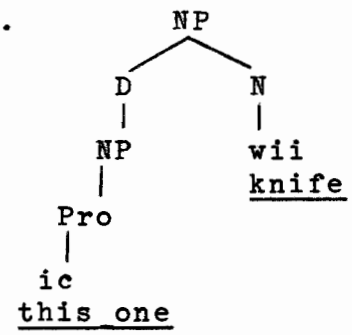
Note that when the head noun is also oblique and agrees in number and animacy with the possessor, the sentence is ambiguous. (For further discussion see section 2.4.)

Some transformational analyses of possessives derive strings like "John's shoe" from something like $_{NP}$[shoe $_{S}$[John has shoe]]. Since I am dispensing with deletion rules I will generate possessors directly, using a Poss

node under the D node. Demonstratives in contrast will originate as NPs under the D node. The relevant Phrase Structure rule is given in (63), with structures for demonstratives and possession given in (64):

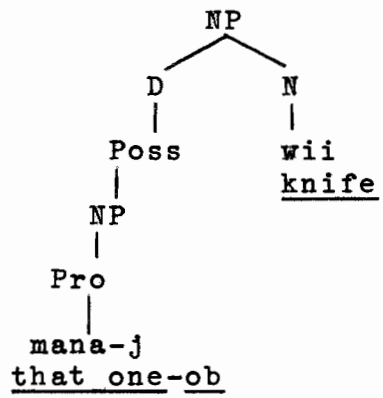
(63) $D \rightarrow \begin{Bmatrix} NP \\ Poss \end{Bmatrix}$

(64) a.



"this knife"

b.



"his knife"

As in other Uto-Aztecan languages there are certain restrictions on what kinds of common nouns may be possessed. In section 2.211 nouns which normally <u>must</u> be possessed were discussed, such as body parts and kin-terms. Animals cannot be directly possessed without first being compounded with /-puŋku/ <u>pet</u>. With the verb /-gai/ <u>have</u> (which is bound), <u>pet</u> is attached as a verb prefix. Examples:

(65) a. nɨɨni tuku-puŋku-n
<u>my</u> <u>mountain lion</u>-<u>pet</u>-<u>my</u>
"my $\begin{Bmatrix} \text{mountain lion} \\ \text{cat} \end{Bmatrix}$"

b. nɨɨ-k waha-ku-mɨ wa?arovi-mɨ
<u>I</u>-<u>K</u> <u>two</u>-<u>ob</u>-<u>anim(ob)</u> <u>horse</u>-<u>pl(ob)</u>
puŋku-wɨ-ga-nt
<u>pet</u>-<u>pl</u>-<u>have</u>-<u>ptc</u>
"I have two horses."

Plants are generally not possessable unless compounded with /-ɨgapɨ/ plant (cultivated, not wild). An exception is /hawi/ corn, perhaps because it is understood to be "cultivated".

In contrast to English, which uses possessive constructions for a large variety of things other than ownership, Chemehuevi seems to use these constructions more restrictively. For example possessor nouns are not used with bare nouns to mean the "maker" of the object, thus to say "Her coffee is always bitter" one must say:

(66) {kuupi-cu-na-aŋ / *kuupi-aŋ} utusamp mohara-t

{coffee-make-ptc-she / *coffee-her} always bitter-ptc

"The coffee she makes is always bitter."

2.22 Verb Phrases

2.221 Derivation of Verbs

Verb stems in Chemehuevi can either be monomorphemic or derived from other lexical categories by the addition of various suffixes. Most of the former are roots which are exclusively verbal, though there are a few sets of roots which have more than one lexical category assigned to them, most notably the post-positions (which with tense-aspect markers are verbs, as bare stems are postpositions). A small number of verb roots are also noun roots, e.g. taŋa [+N] knee, taŋa [+V] kick; similarly a number of adverbs when suffixed with tense-aspect markers become verbs: kwaɨ [+Adv] away, kwaɨ [+V] go away.

Verb stems derived in part from nouns include various productive types of compounds (for example, most verbs allow their object to be prefixed--see section 2.224 below). They also include nouns suffixed with bound morphemes, which on the basis of their semantics could be viewed as compounds too. (Synchronically the question of whether a morpheme is a stem or affix is probably not entirely decidable, especially for those cases where diachronically something is changing from one to the other. In my analysis I simply use [+bnd] for anything which cannot appear alone in a word. The features [prefix] and [suffix] only describe the nature of the junctures and are not intended to imply that a morpheme is not a "stem".)

Examples of verb stems formed by compounding to nouns are given in (67) below:

(67) a. kwipa- "hit"; puŋku-kwipa- "hit a dog"
<u>dog</u>-<u>hit</u>
(= puŋkuci kwipa-)

b. punikai- "see"; nɨwɨ-punikai- "see a person"
<u>person</u>-<u>see</u>
(= nɨwɨ punikai-)

There is a small class of nouns which are frequently used in capacities other than (or in addition to) direct object, which have special shortened forms for these prefixes (in some cases the forms are suppletive, e.g. /nampa/ <u>foot</u>; /ta-/ <u>foot</u>-(prefix)). Obviously some of these are or will become candidates for relexicalization as alternations without the prefix drop out. Examples of this class:

(68) a. pa-hoora- "dig a well" < /paa/ "water"
/hoora-/ "dig"

b. ma-nujukwa- "shove" < /mo?ovɨ/ "hand"
/nujukwa-/ "move"

c. nɨ-mpo?o-tui "teach school" < /nɨwɨ/ "person"
/po?o-tui-/ "cause to write"

The regular long prefix forms may be used productively with verbs with which these nouns are not frequently associated, compare (68c) with (67b) above.

The quasi-compound suffixes (bound verbs) are illustrated in (69):

(69) a. /-gai/ <u>be</u>, <u>have</u> (= -gaa before a small number of suffixes, e.g. -tɨ <u>ptc</u>. See P Rule 15 in section 1.33.)

e.g. kani-gai- "have a house"
<u>house</u>-<u>have</u>

ha?ɨtɨ-na?incici-gai- "be a good girl"
<u>good</u> -<u>girl</u> -<u>be</u>

b. /-tu ~ -tu?i/ <u>make</u> (These may be two separate suffixes, though they vary freely when suffixed to nouns. -tu?i is used as a causative suffix with verb stems and then does not alternate with -tu.)

e.g. wihi-{cu- / cu?i-}[15] "make a knife"
<u>knife</u>-<u>make</u>

c. /-tu?a/ <u>become</u> (Also used with verb (adjective) stems to mean <u>turn X</u>.)

e.g. wa?arovi-cu?a- "become a horse"
<u>horse</u> -<u>become</u>

By and large adjectives are equivalent to verbs in Chemehuevi, i.e. their stems take normal tense-aspect

suffixes. The subclass of adjective stems comprising color terms[16] is somewhat of an exception in that they must be first suffixed either with -tu?a <u>become</u> or a special stative suffix -ka, used only with this class apparently. When augmented in this manner the resulting stem behaves like any other verb with respect to tense-aspect markers. Color roots appear without these suffixes when used in compounds, e.g. aŋka-gan <u>red-house</u>.

2.222 Features on Stems

Verb stems in Chemehuevi are inherently marked in the lexicon for transitivity (cooccurrence with NP arguments other than the subject) and aspect ("momentaneousness"). The former is incorporated in the overall syntactic cooccurrence feature assigned to the verb, e.g. $+_{VP}[(\{^{PP}_{Adv}\})^*\ \_\_\_]$ for intransitive verbs (e.g. nukwi- <u>run</u>) and $+_{VP}[(\{^{PP}_{Adv}\})^*NP\_\_\_]$ or $+_{VP}[(\{^{PP}_{Adv}\})^*\ NP\ NP\ \_\_\_]$ for transitive verbs with one and two objects respectively (e.g. parɨgi- <u>wash</u>, and maga- <u>give</u>). Verbs which allow elliptical objects, such as tɨka- <u>eat</u>, will simply have those NPs in parentheses. In contrast, there are a small number of verbs with both transitive and intransitive meanings where the latter is <u>not</u> ellipsis of the former, e.g. kwipa- which means to <u>hit</u> when with an object but <u>fall</u> when without. For these two separate lexical entries will be given, as in (70):

(70) a. $\left[\begin{array}{l} /\text{kwipa}/ \\ +_{VP}[(\left\{\begin{array}{c}PP\\Adv\end{array}\right\})^{*}\ NP\ \_\_\_] \\ \underline{\text{hit}} \end{array}\right]$ b. $\left[\begin{array}{l} /\text{kwipa}/ \\ +_{VP}[(\left\{\begin{array}{c}PP\\Adv\end{array}\right\})^{*}\ \_\_\_] \\ \underline{\text{fall}} \end{array}\right]$

(Since both the meanings and the syntactic environments differ, they may as well be treated as separate (though homophonous) verbs.)

The aspect "momentaneous" is a feature on each verb stem which essentially dictates what other tense-aspect markers the verb may cooccur with. (Also which subordinating suffixes they take.) Semantically "momentaneous" verbs are usually inceptive or are accomplished instantaneously. A few stems may be used with either aspectual meaning, and will be specified [*mom].

Examples of these specifications:

(71) a. t̪ka- [-mom] — <u>eat</u>

b. t̪rawi?i- [+mom] — <u>dash off</u>

c. kw̪h̪- [*mom] — <u>catch</u>

Portions of the paradigms which are affected by the [mom] feature are as follows (the suffixes referred to will be discussed in turn below):

A. [+mom] verbs cannot take the present tense suffix, /-j̪/. Instead [+mom] verbs may take a zero present tense suffix which [-mom] (or "durative") verbs may not take. (This results phonetically in the loss of the stem-final vowel; see section 1.33 on phonology.) E.g.:

(72) a. maŋ {tɨrawi? / *tɨrawi?i-j}

he {dash off -Ø / *dash off -pres} "He {dashes off. / *is dashing off.}"

b. maŋ {*nukw / nukwi-j}

he {*run -Ø / run -pres} "He runs/is running."

B. [+mom] verbs cannot take the aspect (or quasi-aspect) markers /-ni?i/ (continuous activity), or /-karɨ/, sit (while Vb-ing). E.g.:

(73) maŋ {*tɨrawi?i-ni?i-vɨ / nukwi-ni?i-vɨ}

he {*dash off -contin -past / run -contin -past}

"He {*was dashing off. / was running.}"

C. [+mom] verb stems take a zero suffix in the imperative (with same phonetic results as above). [-mom] verb stems add /-ŋu/ in the imperative (see section 2.26 on imperatives). E.g.:

(74) a. {tɨrawi?i-? / *tɨrawi?i-ŋu-?}

{dash off -you / *dash off -imp -you} "Dash off!"

b. {*nukwi-? / nukwi-ŋu-?}

{*run -you / run -imp -you} "Run!"

D. [-mom] verbs form subordinate gerunds in /-gai/; [+mom] verbs in /-ci/. E.g.:

(75) a. {tirawi?i-c / *tɨrawi?i-ga} "dashing off(?)/having dashed off"

b. {*nukwi-c / nukwi-ga} "running"

2.223 Verb Suffixes

Suffixes may be added to verb stems to accomplish the following:

a) change the inherent specification (transitivity, etc.)

b) mark aspects, tenses, voice and "mood"

c) mark number agreement

The inherent specification of a verb stem may be switched by adding suffixes like /-ŋkɨ/ (transitivizer or benefactive) or /-tuʔi/, cause, both of which allow the addition of one object (oblique case with no post-positions) to whatever number already may cooccur with the verb. (The passive suffix /-tɨɨ/ could be included here as an intransitivizer, but is discussed separately in section 2.25.)

Examples:

(76) ŋkɨ: a. nɨɨ-k mavacigi-vɨ
I -K clap-past
"I clapped."

nɨɨ-k maŋa-j mavaciki-ŋkɨ-vɨ
I-K him-ob slap - tran - past
"I slapped him."

(k/g alternation has to do with change in momentaneousness.)

b. maŋ puusi-cu kijasui-ka
he cat-at smile-result
"He's smiling at/toward the cat."

maŋ puusi kijasui-ŋkɨ-ka
he cat (ob) smile-tran-result
"He's smiling at the cat."

-tu?i: c. nɨɨ-k nukwi-vɨ
I-K run-past
"I ran."

nɨɨ-k maŋa-j nukwi-tu?i-vɨ
I-K he-ob run-cause-past
"I made him run."

d. nɨɨ-k Johni tukuavi maga-vɨ
I-K John(ob) meat(ob) give-past
"I gave John meat."

nɨɨ-k Johni puusi tukuavi
I-K John(ob) cat(ob) meat(ob)

maga-tu?i-vɨ
give-cause-past
"I made John give the cat meat."

The feature [+/- momentaneous] may be changed by modifying the stem in the following ways:

(77) 1) internal stem change:

Some verbs "spirantize" some of their internal consonants to form the durative ([-mom]) counterpart of their stem.

Examples:

	[-mom]	[+mom]
a.	mavika-	mapika-
	feel	touch
b.	ijavaga-	ijapaka-
	be afraid	get a scare

2) reduplication:

Verbs such as karɨ- sit; wɨnɨ- stand; havi- lie; (as well as the suppletive forms for plural subject) form the [+mom] counterparts by reduplicating the first syllable:

	[-mom]	[+mom]
a.	karɨ-	ka-karɨ
	sit [sing]	sit down [sing]
b.	jɨwi	jɨ-jɨwi
	sit [pl]	sit down [pl]

3) suffix /-ŋu/:

A large number of verbs regularly form their momentaneous counterparts by adding the suffix -ŋu:

a.	tavi?i-j	tavi?i-ŋu-
	hit-pres	"start to hit"
b.	mucu-j	mucu-ŋu-
	be strong-pres	"get strong"

4) suffix /-ku/:

Several verbs become momentaneous by suffixing -ku:

a.	wɨ?i-vɨ	wɨ?i-ku-vɨ
	fall-past	fall-mom-past
	"was falling"	"fell"
b.	puca-ka	puca-ku-ka
	be full-result(ative)	"has filled-result"

Verb stems which are related by one of the above suffixes will be separate lexical entries, their redundancy being stated in lexical rules such as the one below (for -ŋu):

(78) $$\begin{bmatrix} /\underline{x}/ \\ +V \\ -mom \end{bmatrix} \longleftrightarrow \begin{bmatrix} /\underline{x} + ŋu/ \\ +_V[[V] + mom] \\ +mom \end{bmatrix}$$

All the constraints on momentaneous verbs noted above apply to verbs with momentaneous suffixes.

In addition to momentaneousness, verbs can be marked for several other aspects. Some verb-verb compounds will be included in this category when the second member has aspectual

rather than coordinate significance. The following list gives examples and illustrations of the various aspectual suffixes, and tenses with which they cooccur:

(79) a. (continuative) /-ni?i/ (cooccurs with past -vɨɨ, pres -jɨ, fut -vaa; results in durative verb)

e.g.

tɨka- <u>eat</u>	tɨka-ni?i- "be eating while doing something else"
jawi- <u>carry</u>	jawi-ni?i- "hold"
uni- <u>be</u> (e.g. location)	uni-ni?i- "belong (somewhere)"

b. (iterative) reduplication of first syllable, together with glottalization of second syllable; i.e. formation of the iterative could be viewed as: $CV_1CV_2 \rightarrow CV_1\text{-}CV_1CV_2\text{-}?V_2$. (cooccurs with whatever tenses the stem does, i.e. does not affect [mom] feature)

e.g.

puni- <u>look</u>	pu-mpuni?i- "look repeatedly"
ukwi- <u>smell</u>	u-?ukwi?i- "sniff around"

c. (perfective) /-ma?aku/ <u>finish</u> (cooccurs with past -vɨɨ, perfect (enclitic) -caa. Changes aspect to [+mom]; can't take pres -jɨ or imp -ŋu.)

e.g.

nɨɨ-ca tɨka-ma?ak
<u>I-perf eat-finish</u> "I have finished eating."

nɨ tɨka-ma?aku-vɨ
<u>I eat-finish-past</u> "I finished eating."

d. (perfective) /-maɨ/ <u>finish</u> (cooccurs with past -vɨɨ.)

e.g.

nɨ tɨka-maɨ-gi-ga
<u>I eat-finish-come-pres</u> "I came to finish eating."

nɨ kac tɨka-maɨ-vɨɨ-wa
I not eat-finish-past-neg "I didn't finish eating."

e. (perfective) /-kai ~ -kwai ~ -ŋkwai/ have -en
(cooccurs with pres -jɨ, past -vɨɨ, pres Ø)

e.g.

mava-aka-aŋ wacɨ-ŋkwa
there-it-he put-perf "He has put it there."

f. (resultative) /-kai/ (cooccurs with Ø pres, past vɨɨ, pres -jɨ, past -mpɨɨ, fut -vaa, -mpaa)

e.g.

nɨ puni-vɨ
I look-past
"I looked."

nɨ puni-kai-vɨ
I look-result-past
"I saw."

g. (cessative) /-maupa/ stop (does not take -ŋu in imper; makes verb [+mom])

e.g.

kac tɨka-maupa-?ap
not eat-stop-neg "Don't stop eating!"

tɨka-maupa-ka-j
eat-stop-pl-you[pl imp] "Stop eating (to several)!"

h. (usitative) /-mi/ used to (cooccurs with pres -jɨ, past -mpɨɨ, can't be used in future)

e.g.

utusampa-n tɨka-mi-mpɨ
always -I eat-used to-past "I always used to eat."

i. (continuative) /-karɨ/ sit (with durative verbs only)

e.g.

nɨ puni-karɨ-j aipaci
I look-sit-pres boy(ob) "I watch the boy."

(Similarly with verbs to stand, lie.)

j. (motionals) /-gi/ come to (-gi-voro for plural subject); /-wa?i/ go to (-voro for plural subject).

e.g.

hivi-gi-mpaa-n
drink-come to-fut-I "I will come to drink."

k. (others) /-maga/ try to

/-suawagai/ want to

/-musu/ be unable to; try in vain to

/-tɨtu?ani/ seem to

/-tɨvicu/ ask to; want to

e.g.

nɨ tɨka-suawagai-vɨ
I eat-want - past "I wanted to eat."

"Tenses" are temporal suffixes (or enclitics) which can cooccur with other suffixes but not with each other. They in general follow aspect suffixes and precede postfix pronouns, nominal and participle suffixes, etc. The following list includes all such suffixes in Chemehuevi:

(80) /-jɨ/ present

/-vɨɨ/ past

/-mpɨɨ/ past

/-vaa/ future

/-mpaa/ future

/-ka/ present/past

/-caa/ perfect (enclitic)

/-pɨ-gai/ remote past

Ø present

Which of these suffixes a verb can take is by and large determined by the momentaneous feature on the stem. E.g. /-jɨ/ present does not attach to [+mom] stems. In the case of the two past suffixes /-vɨɨ/ and /-mpɨɨ/, the determination is partly phonological and partly semantic. Some morphemes require one or the other--a stem's requirement may be overridden by what an intervening suffix allows. In other cases, e.g. for the entire class of adjectives, the choice of past tense reflects a meaning change: Adj-vɨ means "was Adj", Adj-mpɨ means "got Adj".

The following suffixes could be classified as "modals", signifying unreal action, or action contrary to fact:

(81) a. /-guu/ <u>would</u>

e.g. nɨ tɨka-gu
<u>I</u> <u>eat</u>-<u>would</u> "I would eat."

e.g. tɨrawi?i-guu-n ɨmi-gai-j
<u>dash off</u>-<u>would</u>-<u>I</u> <u>you</u>-<u>be</u>-<u>subord</u>
"If I were you I would run."

b. /-guu-pɨ/ <u>should</u>

e.g. nɨ tɨka-guup
<u>I</u> <u>eat</u>-<u>should</u> "I should eat."

c. /-ŋkuu/ <u>could</u>

e.g. nɨ tɨka-ŋku
<u>I</u> <u>eat</u>-<u>could</u> "I could eat."

e.g. paa-gaa-ku-n navakɨ-ŋku
<u>water</u>-<u>be</u>-<u>subord</u>-<u>I</u> <u>swim</u>-<u>could</u>
"If there were water I could swim."

d. /-ŋkuu-pɨ/ could

e.g. navakɨ-ŋkuupɨ-gaisapa-ʔaŋ, kac uni-suawaga
swim-could-though-he not do-want
"He could swim but he doesn't want to."

These suffixes occur with no tenses.

As suggested earlier, entire verb paradigms for each verb stem will be entered in the lexicon. By "paradigm" I intend to include the various combinations of tenses and aspects listed above; this of course makes each paradigm somewhat larger than paradigms for English, for example; nevertheless the suffixes above form a closed set and are still quite manageable. As usual, lexical rules will capture the generalizations that [+mom] verbs do not have forms with -ŋu, -jɨ, etc.

If one were to try to include forms with prefixed objects in the paradigm, I feel the result would be unmanagable, mainly because the set of nouns which may be prefixed is open, and for each possible object one would have to in theory relist the entire paradigm for that verb. Jackendoff suggests listing compounds in the lexicon for English, and for the less productive types of compounds I would agree for Chemehuevi. Object-prefixation however strikes me as somewhat of a different phenomenon, and in the section below I will discuss an alternative to lexicalizing this process.

2.224 Object Prefixation

As illustrated in (67) above, most verbs may optionally prefix their object. The fact that a noun is prefixed is

evidenced by shifting of stress on the verb, by mutation of the verb-initial consonant (with some nouns), by changes in the position of postfixed subject (see section 2.4 on Word Order) and for most nouns, loss of the absolutive suffix.

For verbs which are normally non-bound (i.e. which don't require object-prefixation) inflectional markers, such as plural suffixes or oblique case endings, are omitted from the noun. If an object is plural, the tendency is not to prefix it unless the fact that it's plural is otherwise overtly shown in the sentence (independent modifiers exhibiting plural agreement for example, or the inclusion of the plural-object suffix /-tu/ on the verb--see section 2.226 on agreement).

Verbs which require object-prefixation, e.g. postpositions and the quasi-compounds in (69) above, do cooccur with plural suffixes on the noun (though oblique markers are still omitted):

(82) a. nɨɨ-k waha-ku-mɨ puŋku-wɨ-gaa-nt
I -K two-ob-pl(ob) dog-pl-have-habit
"I have two dogs."

c.f. nɨɨ-k waha-ku-mɨ { puŋku-ci-wɨ kwipa-vɨ / *puŋku-(ci)-wɨ-kwipa-vɨ }
I -K two-ob-pl(ob) dog-abs-pl(ob) hit-past
"I hit two dogs."

Some verb-object combinations do not occur in prefixed form, e.g.

(83) maŋ puŋku-ci kɨʔi-vɨ
he dog-abs(ob) bite-past "He bit the dog."
*maŋ puŋku-kɨʔi-vɨ

It may be that possible combinations (with prefixed objects) are determined by such things as the frequency or plausibility of the semantic association (as is true for compounds in general).

There are two alternatives to listing each potential object-verb compounds in the lexicon. Jackendoff actually suggests that for productive types of compounds his redundancy rules might be given generative power. Thus one could derive verbs with prefixed objects by a rule something like the following:

(84) $$\begin{bmatrix} /\underline{x}/ \\ +N \end{bmatrix} + \begin{bmatrix} /\underline{y}/ \\ +V \end{bmatrix} \longrightarrow \begin{bmatrix} /\underline{x} + \underline{y}/ \\ +_V[[N] + [V]] \end{bmatrix}$$

However, instances where the object is itself modified by a separate word in the sentence, as in (82a) above, would be awkward to handle if the object is attached in the lexicon (generatively or not). The second alternative is simply to list every noun in the lexicon in both prefix and non-prefix form, as was suggested for nouns with absolutives in section 2.211. Again, the cost can be minimized by a lexical redundancy rule such as:

(85) $$\begin{bmatrix} /\underline{x}/ \\ +N \\ -\text{prefix} \end{bmatrix} \longrightarrow \begin{bmatrix} /\underline{x}/ \\ +_N[[N] + \text{ob}] \\ +\text{prefix} \end{bmatrix}$$

Prefix forms are always interpreted as oblique (e.g. for the purposes of modifier agreement), though they never occur with an overt oblique case marker.

Either form of a noun can be inserted under any N node. (The two forms of the same noun will not cooccur in a verb

phrase.) If a [+prefix] noun is positioned immediately before the verb originally or by a permutation transformation (see section 2.4) a compound is created. If a [+prefix] noun is left stranded in the sentence, or a verb requiring object-prefixation ends up with no [+prefix] object to its left, the sentence will be discarded.

2.225 The Enclitic "K" and the Habitual

Semantically there is one other aspect which shows up frequently in Chemehuevi, namely the "habitual" which behaves however quite differently syntactically from the suffixes discussed in 2.223. The habitual suffix is actually the active participle ending /-tɨ/, described in section 2.33 below.[17] Examples of -tɨ (~ -rɨ ~ -cɨ ~ -ntɨ) with various tenses are given in (86); with no tense suffix the verb translates in the present:

(86) a. nɨɨ-k nukwi-c
I-K run-ptc "I run."

b. Johni-k utusamp mucu-ntɨ-m, aɨvi-aŋ
John-K always strong-ptc-anim, now-he
jum?iga-j
weak-pres
"John is always strong, (but) right now he's weak."

c. tɨka-vaa-ntɨ-k nɨ
eat-fut-ptc-K I "I will eat."

d. nɨɨ-k utusamp tɨka-mi-nt
I-K always eat-usit-ptc
"I used to eat all the time."

e. nɨɨ-k pawa-pɨgaa-nt

I-K swell-rem past-ptc

"I used to swell (e.g. from liver disease)."

The habitual (participle) suffix differs from true tense-aspect suffixes in that it requires, for nonadjective verbs, the enclitic -uk[18] to appear in the sentence, as in the following example:

(87) {nɨɨ-k / *nɨ} tɨka-r

I-K eat-ptc "I eat."

With adjective-verbs -uk is optional:[19]

(88) {aipac / aipaci-k} pa?a-ntɨ-m

{boy / boy-K} tall-ptc-anim

For this reason -uk (which Harrington associated with the third-person inanimate invisible postfix pronoun, but which I will refer to simply as "K" for these usages) might be related to some kind of copular verb. Indeed it replaces the verb be in predicate nominative constructions such as:

(89) {nɨɨ-k / *nɨ} nainc

I-K girl "I am a girl."

K also seems to be used in focusing the subject of the sentence, such as in cleft constructions (involving the subject: "It was John who cut the wood") or in responses to questions like "Who caught the fish?" (For further discussion of K see section 2.4.) However K also cooccurs with normal finite verbs. In such cases it generally seems to contribute very little semantically; the subject may be

somewhat focused, but not as strongly as in the cleft sentences:

(90) $\left\{\begin{matrix} \text{nɨ} \\ \text{nɨɨ-k} \end{matrix}\right\}$ nukwi-j

I-(K) run-pres "I am running."

With K attached to the first word in the sentence, the participle verb form is the only type of predicate which permits the subject to occur in non-initial position (first in the sentence, or postfixed to the first word; see section 2.4 on word order). It is also the only verb form which, like predicate nominatives, does not allow its subject to postfix to it, thus:

(91) a. nukwi-jɨ-aŋ

run-pres-he "He is running."

b. pagɨci-ja-uk maŋ tɨka-r

fish-ob-K he eat-ptc "He eats fish."

but

c. *pagɨci-ja-uk tɨka-rɨ-aŋ

fish-ob-K eat-ptc-he

As I will suggest in section 2.33 these verbs might simply be thought of as somewhat like headless relatives (though not entirely equivalent to them--see footnote 19 above, noting that as main predicates, even nonadjective participles do not cooccur with demonstrative pronouns). I will still call them participles then, allowing participles to be inserted directly under the VP node. Participles of nonadjective verbs are lexically marked as requiring cooccurrence with K (which I will generate optionally in the VP) when they

are used predicatively (i.e. when directly dominated by a VP node).

2.226 Verb Agreement

Verbs in Chemehuevi agree in number with their subjects, and optionally with their objects. There are two suffixes which refer to the number of the subject. /-ʔumɨ/[20] is added to the verb for two or more (only if animate), and follows tense suffixes. It is omitted however if any postfixed pronouns are attached as well. Thus, for the nonsingular subjects in (b), (c) and (d) below, -ʔumɨ is added only in (b):

(92) a. maŋ nukwi-j
he run-pres "He is running."

b. mam nukwi-jɨ-ʔɨm
they run-pres-pl "They [two] are running."

c. nukwi-jɨ-ʔam
run-pres-they "They [two] are running."

d. wii honono?o-j(ɨ-*ʔɨm)
knives fall-pres(-*pl) "The knives [two] are falling."

(-ʔumɨ is used for both singular and plural animate subjects if the verb is an adjective; see section 2.214.)

For three or more (i.e. [+several] as opposed to just [-sing]) the suffix /-ka/ is added to the verb, whether the subject is animate or not. This suffix precedes tenses. Examples:

(93) a. mam nukwi-ka-jɨ-ʔɨm
they run-sev-pres-pl "They [all] are running."

b. wii honono?o-ka-j
knives fall-sev-pres "The knives [all] are falling."

When the verb is suffixed with -ka, the [-sing] marker -?umɨ is optional, e.g. (93a) could have been just mam mukwi-ka-j.

When the object of the verb is three or more (i.e. [+several]) a suffix /-tu/ is added, preceding tenses (ordered optionally before or after -ka, if there is one). Example:

(94) nɨ mamɨ puni-tu-kai-vɨ
I them see-plob-result-past "I saw them."

A small number of verbs have suppletive stems for marking plurality. These stems are used with non-singular subjects if the verb is intransitive, or with non-singular objects if the verb is transitive:

(95) a. maŋ karɨ-j
he sit-pres "He is sitting."

b. mam jɨwi-jɨ-?ɨm
they sit-pres-pl "They [two] are sitting."

c. mam jɨwi-ka-jɨ-?ɨm
they sit-sev-pres-pl "They [all] are sitting."

(96) a. nɨ maka-j wacɨ-mpɨ
I that-ob put-past "I placed that."

b. nɨ maka-j juna-mpɨ
I those-ob put-past "I placed those [two]."

c. nɨ maka-j juna-tu-mpɨ
I those-ob put-plob-past "I placed those [all]."

In imperative sentences, -ka is added to the verb only if the second-person subject (whether overt or not) is three or

more. The suffix -tu is added only if the object is [+sev], despite the fact the latter is in the nominative case. -?umɨ is not used at all.

In sentences with "passive" participles (actually object-relativizations), -ka reflects the number of the subject of the relative clause--what on the surface looks like an "agent" (see section 2.33):

(97) puusi-k nɨmi jaki-ka-kai-n
cat-K us(ob) bring-sev-perf-ptc
{"The cat was brought by us [all]."
"The cat was what we [all] brought."}

(-?umɨ again, does not occur.) Similarly if the subject of the above sentence (the understood object of the relative) is plural, the plural stem of (transitive) bring is used:

(98) puusi-wɨ-k nɨmi ju?aki-ka-kai-n
cat-pl-K us(ob) bring-sev-perf-ptc
"The cats were brought by us [all]."

When the causative suffix /-tu?i/ is added to a verb, -ka is suffixed if either the subject is [+sev] or the semantic subject of the "embedded" verb is.

(99) nɨɨ-k mamɨ tɨka-ka-tu?i-vɨ
I-K them(ob) eat-sev-cause-past
"I made them [all] eat."

This is the only set of cases where the number-agreement suffixes do not reflect the syntactic notions "subject" and "object" in the present analysis (that is, if the "passives" above are viewed as headless relatives instead). One could argue on the basis of (99) that -tu?i is actually a higher verb, with the clause "they eat" embedded below it.

Alternatively, one could derive causatives in the lexicon along with the other verb suffixes, and add a complication to the output constraints on number agreement. The lexical redundancy rule relating causatives might be something like:

$$(100)\quad \begin{bmatrix} /\underline{x}/ \\ +V \\ +S_{[NP_1\ \ VP[X\_\_\_]]} \end{bmatrix} \longleftrightarrow \begin{bmatrix} /\underline{x} + tu?i/ \\ +_V[[V]+caus] \\ +^S[NP\ \ VP[X\ NP_1\ \_\_\_]] \end{bmatrix}$$

Indices on the NPs in the syntactic environments are used to indicate that whatever semantic function is assigned to NP_1 on the left side of the rule will also be assigned to the NP in the NP_1 position on the right side. The semantic functions are determined by the individual lexical entries for each verb. (See Shopen, op. cit.)

For normal verbs suffixed with -ka interpretive rules will assign a reading that the subject of the verb is plural. (If a singular subject is present consistency rules will throw out the sentence. If no subject is present the understood subject will be assumed to be plural.) For verbs with -tu?i one of three readings may be assigned. Either the subject of CAUSE, or the (semantic) subject of the verb stem (NP_1 in the rule above), or both, will be plural.

2.227 Semantic Imperatives

The suffix -vii (normally "past tense"; see section 2.223) may be used with a future, semantically imperative meaning if the subject is second person. Syntactically or morphologically, sentences with -vii have nothing in common

with imperatives (see section 2.26) though they can translate as "you must (verb)" or even "(verb)!" Objects are in the oblique case, and the plural subject enclitic is /-wɨ/ (used in indicative sentences), not */-ja/ (used in syntactic imperative sentences--section 2.26). Such sentences are ambiguous (or homophonous) with the normal past tense interpretation.

(101) a. kani?i-wa?i-vɨɨ-w
visit-go-past-you(pl)
{"You went and visited." / "You must go and visit."}

b. kacu-k aipaci puni-vɨɨ-wa
not-you boy(ob) see-past-neg
{"You didn't see the boy." / "You are not to see the boy."}

c. ɨɨm orangei tɨka-vɨ
you orange(ob) eat-past
{"You ate an orange." / "You're to eat the orange."}

MM suggests these differ from true imperatives in that the latter are more immediate, whereas examples with the past-tense suffix are somewhat more "future" in intent, commanding something to be done after the speaker leaves, for example.

The future tense suffix -vaa may also be used with somewhat of an imperative meaning. Again, such sentences translate more as "you're to (eat)." However this usage is not restricted to second-person if the habitual (participle--see section 2.225) ending is added:

(102) nɨɨ-k uni-va-nt
I-K do-fut-ptc {"I'm going to do it!" / "I'm to do it!"}

Pamela Munro's informant (1974a) gives normal, full imperative translations for this suffix (-vaa) in such sentences (second person).[21] She points out that the objects are in the accusative case, by contrast with true imperative constructions, and that the negative suffix after -vaa is the -wa? used with indicative verbs. As for the subjects, her sentences are of two types: those with -k on the first word (negative kacu- in her examples), which she analyses as subject-less, and those with -? on the first word (e.g. the object) which is, in fact, a second-person singular (nominative) pronoun enclitic.

For MM, -k replaces second-person subjects in any kind of sentence <u>except</u> true imperatives (see section 2.212). Therefore these sentences are not structurally different from normal futures, and are ambiguous for her. The enclitic -? is normal for MM in true imperatives, and is rare in other kinds of constructions. The examples Munro gives with -? and -vaa cooccuring are ungrammatical for MM.

2.23 Postpositional Phrases

There are two kinds of postpositions in Chemehuevi: those which can be used as verbs and those which can't. The former may be optionally suffixed with normal tense-aspect markers and be interpreted as verbs of location or motion (depending on the postposition stem). Without tense-aspect markers these same postpositions cooccur with normal verbs of location or motion and behave more adverbially in the

sentence. In either case their objects (or appositive pronouns) are always prefixed to the postposition stem.

Stems of this first type (all, including the compound stems, optionally verbs) are given in (103) below, with examples of each:

(103) a. /-vaa/ <u>at/on (location)</u>

tɨmp i-vaa-ni?i-j
<u>rock</u> <u>this</u>-<u>at</u>-<u>cont</u>-<u>pres</u>
"The rock is {here / on this}."

b. /-vaa-ntua/ <u>onto (motion)/at</u>

haga-vaa-ntua-ca-uŋ tɨrawi?i-kwa?
<u>what</u>-<u>at</u>-<u>toward</u>-<u>perf</u>-<u>he</u> <u>dash</u>-<u>away</u>
"Where did he run off to?"

c. /-upa?a/ <u>in (location)</u>

pagɨc paa-upa? uni-kai-vɨ
<u>fish</u> <u>water</u>-<u>in</u> <u>be</u>-<u>result</u>-<u>past</u>
"The fish was in the water."

d. /-upa?a-tua/ <u>into (motion)</u>

kani-a-n ma-upa?a-tu nukwi-vɨ
<u>house</u>-<u>ob</u>-<u>I</u> <u>that</u>-<u>in</u>-<u>to</u> <u>run</u>-<u>past</u>
"I ran into that house."

e. /-va?a-na/ <u>on top of (location)</u>

ma-va?ana-vɨɨ-ɨk
<u>that</u>-<u>on</u>-<u>past</u>-<u>it</u>
"It was on that."

f. /-va?a-ntua/ <u>onto/on top of (motion)</u>[22]

mahavɨ ma-va?a-ntua-ŋ
<u>tree(ob)</u> <u>that</u>-<u>on</u>-<u>to</u>-<u>imp</u>
"Get on top of that tree!"

g. /-ruka/ under (location)

wii pagɨci uŋa-ruk uni-ka
knife fish(ob) that-under be-result
"The knife is under the fish."

h. /-ruka-tua/ under (motion)

tɨkatɨaa-ruka-tua-ŋu-?
table-under-to-imp-you
"Go under the table!"

i. /-vin?apa/ behind (location)

i-vin?apa-uk uni-kai-vɨ
this-behind-it be-result-past
"It was behind this."

j. /-vin?apa-cua/ behind (motion)

mahavɨ ma-vin?apa-cu tɨrawi?
tree(ob) that-behind-to dash
"Run behind that tree!"

k. /-tua/ towards (motion)

nɨ-rua-aŋ kijasui-ka
I-toward-he smile-result
"He's smiling at me."

maŋa-rua-ŋu-ik
he-toward-imp-it
"Give him this!"

(Note that for location, using the postposition as verb, or using the verb be instead, seems to make little difference in the meaning, cf. (103e) and (103i) above.)

All the above stems will be listed in the lexicon as $\begin{bmatrix} +post \\ +V \end{bmatrix}$ to allow insertion under either node. Furthermore, they are all [+bnd] since they require objects to be attached.

Most non-compound stems are marked [-motion], whereas those compounded with -tua (and -tua itself) are [+motion]. A few postpositions do not compound at all and may be used with both verbs of motion and location, e.g. /-vaj̈wi/ <u>beside</u>, which is also [-V] (cannot be a verb--I know of no examples of non-verb postpositions which can compound with -tua), and /-waʔi/ <u>with (accompaniment)</u>, which <u>can</u> be a verb. The lexical rule in (104) below relates these motional and non-motional postpositions.

(104)
$$\begin{bmatrix} /\underline{x} + \text{tua}/ \\ +[[\text{post}] + [\text{post}] \\ +\text{mot} \end{bmatrix} \longrightarrow \begin{bmatrix} /\underline{x}/ \\ +\text{post} \\ -\text{mot} \end{bmatrix}$$
$$\searrow \begin{bmatrix} /\text{-tua}/ \\ +\text{post} \\ +\text{mot} \end{bmatrix}$$

The presence of the feature [+motion] essentially dictates what type of verb the postpositional phrase cooccurs with, [+mot] postpositions mark the GOAL for most verbs involving CHANGE (see Shopen 1972, Jackendoff 1972, and Gruber 1967, for discussion). The exceptional postpositions mentioned above will be lexically marked [*motion]. Corresponding forms with -tua will simply be ommitted from the lexicon.

Postpositions which cannot be used as verbs are marked $\begin{bmatrix} +\text{post} \\ -\text{V} \end{bmatrix}$. They share however the rest of their syntactic behavior with the stems in (103), e.g. they append their objects (or appositives). These stems are listed and exemplified in (105):

(105) a. /-vajɨwi/ beside

huu wihi-vajɨw uni-kai-vɨ/*wihi-vajɨwi-vɨ
arrow knife-beside be-result-past
"The arrow was beside the knife."

mahavɨ ma-vajɨw kwaɨ-ŋ
tree(ob) that-beside go-imp
"Go beside the tree!"

b. /-wa/ with (instrument)

uŋ wihi-w tukuavi cikwɨ-vɨ
he knife-with meat(ob) cut-past
"He cut the meat with a knife."

c. /-waŋku/ from

John aipaci-waŋk pagɨci ɨjɨŋi-ŋkwa
John boy-from fish(ob) steal-perf
"John stole the fish from the boy."

d. /-mantɨa/ ~ /-wantɨa/ some of/part of

puusi-wɨ-a-n umɨ-wantɨ puni-kai-vɨ
cat-pl-ob-I those-some see-result-past
"I saw some of those cats."

e. /-vacɨ/ about

himpɨ-vacɨ-auk nonosi-ga
what-about-you dream-pres
"What were you dreaming about?"

f. /-manaŋkwa/ from

maŋ ja?i-ŋucik tɨgɨi-manaŋkw
he die-about to hunger-from
"He is dying of hunger."

kani-ipa?a-tɨ-manaŋkwa-ca-n tɨrawi?
house-in-ptc-from -perf-I dash
"I ran (out) from inside the house."

Note that objects of postpositions do not take the oblique marker /-a/ if they are prefixed to the postposition. This could suggest the alternative of analyzing postpositions as case suffixes, as has been done for other languages. However for Chemehuevi I reject this alternative since (a) postpositions are often equivalent to verb stems; (b) modifiers do not "agree" in case/postposition with the noun (e.g. maka-j paa-upa? "in that water"); and (c) with an appositive prefixed to the postposition the noun is in the normal oblique case (as are all modifiers).

that-ob	water-in

2.24 Interrogatives

2.241 Yes-No and Alternative Questions

Yes-No questions in Chemehuevi are formed by the addition of the enclitic /-raa/ to the first word in the sentence. Examples in (106) below demonstrate that this can be verb, noun, or adverb. (Since I'm using "?" as "glottal stop", question marks will be "??", representing intonation contours[23] associated with questions.)

(106) a. Anni-ra ɨmi pagɨci maga-j ??
Ann-Q you(ob) fish(ob) give-pres
"Did Ann give you a fish?"

b. tɨka-jɨ-ra-?aŋ aipac aŋ ??
eat-pres-Q-he boy that
"Is the boy eating?"

c. utusampa-ra-?uk maŋ navakɨ-r ??
always-Q-K he swim-habit
"Does he swim all the time?"

d. kacu-ra-? tɨka-vaa-wa ??
not-Q-you eat-fut-neg
"Aren't you going to eat?"

In Yes-No questions, the present and past tenses fall together, present tense -jɨ being used for both. Past -vɨɨ is prohibited in questions, though frequent use of the preterite enclitic -ca is made.

The enclitic -ra co-occurs with other tense suffixes, and precedes suffixed pronouns.

I have been unable to obtain any obvious alternative questions in Chemehuevi (or alternative statements for that matter, see section 2.31). In order to ask something like "Is he here or there?" in Chemehuevi, one simply asks two Yes-No questions in succession, as in (107):

(107) ivani-jɨ-ra-?uŋ ?? uvani-jɨ-ra-?uŋ ??
here-pres-Q-he there-pres-Q-he
"Is he here?" "Is he there?"

Another question type involves a final glottal stop suffix which, when suffixed onto single-word utterances, has the effect of questioning just that constituent, as though raising it as a possible answer to a previous question. Again, one can approximate an alternative question by questioning two such constituents, though the meaning is still not exclusively disjunctive. Examples: (The -? not only protects the stem-final vowel, it phonetically lengthens it.)[24]

(108) a. haŋ tɨka-j ?? Anni-? ??
who eat-pres Ann-Q
"Who's eating?" {"Ann?" "Is it Ann?"}

b. haŋ uni-vaa-nt ?? ɨmii-? ?? nɨ?ɨ? ??
who do-fut-hab you-Q I-Q
"Who's to do it?" "You?" "I?"

c. hagaka-ja-? iva-ntɨ-n ha?ɨsutui-j ??
which-ob-you at here-ptc-nml like-pres
"Which one do you like?

ika-ja-? ?? maka-ja-? ??
this one-ob-Q that one-ob-Q
This one? That one?"

Pamela Munro (p.c.) and Harrington both report similar uses of the suffix /-?/ (for example, Harrington cites in isolation nɨɨ?ɨɨ?, "Who--me?", and tɨmpii?, "Is it a rock?").

Although in many languages there is strong motivation for deriving Yes-No questions from alternative questions, the absence of any clear-cut disjunctive coordination in Chemehuevi argues against such an analysis in this case, even if deletion were allowable.

There is one other type of interrogative that semantically functions as a Yes-No question, namely the predicate urɨɨ, which translates something like "is it still the case that...". This either precedes or follows a clause consisting of a subject in the oblique case and a nominalized verb. The verb must contain the suffix /-su/, meaning "still" or "too". Due perhaps to the semantics of the "higher" verb the clause can not be in the past tense. Examples:

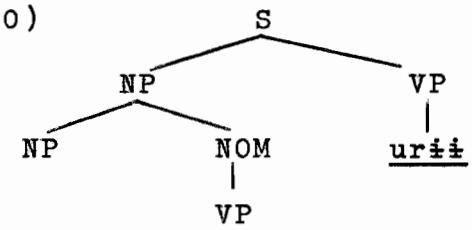
(109) a. urɨɨ ɨmi nukwi-na-s ??
Q you(ob) run-nml-still
"Are you still running?"

b. urɨɨ tɨka-ni?i-va-na-su-?um ??
Q eat-contin-fut-nml-still-you(ob)
"Will you still be eating?"

c. tɨka-na-su-?uŋ urɨɨ ??
eat-nml-still-him Q
"Is he still eating?"

For these I would propose a tree like the following; urɨɨ could have a lexical entry as in (111):

(110)



(111) [/urɨɨ/
+V
[$_{NP}$[NP NOM]___]
IS IT STILL THE CASE THAT]

(For the frequent shifting of clauses after the verb, see section 2.4.)

2.242 Information Questions

Information questions are full sentences in which one constituent is being questioned. Unlike English, Chemehuevi has the same word order in declarative and interrogative sentences. There is a somewhat greater tendency to front the questioned constituent, but all order constraints are strictly adhered to (see section 2.4). The following is a list of interrogative forms (given in underlying form) in Chemehuevi:

(112) himpɨ what [-anim] [*concrete]

haŋa who [+human]

hini who/what [+anim] [*human]

hanoko when

haga-ka-ja which

haga-vaa where (loc)

haga-rua whither

(similarly for other postpositions)

hanopai how many

haga-ru?a how

haga-ru?a-gai why

haga-ni why/how

haga-ni-gai why

The following are WH-verb forms (discussed below):

hania say what/say how

haga-ni do what

(As with Yes-No questions, the past tense suffix -vɨɨ is prohibited.) Examples:

(113) a. himpɨ-a-uŋ po?o-j
what-ob-he write-pres
"What did he write?"

b. ɨɨm haŋ
you who
"Who are you?"

c. hanoko-ca-uŋ tɨrawi?i-kwa
when-past-he dash-away
"When did he run off?"

d. haga-vaa-ntua-ca-uŋ tɨrawi?i-kwa
where-at-towards-past-he dash-away
"Where did he run off to?"

e. hagarua-jɨ-?
how -pres-you
"How are you?"

f. ɨɨm hagaruaga kac tɨka-wa-t
you why not eat-neg-ptc
"Why aren't you eating?"

g. hagan mai-ka-t
how say-p/p-pass
"How is it said? (How do you say...)"

h. tugump ar hagan ma?aka-t
sky that how paint-pass
"What color is the sky?"

i. haganigai-ŋ Ann nukwi-va
why -she Ann run-fut
"Why is Ann going to run?"

j. hagani-ŋu-ca-uŋ
do what-mom-past-he
"What did he do?"

k. hania-ka-uŋ = hania-uŋ mai-k
say what-pres/past-he = say what-he say-pres/past
"What did he say?"

l. himp hania-tɨ-j
what say what-pass-pres
"What was said?"

m. hani tɨnia-tɨ-j
how tell-pass-pres
"How was it told (what manner, speaking, writing, etc.)?"

The last few examples illustrate some of the peculiarities of the questioned verb forms. hania- can take normal verb suffixes and behave exactly as the main verb in the question, or unsuffixed it can function as the object of the verb mai-, to say, (but not of tɨnia-, to tell) of nija-, to name, and according to Pamela Munro (p.c.) of hear, mean, cry about, and dream. As a verb, note that hania- itself can take an object, himpɨ (1131). Elsewhere it is used adverbially, e.g. in (113m) above.

The verb "do what" could be identical to, or the source of, the adverb haga-ni-(gai). The suffix -gai is a common subordinator (like-subjects, concurrent time), and the adverb could be translated as "doing what,..." e.g. "What did he do to cut it?" for "How did he cut it?". In other instances where it appears with tenses (with the "main" verb subordinate), one could think of the translation as "What was he doing cutting it?" for "Why did he cut it?"

Morphologically, one might add that the suffix -ni in haga-ni is most certainly relatable to uni-, to do (cf. Sapir, p. 209). (It also occurs to me that the -ru?a in haga-ru?a-gai is the stem to be, and that this adverb, too, probably comes from a verb, being how.)

Indirect questions may be formed using the same forms. Example:

(114) kacu-uka-n putucuga-wa Anni mamɨ
not-it-I know-neg Ann(ob) them(ob)

himpɨ maga-tu-kai-n
what(ob) give-plob-perf-ptc

"I don't know what Ann gave them."

2.243 Tag Questions

Tag questions are very straightforward in Chemehuevi. Any sentence (except another question) may end in a tag, which is always /hɨnaa/. Examples:

(115) a. iva-ni?i-jɨ-aŋ, hɨnaa ??
here-contin-pres-he, tag
"He's here, isn't he?"

b. ic kac ha?ɨ-ju-wa, hɨnaa ??
this not good-pres-neg, tag
"This isn;t good, is it?"

(For intonation, see footnote 24, this section.) /hɨnaa/ may also be added to imperatives:

(116) huvitu-ŋu-?, hɨnaa ??
sing-imp-you, tag
"Sing, {huh?" / won't you?"}

2.244 Analysis

In the PS rule expanding S, I have allowed an optional Q. In the lexicon the following entries may be attached to this node:

(117) a. [/hɨnaa/ ; +Q ; -bnd ; inton 3 ; RIGHT?] b. [/-ʔ/ ; +Q ; +bnd ; +suffix ; inton 3 ; IS IT] c. [/-raa/ ; +Q ; +bnd ; +encl[25] ; inton 2 ; IS IT THE CASE THAT]

Each is marked to trigger a given intonation contour. In general I am not treating intonation in this work, but assume intonation contour "3" to be something like ⌒ + length on the last vowel; intonation contour "2" to be ——, and "1" (on declaratives) to be —\. (These ignore the contribution of stress.)

Since -ra is an enclitic, a transformational rule will attach it to the first word in the sentence after all other permutation rules have established what that word is.

The WH forms will also constitute lexical entries, with haŋa etc. marked [+pro], hanoko etc. marked [+Adv], and hania and hagani marked [+V]. The form hania is also entered as a [+Adv] and [+pro]. The fact that these words are questioned constituents will be included in the semantic portion of each entry.

2.25 Passives

There are two kinds of constructions in Chemehuevi which can translate as passives in English. Transitive verbs to which a suffix /-tɨɨ/ has been added become passive in meaning but may not co-occur with an overt agent. These are discussed below. To express an agent in a sentence where the

"object" is in the nominative, one must use a participial construction with the agent in the accusative, the verb being participialized by the addition of the suffix -na. Strictly speaking, these latter constructions may be related to headless object relative clauses, and are discussed in section 2.33 below.

The suffix -tɨɨ might be viewed simply as an intransitivizer. Verbs with -tɨɨ take a full range of tenses, as illustrated in (118) below. All such examples are judged ungrammatical if an agent noun is introduced.

(118) a. tukuav cikwɨ-tɨɨ-j
meat cut-pass-pres
"The meat is being cut."

b. samita?ap tɨka-tɨɨ-vɨ
bread eat-pass-past
"The bread was eaten."

c. pagɨc tɨka-tɨɨ-va
fish eat-pass-future
"The fish will be eaten."

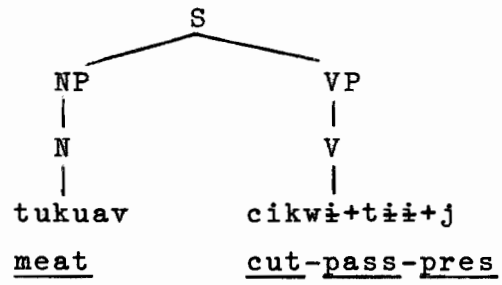
The only surface expression of an implied agent shows up in the number agreement marking on the verb. Recall that when the underlying subject of a verb is three or more in number -ka is suffixed to the verb stem (see section 2.226). In a passive sentence in which the implied agent is plural, whether or not the surface subject is, -ka shows up on the verb, as in (119):

(119) tukuav tɨka-tɨɨ-ka-j
meat eat-pass-pl-pres
"The meat is being eaten by many."

Aside from this, there is no further evidence in Chemehuevi to support the derivation of these passives from corresponding active sentences. Instead of invoking an obligatory deletion rule to obtain these sentences I would propose they be derived directly, with the verb form lexically assembled.

The following represents the deep structure, then, for agentless passives as in (118a) above:

(120)



Passive verbs then constitute part of the verb paradigm in the lexicon. A lexical redundancy rule relating cikwɨ-tɨɨ- to cikwɨ, etc. is given in (121):

(121) $$\begin{bmatrix} /\underline{x}/ \\ +V \\ [NP\ _{VP}[X\ NP_1 \_\_\_ X]] \\ X \end{bmatrix} \longleftrightarrow \begin{bmatrix} /\underline{x} + tɨɨ/ \\ +V \\ [NP_1\ _{VP}[X \_\_\_ X]] \\ BE\ X\text{-}EN \end{bmatrix}$$

Whatever the verb, rule (121) states that the form suffixed with -tɨɨ cooccurs with one less NP than the form without -tɨɨ, and that selectional restrictions and semantic functions associated with the object in the latter case are the same as for the subject in the former case. (See p. 137 for discussion of NP indices.)

2.26 Imperatives

The following surface features signal syntactic imperatives[26] in Chemehuevi:

A. Verbs which are inherently durative add /-ŋu/ to the stem (or stem + any affixes except tense). Verbs which are inherently momentaneous add nothing. Verb stems which can be used either momentaneously or duratively add Ø or -ŋu respectively (depending on the meaning assigned to the stem). Examples: (For /-?/ see D below.)

(122) a. nukwi-, run, [-mom]: nukwi-ŋu-?, run!

b. tɨrawi?i-, dash off, [+mom]: tɨrawi?i-?, dash off!

c. suwaka-, breathe, [*mom]:

{suwaka-ŋu-?, breathe!
suwaka-?, take a breath!}

No tense suffixes occur in (syntactic) imperatives.

B. Objects of the verb which are normally marked oblique are in the nominative case in imperatives. This includes "direct" as well as "indirect" objects, but does not include objects of postpositions. (For postpositions as verbs, see section 2.23.) Examples:

(123) a. aipac wampakwic punikai-tu?i-ŋ
boy scorpion see-cause-imp
"Show the boy the scorpion!"

b. mahavɨ mawa-ntua-ŋ
tree(ob) on there-toward-imp
"Get onto the tree!"

C. Word order constraints on surface subjects seem to apply to the nominative objects of imperatives. Either the object occurs sentence-initially, or it (or a copy pronoun) is attached as an enclitic to the first word.[27] For double-object verbs the two (nominative) objects occur in first and second position. The suffix -k (see section 2.225) cannot occur in an imperative sentence. Examples:

(124) a. tɨka-ŋu-ja-aŋ pagɨc aŋ
eat-imp-pl-him fish that
"Eat (dual) that fish!"

b. kacu-aŋ tawɨ-wai-tu?i-?ap
not-him us-with-cause-neg
"Don't let him [come] with us!"

D. In singular imperatives the subject "you" shows up either in full form /ɨmi/, as a postfix /-?/ (second person singular nominative), as both, or not at all. The full form apparently is added to the sentence only for emphasis. For all imperatives, whether the postfix -? occurs (or nothing does) depends strictly on the word-order in the sentence. First, -? (like normal subject postfixes; see section 2.4) must attach to the first word in the sentence. However (in MM's dialect) -? can only attach to verbs. Furthermore, it cannot cooccur with other postfix pronouns on the same word. Therefore, in a sentence with an object, which must also occur first in the sentence, -? is destined not to show up. In any sentence in which it can occur, it must.

Examples of singular imperatives:

(125) a. ɨɨm nukwi-ŋ (*ɨɨm nukwi-ŋu-ʔ)
you run-imp
{"Run!" / "You run!"}

b. nukwi-ŋu-ʔ (*nukwi-ŋ)
run-imp-you(sg)
"Run!"

c. ic hivi-ŋ (*ic hivi-ŋu-ʔ) (*icu-ʔ hivi-ŋ)
this drink-imp
"Drink this!"

d. tɨka-ŋu-ʔ ɨɨm
eat-imp-you(sg) you
"Eat!"

E. For plural imperatives (dual or more) the enclitic form of the subject is /-ja/. This, too, is constrained to suffixation on the first word, but that word may be a verb, noun, or adverb. -ja may cooccur with enclitic pronouns on the same word. Plural imperative sentences may also use the full pronoun form, in this case mɨɨm. As in the case of the singular, the two forms of "you" may cooccur if the full form is not sentence-initial, since -ja cannot attach to mɨɨm.[28]

(126) a. mɨɨm man tɨka-ka-ŋ
you(pl) all eat-pl-imp
"All of you, eat!"

b. mano-j tɨka-ka-ŋ
all-you(pl) eat-pl-imp
"All of you, eat!"

c. icu-j huvitu-ŋ (compared with ic huvitu-ŋ for singular)
this-you(pl) sing-imp
"Sing (dual) this!"

d. huvitu-ka-ŋu-ja-ik
sing-pl-imp-you(pl)-this
"Sing (pl) this!"

e. aɨvi-j navakɨ-ka-ŋ
now-you(pl) swim-pl-imp
"Swim (pl) now!"

F. Negative imperatives are formed by the inclusion of the negative adverb kac in the sentence, and the suffixation of -ʔap directly onto the verb stem. No -ŋu appears in negative imperative sentences. Examples:

(127) a. kac huvitu-ʔap
not sing-neg
"Don't sing!"

b. kacu-j huvitu-ka-ʔap
not-you(pl) sing-pl-neg
"Don't sing (pl)!"

G. Imperatives of passive verbs are formed just as in declaratives, with the suffix -tɨɨ and no agent. Examples with agents (i.e. participial constructions, see section 2.33) have not been obtained in imperatives, perhaps due to problems with the semantics. Examples:

(128) kac kwikwipa-tɨɨ-ʔap
not beat-pass-neg
"Don't be beaten!"

Analysis

The lexical entries for all the second person pronouns are as follows:

(129) a. [/ɨmi/ ; +pro ; +sg ; II pers ; αbnd ; αprefix]

b. [/mɨmi/ ; +pro ; -sg ; II pers ; αbnd ; αprefix]

c. [/ɨmi + a/ ; +pro ; +sg ; II pers ; -bnd ; -prefix]

d. [/mɨmi + a/ ; +pro ; -sg ; II pers ; -bnd ; -prefix]

e. [/-ukV/ ; +pro ; +sg ; II pers ; -imp ; +bnd ; -prefix ; -suffix]

f. [/-wV/ ; +pro ; -sg ; II pers ; -imp ; +bnd ; -prefix ; -suffix]

g. [/-mV/ ; +pro ; +sg ; II pers ; -imp ; +bnd ; -prefix ; -suffix ; $+_N$[[N]+ob]]

(gap, for plural form in oblique case. I- and III-person postfixes will all be $*_N$[[N]+ob]; II person postfixes will not.)

h. [/-?/ ; +pro ; +sg ; II pers ; +imp ; +bnd ; -prefix ; -suffix]

i. [/-ja/ ; +pro ; -sg ; II pers ; +imp ; +bnd ; -prefix ; -suffix]

(The cooccurrence feature [+imp] is used to mark those forms which appear as subjects of imperative verbs. For discussion

of the other features, see section 0.4 and section 2.212.)

Any of these forms may be freely inserted under any NP node. Output conditions and interpretive rules will throw out sentences with improper case marking on any NP, sentences which violate number agreement, and sentences which have imperative verbs but [-imp] subject pronominal forms, or non-imperative verbs with [+imp] pronominal forms. Output constraints must also insure that /-?/ and /-ja/ are attached to the first word in the sentence (see section 2.4), and that in the case of the former the first word is a verb.

Imperative sentences in which full and bound subject forms cooccur will be handled in section 2.4 on word order.

2.3 Complex Sentences

2.31 Conjunction, Coordination

Conjunction in Chemehuevi is very limited. Two clauses may be coordinated by juxtaposition under a single sentence-intonation curve. There is no "deletion" of common constituents and there is no word for "and". If the subjects of the clauses are identical and the actions are not concurrent, a clausal connector /haita-/ may be used, with the meaning "then" or "after that". Single sentences may contain haita- but presuppose prior discussion of the subject. The subject in fact must be postfixed to the adverb, indicating that presupposition and focus play a role in determining whether a pronoun is to be free or bound. (Of course the use of a pronoun at all presupposes the hearer knows the referent. The

point is, a clause or sentence with haita- (or perhaps any clause with a postfix pronoun) cannot use the subject contrastively). Attaching the object pronoun to haita- does not satisfy the requirement; the subject must be attached as well:

(130) a. haita-uka-aŋ tɨka-mpɨ
then-it-he eat-past
"He ate it then."

b. *maŋ haita-uk tɨka-mpɨ
he then-it eat-past

There is some indication that haita- requires momentaneous action in the past rather than durative. Verbs which can take either the -mpɨ or -vɨ past tense endings (see section 2.223) must use -mpɨ when introduced by haita-.

Examples of haita-:

(131) a. navakɨ-jɨ-aŋ haita-uŋ tɨka-jɨ-s
swim-pres-he then-he eat-pres-too
"He is swimming and eating, too."

b. nɨɨ-k samita?a-tɨka-vɨ haita-n waini
I-K bread-eat-past then-I wine(ob)
hivi-vɨ-s
drink-past-too
"I ate bread and then drank wine, too."

c. haita-uŋ tɨka-{mpɨ / *vɨ}
then-he eat-past
"He ate, then."

Note that though the subjects are identical, no deletion is allowed in the second clause. (I don't know why the pronouns

disagree in (131a); there seems to be a preference for an invisible subject after haita-.)

A second way to semantically conjoin verb-phrases is to subordinate one, using one of four subordinating suffixes (see section 2.32). To indicate the simultanaeity of two actions, /-gai/ is used (for like subjects). (Here the "second" subject is "deleted" under identity.) E.g.:

(132) Ann ijavi tɨka-ga pihivo?ovi hivi-vɨ-s
Ann grapes(ob) eat-while milk(ob) drink-past-too
"Ann ate grapes and drank milk."

(Note the frequent use of /-su/, meaning "too" in the examples above; with haita- this may cement closer together two otherwise independent clauses, with -gai it may help balance the subordinateness to imply more coordinateness.)

I propose listing haita- as a conjunction in the lexicon (the only one to my knowledge) even though it doesn't require two overt clauses (the fact that it presupposes some prior related discourse will be part of its interpretation).

One might be inclined to call haita- a sentence adverb, since it occurs in simple sentences on the surface. However, because semantically it involves two clauses, and because it can only appear clause-initially (no other adverb is so constrained), I am inclined to reject this alternative.

The PS rule expanding S then is as follows:

(133) $$S \rightarrow \left\{ \begin{matrix} S\ S\ (S)^* \\ (Conj)\ (NP)\ (SUBORD)\ VP\ (Q) \end{matrix} \right\}$$

The first line is used for generating two or more juxtaposed clauses (under the same intonation contour). The Conj in the second line is included within the clause to make certain permutation constraints somewhat more general (namely that a postfixed subject must be attached to the "first word in the sentence").

Subordination originates in the second line of the expansion. SUBORD can be expanded simply to a VP. Since some of the subordinating suffixes have other uses, I include them in the lexical paradigm of each verb (with the appropriate redundancy rules). Verbs with -gai, interpreted subordinately or coordinately, are inserted in the context $_{SUBORD}[_{VP}[X\_\_]]$.

There are two ways of semantically conjoining NPs. The first is a suffix /-gajaa/, comparable to the verb suffix /-su/, also meaning "too", which is attached to nouns. (Like -su, it apparently can attach to verbs as well but not in the presence of a second verb.) It can occur in a non-coordinate NP, as in (134a) below, but is frequently used with two overt NPs. Examples:

(134) a. ɨmi-gaja nukwi-ŋu-s
you-too run-imp-too
"You run, too!"

b. Ann Johni nɨni-a-gaja punikai-vɨ
Ann John(ob) I-ob-too see-past
"Ann saw John and me."

c. Ann Margaret uŋa-gaja Johni punikai-vɨ-(-?ɨm)
Ann Margaret she-too John(ob) see-past-(pl)
"Ann and Margaret saw John."

(In (134c) the verb is optionally marked "dual-subj".) -gaja is not a postposition, since case is marked on the noun stem to which it is attached (cf. section 2.23). This particular NP conjunction may be the Chemehuevi construction closest to syntactic coordination.

Since -gajaa can occur on a non-conjoined noun, I will treat it simply as a noun suffix (resulting in a noun). N + gajaa can be inserted in the matrix sentence under any NP, or under the SUBORD node, which expands to: SUBORD → (NP) (VP). Examples (134b) and (134c) above both use this source. Nouns with either case suffixed with -gaja can be inserted freely under the SUBORD node; when an oblique noun appears, interpretive rules will translate it as "conjoined" with the object, when a nominative noun appears it is interpreted as conjoined with the subject. (In a transformational account involving deletion, these nouns would have originated in full clauses in which all other constituents were identical (and consequently deleted) with the corresponding constituents in the main clause).

The suffix -gajaa can never imply the NPs were "together" in the action, as shown in the following examples:

(135) a. John Anni { -wa (see below) / -*gaja } na-gumaru-mpɨ-?ɨm

John Ann- { with / *too } recip/reflex-marry-past-pl

"John and Ann married."

b. John aipaci-gaja na-gukwi-vɨ-?ɨm

John boy-too recip/reflex-shoot-past-pl

"John and the boy shot { themselves." / *each other." }

The second method of combining NPs is to use the postposition /-wai/ (~ -waʔa-, see section 1.33), meaning "with (accompaniment)". This can be used either for subject NPs or object NPs; but since postpositions do not allow oblique case markers on the noun stem, -wai itself has a special oblique case form, -waʔa-ku.[29] (-ku is used as an oblique case marker for such things as numerals as well.) Without this, all such NPs would be ambiguous. Examples of this type of "conjunction" follow in (136) below:

(Semantically, the difference between (136c) and (134b) is that -wai implies the objects were together, -gaja does not.)

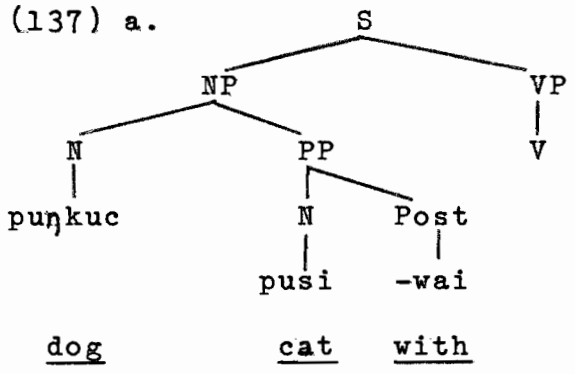
(136) a. puŋkuc aŋ pusi-wa nukwi-jɨ-ʔɨm
dog that cat-with run-pres-[-sing] (=dual)
"The dog and the cat are running."

b. puŋkuc ohovɨ-wa tɨrawiʔi-kwai-vɨ
dog bone-with dash-away-past (= sing)
"The dog ran away with a bone."

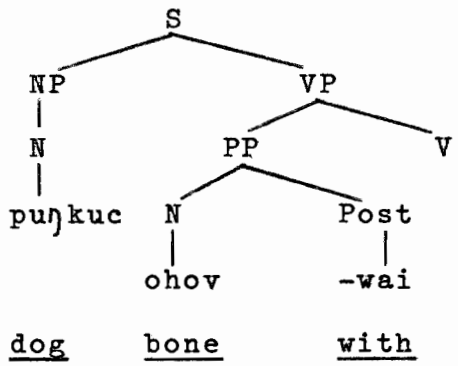
c. Ann Johni nɨni-waʔa-k punikai-vɨ
Ann John(ob) I-with-ob see-past
"Ann saw John and me."

Note that the verb is dual in (136a), probably to emphasize that semantically the subject is coordinate, cf. (136b) where the verb is singular, perhaps because the object of "with" is not willingly partaking in the action. Scattered examples occur where sentences with conjoined animate subjects show up with a singular verb. Perhaps these, too, are interpreted less like conjuncts. It may be there are two sources for the nominative instances of N+wai, as shown in (137):

(137) a.



b.



(137a) represents NPs semantically conjoined, both "acting together". (For direct objects, PP is embedded under the NP in the VP.) (137b) represents instead an adverbial use of N+wai (though it still means "accompaniment" as opposed to "instrument", a separate suffix). This then is not properly conjunction at all, either syntactically or semantically.

When number agreement is checked on the verb it will have to count singular nouns modified by -wai phrases as plural (dual or several).

The coordinateness of two noun phrases may further be stressed by using "both", as in the following example:

(138) wahajugaisu-?um Ann Johni-wa nukwi-vii-m
both-they Ann John-with run-past-[-sing]
"Both Ann and John were running."

Disjunctive coordination is even more restricted in Chemehuevi. The following examples illustrate available ways to get around the lack of any syntactic or morphological "or":

(139) a. tami-want tɨgu?uni-va
we(inclus)-some(of) cook-fut
{"Either you or I will cook." / "One of us will cook."}

b. Oder, suuv Ann, pipicɨ-va
Oder, maybe Ann, arrive-fut
{"Oder or Ann will come." / "Oder, maybe Ann, will come."}

(For discussion of disjunction in questions, see section 2.241.)

There is no exact equivalent of the clausal connector "but" in Chemehuevi, although there is a suffix /-gaisapa/ which added to verbs means something like "(even) though". I'm not yet sure where -gaisap comes from, but my feeling is that the result is a non-finite verb, perhaps a subordinate clause. In (140) below are given examples of -gaisap (~ -kaisap) with and without a second clause. In the latter case the translation is more "contrary to what you might think". (Bear in mind that other non-finite verbs can show up as main verbs, see section 2.225.)

(140) a. nɨɨ-k nukwi-gaisap
I-K run-though
"I'm running (, I'm just resting a second!)"

b. naŋka-kaisapa?a-n
hear-though-I
"I hear (though he may not think so)."

c. puni-karɨ-gaisapa?a-n kac humpait himpɨ
see-sit-though-I not any what

puni-vɨ-wa
see-past-neg

"I watched, but I didn't see anything."
("Though watching, I didn't see anything.")

d. paa-ga-ku-n navakɨ-ŋku hu?urua-gaisapa-n
water-being-would-I swim-could be-though-I

kacu-gu
not-would

"If there were water I could swim, but I wouldn't."

2.32 Subordination

There seem to be four major types of adverbial clauses in Chemehuevi, depending on whether the subject and tense match those of the main clause. For each possible situation there is a separate subordinating suffix on the embedded verb. These are given in (141) below, with examples of each in (142):

(141)	a.	-gai	like-subjects	contemporaneous (durative) action
	b.	-gu	unlike-subjects	contemporaneous (durative) action (~ -ku)
	c.	-ci	like-subjects	momentaneous action
	d.	-ka	unlike-subjects	momentaneous action

(There is a suppletive form for -gai, which is -ju after any sequence -ai-.) The suffixes -ci and -ka by themselves refer to antecedent actions, but may occur with future -vaa to indicate "being about to".

(142) a. John huvitu-ni?i-ga wɨnɨmi-j

John sing-contin-subord dance-pres

"John is singing and dancing."
"...dancing while singing."

b. puŋkuci huvitu-g, aipac aŋ tɨka-vɨ

dog(ob) sing-subord boy that eat-past

"While the dog sang the boy ate."

c. Ann ijapaka-c tɨrawi?i-kwai-vɨ

Ann be scared-subord dash-away-past

"Ann got scared and ran away,"
"...ran off because she got scared."

d. nɨɨm jaga-ka-vɨ?ɨ-m naga-vuŋkuci-wɨ

we cry-pl-past-[-sg] mountain sheep-pet-pl(ob)

kogo?i-tɨ-ka-k

kill-pass-pl-subord

"We cried because the sheep were killed."

(For -gai → -ju:)

e. ja?i-vɨ-n navakɨ-kai-kai-j

be tired-past-I swim-result-perf-subord

"I was tired because I swam."

These clauses can be translated often as "if" or "because" as well as simply "while" (for the contemporaneous suffixes), "when" or "in order to" (for the non-contemporaneous momentaneous suffixes). When an antecedent durative clause is subordinated, there seems to be a tendency to add the resultative (or perfective and resultative) suffix and thereby use the contemporaneous suffixes. In all cases the tense of the clause is relative to that of the main verb--e.g. -gai is interpreted as past tense if the main verb is also past.

On the surface, subjects in subordinate clauses which are coreferential with subjects in the main clause are obligatorily omitted. Instead of "deleting under identity" I propose generating these clauses with optional subjects[30] in the deep structure; verbs suffixed with -gu and -ka being marked for insertion in $\underset{\text{SUBORD}}{[\quad \text{NP}}\ \underset{\text{VP}}{[\ \text{X}\_\_\_]}\ ]$, those with -gai and -ci marked for $\underset{\text{SUBORD}}{[\quad}\ \underset{\text{VP}}{[\ \text{X}\_\_\_]}\ ]$.

The suffixes -gai and -gu are predictably part of the paradigms of durative verb stems; -ci and -ka of momentaneous verb stems. (For verb tense see section 2.223.)

2.33 Participles (Relativization)

Relative clauses in Chemehuevi are equivalent to participial phrases. There are two participle endings, the active /-tɨ/ (with the usual variants -ntɨ, -rɨ, -cɨ), and what might be called the passive /-na/. The former is always used in subject-relativization, the latter in object relativization. Sentences which on the surface translate as passive snetences with overt agents could be taken to be derived from sentences with headless relatives; relativization and agent-passivization therefore are not independent processes in Chemehuevi.

In a standard transformational analysis, subject relativization would involve deletion under identity of the embedded subject, and participle formation of the embedded verb. For some tenses -tɨ is simply suffixed, e.g. future -vaa

becomes -vaa-nti. Others, like the present tense, delete: -ji-ti > -ti. Participles may not be formed from simple past -vii; perfective -kai-ti > -ka-nti or remote past -pi-gai-ti > -pi-ga-nti are used instead. (For ai → a, see section 1.33 under Phonology.) Subject relativization is illustrated in (143) below.

(143) a. tiimp ar wi?iku-ka-t pitijant uru?a-j
rock that fall-pres/past-ptc heavy be-pres
"That rock which fell was/is heavy."

b. puusi-a-n sija?i-ci mavo?a-mpi
cat-ob-I cold-ptc(ob) cover-past
"I covered the cat which was cold."

Note in (143b) that the verb, having become a participle, agrees in case with the noun it modifies. All active participles take /-a/ in the oblique case, which deletes word-finally.

Participles do not always appear with a head noun on the surface. There are two situations where they show up without a head: (1) when the relative clause is the predicate nominative of an understood BE, resulting in the surface "habitual" aspect, and (2) when, for some verbs, the relative clause (in a transformational account) would be headless or modifying some sort of indefinite third-person pronoun ("one who"). The latter act like ordinary nouns and could be treated as such. In many cases the participles have probably been lexicalized (see words e.g. for teacher, doctor, police-man).

Examples of the "habitual" aspect:

(144) a. nɨɨ-k utusamp tɨka-r
I-K always eat-ptc
"I always eat."

b. aipac pa?a-ntɨ-m
boy tall-ptc-anim
"The boy is tall."

(See section on Adjectives, 2.214 for discussion of the animate suffix on verbs.)

Examples of headless subject relatives:

(145) a. pa?a-ntɨ-m nukwi-j
tall-ptc-anim run-pres
"The tall one is running."

b. nɨɨ-k hoko-ntɨ-mɨ kwɨhɨ-vɨ
I-K large-ptc-anim(ob) catch-past
"I caught a large one."

In a standard transformational analysis object-relativization would involve deletion under identity of the embedded object. The subject of the clause appears in the oblique case and could be considered to be either agentive or possessive on the surface. (For arguments against the latter see section 2.34 under nominals.) The verb forms a participle by adding /-na/ with tense restrictions very much like -tɨ. These, too, can appear without heads. When embedded under the predicate nominative of a missing BE they may be optionally translated either as passives with agents ("X was VERBED by Y") or as headless relatives ("X is what Y VERBED").

Examples of object-relativization are given below:

(146) a. puusi-a-n punikai-vɨ mavo?a-kai-na-n
cat-ob-I see-past cover-perf-ptc-I
"I saw the cat which I had covered."

b. waampakwic nɨni paka-mpa-n aipaci kwipa-vɨ
scorpion I(ob) kill-fut-ptc boy(ob) sting-past
"The scorpion I'm going to kill stung the boy."

The participle -na takes a zero accusative ending. Headless object-relatives are shown in (147):

(147) a. tukuavi-k Anni cikwɨ-mpa-n
meat-K Ann(ob) cut-fut-ptc
{"The meat is what Ann is going to cut."
"The meat will be cut by Ann."}

b. marɨ-k huvav tɨka-kai-na-n
that-K soup eat-perf-ptc-I
{"That soup is what I ate."
"That soup was eaten by me."}

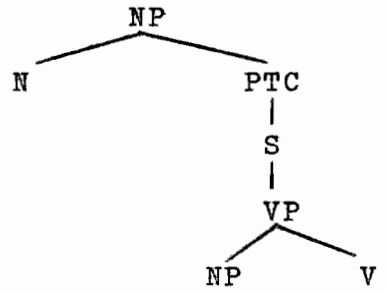
c. icɨ-k tɨka-na-?iŋ
this-K eat-ptc-he
{"This is what he's eating."
"This is being eaten by him."}

(The enclitic -K (< -ukV) is very common with participles; see section 2.225.)

In the present analysis where deletion rules are avoided, participles will be generated only with as much structure as actually surfaces. Participles will be analyzed as sentential, however the S-node may optionally expand to a VP without a subject. (In main clauses this is needed as the source of, e.g., many imperatives.) The following structures, generated by the Phrase Structure rules in section 2.1, are taken

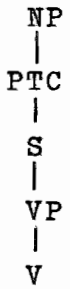
to be the sources of all participle constructions discussed above:

(148) a. "Subject-relatives"



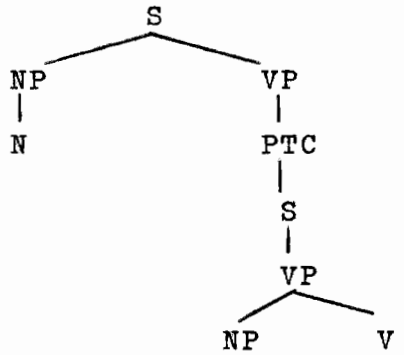
e.g. aipac puŋkuci tavi-ka-t
boy dog(ob) hit-perf-ptc
"The boy who hit the dog."

b. "Headless subject relatives"



e.g. pa?a-nt
tall-ptc
"The tall one (anin.)."

c. "Habitual aspect"

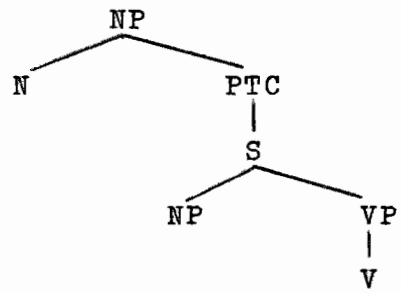


e.g. nɨɨ-k pagɨci tɨka-va-nt

I-K fish(ob) eat-fut-ptc

"I will eat fish (generally)."

d. "Object relatives"

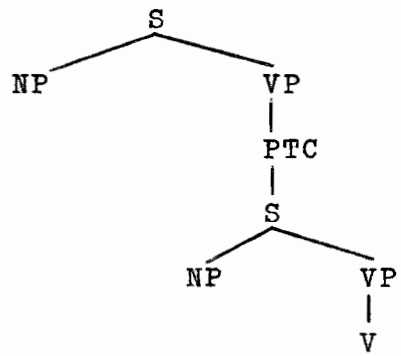


e.g. puus nɨɨni mavo?a-kai-n

cat I(ob) cover-perf-ptc

"The cat which I covered."

e. "Passive with Agent"



e.g. icɨ-k nɨɨni tɨka-kai-n

this-K I(ob) eat-perf-ptc

"This {is what I ate." / was eaten by me."}

Postpositioned relativization

When the head noun is coreferential with the object of a postposition in the relative clause, the latter surfaces in the form of a special relative pronoun, /pɨ-/. In a transformational account the embedded noun is thus pronominalized rather than deleted.

Verbs in postpositional relative clauses take the participle ending -na, as in object relative clauses, since in both cases there is an embedded subject of the verb (distinct from the head noun). Examples:

(149) a. wii tukuavi-a-n pɨ-w cikwɨ-kai-n
knife meat-ob-I Rel-with cut-perf-ptc
kɨwa-ga
edge-have
"The knife I cut the meat with is sharp."

b. John kahoni nopavi pɨ-ɨpa?a-tu-kai-n
John box(ob) eggs(ob) Rel-in-plob-perf-ptc
taŋa-va
kick-fut
"John will kick the box the eggs are in."

c. tɨkatɨa puusi pɨ-vaan karɨ-kai-n jokoki-vɨ
table cat(ob) Rel-on sit-perf-ptc collapse-past
"The table the cat sat on collapsed."

/pɨ-/ refers both to animate and inanimate nouns, and is oblivious to the function (in the main clause) of the noun phrase in which it's embedded.

Note the use of the postposition as verb, in (149b) (see section 2.23).

2.34 Nominalization

In section 2.211 I discussed one form of nominalization which, though fairly productive, was somewhat idiosyncratic. The /-pɨ/ forms given there seem to parallel the set of deverbal nouns which for English Chomsky (1970) advocated

storing in the lexicon (amusement, theft, etc.). Chemehuevi has an entirely productive nominalizing suffix /-na/ as well, corresponding more to the English -ing forms (amusing, stealing, etc.) which Jackendoff has recently suggested also be in the lexicon (to appear). Likewise I will propose that -na forms constitute part of the paradigm of each verb in the lexicon. Unlike for -pɨ, lexical redundancy rules involving -na will be completely general and virtually costless.

Examples of nominalizations with -na, in subject and object positions, are given below:

(150) a. nɨɨ-k nukwi-na-aŋ putucuga-vɨ
I-K run-nml-he know-past
"I knew he ran."

b. Anni-a-n tɨnia-vɨ pipicɨ-va-na-uŋ
Ann-ob-I tell-past arrive-future-nml-he
"I told Ann he would come."

c. John Anni karɨtɨa-j kɨaw taŋa-kai-n putucuga-j
John Ann(ob) chair-ob yesterday kick-perf-nml know-pres
"John knows Ann kicked the chair yesterday."

d. kacu-an sumai-vɨ-wa tɨka-va-na-n
not-I remember-past-neg eat-fut-nml-I
"I didn't remember to eat."

e. kani?i-wa?i-na-n ha?ɨsuntui-j
visit-go-nml-I like-pres
"I like going to visit."

f. kacu-auk tɨvisampa-tɨ-ap Johni
not-it (?) true-habit(ptc)-neg John(ob)

puusi puni-kai-n
cat(ob) see-result-nml

"It's not true that John saw the cat."

Verbs with the suffix -na translate in the present tense (relative to the tense of the main clause) if they have no tense suffix (-jɨ is prohibited with -na). -na cooccurs with future -vaa and perfect -kai (but not -vɨɨ); it follows tense-aspect markers and precedes postfix pronouns. Semantic subjects of these embedded verbs are in the oblique case. If coreferential with the subject of the main verb they are omitted (though for some verbs the omission is optional).

In many cases the difference in meaning between -pɨ forms and -na forms is not obvious. Compare for example (150e) above with (22 c) in section 2.211; also (150c) above with (22 a). Syntactically they differ in several respects, however. Forms with -pɨ do not contain tense suffixes, and they take the oblique ending -a when used as verb complements. Forms with -na have no "oblique case". -pɨ forms seem quite noun-like in that their "subjects" behave like possessors, optionally appearing in full and postfix form simultaneously (e.g. (22 a,b) in section 2.211). This is true of all normal possessive constructions (see section 2.214), (e.g. nɨɨni moo ~ moa-n ~ nɨɨni moa-n "my father"). Forms with -na however do not allow this dual occurrence of their subject, as exemplified in (151) below. Neither do finite verbs

in main clauses (unless the word order is changed--see section 2.4).

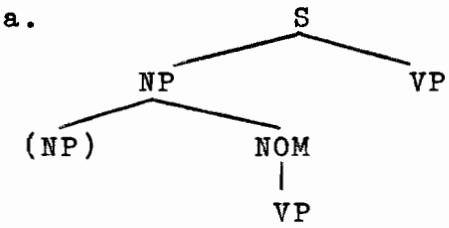
(151) John putucuga-j { niini tika-va-n / tika-va-na-n / *niini tika-va-na-n }

John know-pres (I(ob)) eat-fut-nml-(I)

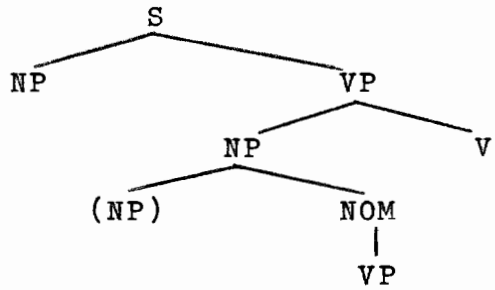
"John knows I will eat."

Forms in -na therefore will be treated as originating in the deep structure as VPs, embedded under a NOM node. The NOM itself, together with an optional "subject" is an NP. Structures for NOMs in subject and object position are given in (152a) and (152b) respectively:

(152) a.



b.



There are two verbs which are exceptions to the above generalizations on complements, namely, think, mai--nii, and say, mai (which are related to each other). The clauses of these two verbs may be nominalized, but they may also contain normal finite verbs and nominative subjects instead. Examples illustrate this in (153) below:

(153) a. pa?a-jɨ-aŋ aipac aŋ mai-ka-n
tall-pres-he boy that say-pres/past-I
"I say the boy is tall."

b. nɨɨ kac mai-wa?i-ni John puusi puni-ka
I not think-neg John cat(ob) see-result
"I don't think John saw the cat."

c. nɨɨ-k {punkuc / punkuci} ontokwa-rɨ-m mai-vɨ
I-K {dog / dog(ob)} brown-hab(ptc)-anim say-past
"I said the dog was brown."

d. nɨɨ-k pa?a-ntɨ-m na-mai-ka-ni
I-K tall-hab(ptc)-anim reflex-think-pres/past
"I thought I was tall."

e. haŋ puŋkuc ontokwa-rɨ-m mai-k ??
who dog brown-hab(ptc)-anim say-pres/past
"Who said the dog is brown?"

These are not instances of direct quotation, since coreference in the embedded subject does not result in a first person pronoun (unless the main subject was first-person). They also do not look like likely candidates for parenthetical verbs since they are not restricted to present tense and first-person.

I will handle these verbs simply by marking them as optionally being inserted in: $^{VP}[X\ S\ X\_\_X]$. Most other verbs are negatively marked for this environment.

2.4 Word Order

Sentence word order in Chemehuevi enjoys a fairly high degree of freedom. Many constituents of a sentence may be

fronted, extraposed, or internally scrambled with no apparent change in meaning, or even focus, necessarily. However, word order is not totally free--Chemehuevi has only two syntactic cases, and numerous order constraints help keep ambiguity within tolerable limits.

In (154) below examples are given of simple sentences which demonstrate the range of word order possibilities. (For clarity I will use lower case terms in the schemata in (154) to indicate constitutents which are postfixes.) Some general constraints are given in (155):

(154) a. SUBJ VB

nɨɨ nukwi-vɨ
I run-past
"I ran"

b. VB-subj

nukwi-vɨɨ-n
run-past-I
"I ran"

c. SUBJ OBJ VB

nɨɨ puusi maga-vɨ
I cat(ob) give-past
"I gave a cat."

d. OBJ-subj VB

puusi-a-n maga-vɨ
cat-ob-I give-past
"I gave a cat."

e. SUBJ VB OBJ

nɨɨ maga-vɨ puusi
I give-past cat(ob)
"I gave a cat."

f. VB-subj OBJ

maga-vɨɨ-n puusi
give-past-I cat(ob)
"I gave a cat."

g. SU OB OB ADV VB nɨɨ mamɨ maka-j kɨaw
I them(ob) it-ob yesterday
maga-vɨ
give-past
"I gave it to them yesterday."

h. SU OB OB ADV VB nɨɨ maka-j mamɨ kɨaw maga-vɨ
"I gave it to them yesterday."

i. SU ADV OB VB OB nɨɨ kɨaw maka-j maga-vɨ Johni
"I gave it to John yesterday."

j. SU OB OB VB ADV nɨɨ Johni maka-j maga-vɨ kɨaw
"I gave it to John yesterday."

k. SU OB ADV OB VB nɨɨ maka-j kɨaw Johni maga-vɨ
"I gave it to John yesterday."

l. SU ADV OB OB VB nɨɨ kɨaw mamɨ maka-j maga-vɨ
"I gave it to them yesterday."

m. SU OB ADV VB OB nɨɨ maka-j kɨaw maga-vɨ mamɨ
"I gave it to them yesterday."

n. OB-su OB ADV VB mamɨ-a-n maka-j kɨaw
them-ob-I it-ob yesterday
maga-vɨ
give-past
"I gave it to them yesterday."

o. ADV-su OB VB OB kɨawi-n maka-j maga-vɨ
yesterday-I it-ob give-past
mamɨ
them
"I gave it to them yesterday."

p. ADV-ob-su OB VB kɨawi-ika-n maŋa-j
yesterday-this-I him-ob
maga-vɨ
give-past
"I gave this to him yesterday."

q. SU VB-ob-ob ADV nɨɨ maga-vɨɨ-wa?i-ika-iŋ
I give-past-neg-it-him
kac
not
"I didn't give it to him."

(155) Constraints:

a. SUBJECT, when free (i.e. unbound) must be first in the sentence. Putting it anywhere else in the above sentences results in an ungrammatical string.

b. SUBJECT, when bound (i.e. postfixed), must be attached to the first word in the sentence. Attaching anywhere else makes it ungrammatical.

c. VERB is either last in the sentence or next to the last. Only one full word may follow it, though there may be postfixed pronouns on the verb as well.

d. Except for constraint (b), pronoun postfixes may appear anywhere in the sentence, on any lexical category, up to two in a row. (Three pronominal postfixes in a row, or two attached to a pronoun, are not allowed.) The one exception is that no pronominal postfixes may attach to the SUBJECT (free). Any personal pronoun may appear in either full or postfix form.

Sentences which are slightly less simple exhibit somewhat different constraints, largely with respect to the subject. One set of such sentences involves the use of a "copy" pronominal postfix, co-occurring (and agreeing) with the subject

of the sentence. Any full (non-bound) subject, including proper nouns, common nouns and pronouns, may co-occur with a copy postfix with no change in meaning. This postfix may attach to any type of constituent except the subject itself, which prohibits pronominal postfixes. Examples in (156) illustrate the use of this postfix.

(156) a. nukwi-vɨɨ-n nɨɨ = nɨɨ nukwi-vɨ
run-past-I I I run-past "I ran."

b. kacu-aŋ aipac aŋ nukwi-vɨɨ-wa
not-he boy that run-past-neg
= aipac aŋ kac nukwi-vɨɨ-wa
"That boy didn't run."

c. wihi-a-uŋ nɨɨni maga-vɨ John uŋ
knife-ob-he me give-past John that
= nɨɨni wihi maga-vɨ
"John gave me a knife."

d. pagɨci-a-uŋa-n maga-vɨ Ann uŋ
fish-ob-she-me give-past Ann that
= Ann uŋ pagɨci nɨɨni maga-vɨ
"Ann (that one) gave me a fish."

The constraints in (155) must now be amended as follows:

(157) a. When the subject occurs in both full and bound form (both representing the same subject) in a sentence, the latter (i.e. postfix) obeys constraint (155b). The full subject form is free to appear anywhere in the sentence except sentence-initially. Constraint (155c) still holds--i.e. the subject (full) may come after the verb if no other full words do.

b. The subject may not appear twice as a postfix or twice as a full noun.[31]

It is not obvious how the subject "copy-pro" should be handled in the grammar. Since it is not phonologically the same as the full subject, proposing a transformational rule to "create" the copy would, it seems to me, entail a second lexical look-up. I would prefer to generate it originally in the deep structure, perhaps by modifying Phrase Structure Rule 3 in section 2.1 by adding the expansion

$$NP \rightarrow NP\ NP,$$

where one of the NPs has a postfix pronoun inserted under it. (In a grammar with no deletion, one might want to use such an expansion for appositive nouns as well, e.g. for "John, my brother".)

The next series of complications arises when modified nouns are considered. Expanded noun phrases enjoy some degree of freedom, e.g. adjectives (participles) and demonstratives may precede or follow the noun they modify, with no difference in meaning. However constituents within a noun phrase may not be separated. With the exception of bound (postfix) pronouns and other affixes, nothing intrudes between modifier and noun. Examples with expanded NPs are given in (158) and (159), and constraints thereby entailed are listed in (160). (Demonstratives, which are equivalent to third-person pronouns (see section 2.214) have certain peculiarities of their own.)

(158) Expanded NPs (nominative case):

a. nɨɨni moa-n = moa-n = nɨɨni moo
<u>my</u> <u>father</u>-<u>my</u> "my father"

b. iŋ aipac = aipac iŋ
this boy

c. mar hokont karɨtɨa = hokont ar karɨtɨa
that big chair big that chair

d. aipaci aŋa-j wii
boy(ob) that-ob knife

= aipaci aŋa-j wihi-aŋ
boy(ob) that-ob knife-his

"that boy's knife"

e. maŋa-j juhugantɨ-mɨ nainci nagap
that-ob fat-anim(ob) girl(ob) shawl
"that fat girl's shawl"

f. owasiakar pampɨn?i-n = nɨɨni owasiakar pampɨn?
gold pot-my
"my gold pot"

(159) a. wahaku-a-n totoci-vɨ punikai-vɨ
two-ob-I head-pl(ob) see-past
"I saw two heads."

b. puusi aŋa-ja-n maga-vɨ
cat(ob) that-ob-I give-past
"I fed that cat."

c. nukwi-ka-aŋ aipac aŋ pa?antɨ-m aŋ
run-pres-he boy that tall-anim that
[copy / pro]

"That tall boy is running."

(160) Constraints

a. Only affixes or postfixes may intervene between a modifier and head noun.

b. If a noun is followed by a demonstrative, any adjective modifying it is also followed by an identical demonstrative.[32]

c. The constraint regarding pronominal postfixes on subjects is relaxed to allow possessive postfixes.

d. Within a NP, a full possessive cannot immediately precede a demonstrative which is not its own, nor can it precede a noun immediately followed by a demonstrative, i.e. "his knife" can not be *iŋa-j wii ic, or *iŋa-j ic wii, only iŋa-j wii his-ob knife.

e. A possessive postfix attaches only to the head noun, never the modifying adjective or demonstrative.

f. A full possessive must be first in the NP, i.e. unless it's a postfix it precedes all other modifiers as well as the head.

g. A bound subject or subject copy-pro in a sentence beginning with an (object) noun followed by its own demonstrative, attaches to the demonstrative, not the noun. In all other cases it attaches to the first phonological word of the sentence.

h. The one-post-verbal word constraint must be relaxed to allow NPs with modified nouns, i.e. changed to allow one post-verbal constituent.

Postpositional phrases in Chemehuevi, like NPs, have fairly rigid internal structure, though like NPs and Advs they may scramble around in the sentence. Within the phrase the postposition is always attached either to the head noun itself or to an appositive pronoun stem (see section 2.23). The choice is optional, does not seem to reflect a meaning difference, and is independent of whether the head noun is modified or not. Examples of postpositional phrases follow in (161); the constraints are listed in (162) below:

(161) a. kupi-ja-iŋ tɨkatɨa-va wacɨ-mpa
coffee-ob-he table-at put-fut
"He will put the coffee on the table."

b. nɨ-rua-aŋ kijasui-ka
I-at-he smile-pres
"He's smiling at me."

c. wii pagɨci uŋa-ruk unika
knife fish(ob) he-under is
"The knife is under that fish."

d. pagɨc maka-j pa-upa unika
fish that-ob water-in is
"The fish is in that water."

(162) a. Nothing may intervene between the NP (object of the postposition) and postposition, or NP and pronoun plus postposition, except affixes (postfixes, or enclitics).

b. The postposition must be attached to the head noun or to an appositive pronoun stem (which agrees with the head noun and which, in the case of inanimates, is a special suppletive stem--see section 2.212).

c. Nothing in the NP follows the postposition.

c. All case suffixes are "deleted" from anything to which a postposition is affixes.

Interrogatives do not complicate matters at all. Yes-No questions are all formed by the enclitic -ra, which attached to any first word (co-occurring optionally with K, which it precedes). WH-questions substitute different interrogative pronouns for various constituents, including two different VP interrogative forms. They are frequently fronted, but so are the constituents they replace. In both kinds of interrogatives all the normal word-order constraints are neatly adhered to. Tag questions always consist simply of ending the sentence with hɨnaa (roughly equivalent to n'est-ce pas). (See section 2.24.)

One more set of complications arises in simple sentences when the special enclitic marker, which is referred to here as K (phonologically -ukV; final vowel undeterminable), is introduced. K can optionally appear in almost any sentence, provided the word order is such that K's own constraints can be met. I am not certain exactly what K is; it is prohibited in imperatives, required in certain kinds of cleft sentences, obligatory in predicate nominative constructions with no overt copula, and obligatory with at least one aspect (which without K in the sentence is interpreted as an active participle). (See section 2.225.)

In this work I have somewhat arbitrarily assigned K to the verb-phrase. Its Deep Structure position (linear) is unimportant since a late transformation must move it (and all other enclitics) to a position immediately after the first "word" (or alternatively an output constraint must determine that that's where it is). Use of K is illustrated in (163), and constraints pertinent to it are given in (164):

(163) a. nɨɨ-K nukwi-vɨ
I-K run-past
"I ran."

b. icɨ-k wii
this-K knife
"This is a knife."

c. pa?antɨ-mɨ-k aipac nukwi-j
tall-anim-K boy run-pres
"The tall boy is running."

d. kacu-k nukwi-vɨ-wa

not-K run-past-neg

"You didn't run."

e. tɨka-rɨ-k nɨɨ

eat-habit-K I

"I eat."

f. pagɨci-ja-uk maŋ tɨka-mi-nt

fish-ob-K he eat-past-habit

"He used to eat fish."

(164) a. If the main verb is HABITUAL[33] (present, past, or future), or if the subject is second-person (which is often deleted in a sentence with K)[34], then any word may appear first in the sentence with K attached to it. The subject NP is then free to (though not required to) move anywhere in the sentence.

b. In all other sentences with K, it must be attached to the first word of the subject NP (which therefore must be sentence-initial). (I.e. K does not appear in the same sentence as a subject copy-pro or bound subject.)

Complex sentences complicate the constraints on word-order in two ways: (1) "embedded clauses" (including S, PTC, NOM, or SUBORD) may appear at the end of a sentence after the verb. (2) Some clauses show up at the beginning of a sentence in violation of the subject constraints. Most examples of this consist of complements of the two (related) verbs think and say, which may optionally appear in non-nominalized form. Whereas all other verb complements have subjects in the oblique case and verbs with nominalizing suffixes, the clauses of say and think can contain normal finite verbs and nominative subjects (as stated in section 2.34

above). These clauses (which I analyze as S, not NOM) may appear as a unit anywhere in the main sentence (except in the middle of another NP). Other than these, examples which violate subject constraints are extremely rare.[35] By and large, such violations are judged ungrammatical. Therefore the original constraints (155a) and (155b) are amended as follows:

(165) In a sentence with no K and no copy-pro, the subject is either first in the sentence or attached to the first word (plus postnominal Dem). The only exception in either case is that clauses dominated by S (or SUBORD--see footnote 35), may precede in the sentence.

Other embedded clauses (namely NOMs, PTCs and SUBORDs) behave somewhat like NPs--the subject (non-nominative) remains contiguous to the (nominalized or participialized) verb, nothing intervening except the bound subject of the matrix sentence. Sentences in (166) demonstrate possible ordering in complex sentences:

(166) a. nɨɨ-k Anni pipicɨ-n putucuga-vɨ
I-K Ann(ob) come-nml know-past
"I knew Ann came."

b. Anni-a-n pipicɨva-n putucuga-j
Ann-ob-I come-fut-nml know-pres
"I know Ann will come."

c. Anni-a-n tɨnia-vɨ pipicɨ-va-na-uŋ
Ann-ob-I tell-past come-fut-nml-him
"I told Ann he would come."

d. paʔa-jɨ-aŋ aipac aŋ maika-n
tall-pres-he boy that say-I
"I say that boy is tall."

e. pipicɨ-va-na-n sumai-vɨ
come-fut-nml-I remember-past
"I remembered to come."

f. puusi-a-n sɨja?i-cɨ mavo?a-mpɨ
cat-ob-I cold-ptc(ob) cover-past
= puusi-a-n mavo?a-mpɨ sɨja?i-cɨ
"I covered the cat which was cold."

g. puusi-a-n punikai-vɨ mavo?a-kai-na-n
cat-ob-I see-past cover-result-ptc-I
"I saw the cat (which) I covered."

h. tɨkatɨa puusi pɨ-vaan karɨ-kai-n
table cat(ob) which-on sit-result-ptc
jokoki-vɨ
collapse-past
"The table the cat sat on collapsed."

Summary of constraints

1. In a sentence with no K and no copy-pro of the subject, the SUBJECT is first in the sentence, except that it may be preceded by clauses dominated by S or SUBORD.[36]

2. In a sentence with no K, a bound SUBJECT (whether it's a copy-pro or not) must be attached to the first word unless the sentence begins with noun plus demonstrative, in which case the bound subject is postfixed to the demonstrative. (Clauses dominated by S or SUBORD may precede the "first" word.)

3. The VERB, in addition to any affixes it may have, may be followed in the sentence by one and only one constituent, e.g. a NP, S, or Adv.

4. No more than two pronouns may appear together in a word, (as postfixes on another word or as a single postfix plus independent pronoun). (See end of this section for constraints on the order of these postfixes.)

5. No pronominal postfix (copy or otherwise) may attach to the (full) subject except for possessive pronouns modifying the subject.

6. Only one K can occur in a sentence, and it cannot co-occur with a bound subject in the main clause, whether copy-pro or not.

7. The same subject cannot occur bound twice in the same sentence; i.e. if there's a copy-pro, the subject itself must be full (unbound).

8. Nothing may intervene between a noun and its modifiers except enclitics and pronominal postfixes arising from other NPs.

9. If a noun is followed by a demonstrative, any adjective (participle) modifying it must also be followed by an identical demonstrative.

10. A full (unbound) possessive cannot immediately precede a demonstrative which is not its own (i.e. does not modify the possessive), nor can it immediately precede a noun which itself immediately precedes a demonstrative, within the same NP.

11. A possessive postfix attaches only to the head noun, never the modifying adjective or demonstrative.

12. A full possessive must be first in the NP; i.e. unless it's a postfix, it precedes all other modifiers as well as the head.

13. A postposition is affixed either to the head noun of its object, or to a pronominal stem agreeing with the head. In either case nothing intervenes between the object NP of the PP and the postposition (or pro plus postposition).

14. A postposition always follows its entire object NP.

15. In a sentence with K, if the main verb is HABITUAL or if the subject is second person the subject is not required to be sentence-initial.

16. K, like all enclitics, must be on the first phonological word of the sentence, with no exceptions.

Analysis

The following transformational rules[37] introduce limited freedom in sentence order; output constraints will restrict the permissible orderings:

(167) <u>Permutation rules</u>

1. $(NP)^* \ (SUBORD) \ (\left\{\begin{matrix} PP \\ Adv \end{matrix}\right\})^* \ (S) \ (NP)^* \ (V)$

SD:

SC: $\underbrace{\qquad\qquad\qquad\qquad\qquad\qquad\qquad\qquad}$

(Notation used to indicate optional scrambling of all named constituents, with respect to each other. This rule scrambles everything between, but not including, Conj (=haita-) and Q. Ordering within each constituent is not affected.)

2. $\begin{bmatrix} +pro \\ +bnd \\ -prefix \end{bmatrix} \quad - \quad \left\{\begin{matrix} PTC \\ N \\ Num \\ D \end{matrix}\right\}$

SD: 1 2

SC: 2 + 1

Cond: optional

(This rule allows postfix pronouns to intrude into NP constituents.) (May reapply, moving postfix anywhere in NP.)

3. $^{NP}[\ X - N - Y - PTC \ (D) - \ ]$

SD: 1 2 3 4 5

SC: 1 4 2 3 5

(Optionally reorders participle (plus demonstrative) to prenominal position.)

4. $_{S}\left[\left\{\begin{matrix} +N \\ +V \\ +Adv \\ +Num \end{matrix}\right\} \left(\begin{bmatrix} +bnd \\ -prefix \end{bmatrix}\right)^* - X - \begin{bmatrix} +bnd \\ -pro \\ -prefix \\ -suffix \end{bmatrix} - Y \right]$

SD: 1 2 3 4

SC: 1 + 3 2 4

Cond: obligatory

(Obligatorily moves all enclitics to position immediately after first word.)

The constraints listed on p.192 can now be implemented fairly easily by the output conditions in (168) below, stated in the form of "templates" or matching filters. I am assuming a model of output conditions in which both positive and negative templates are employed (i.e. some templates must be matched and others, if matched, result in the sentence being discarded). Presumably a grammar could be constrained to include only one or the other by somewhat increasing the complexity and number of the statements. I am allowing both positive and negative at this point for the sake of simplicity and transparency. (See p.199 below for further discussion of templates.)

Positive templates of the sort used here will be written somewhat like transformations in that they may contain a "structural description" as well as a "structural constraint". In order for example to force all sentences with subjects to obey the subject constraints and still allow intransitive imperatives without subjects, the conditions are written to include a statement to the effect that "<u>if</u> a sentence contains a [+nom] (S $\supset$ [+nom]), <u>then</u> it must be analyzable as X". The only other way to write positive templates to handle this would be to bracket two or more--"<u>either</u> an S must be $\{$X, <u>or</u> Y (Y $\not\supset$ [+nom])$\}$". Negative templates apply to all sentences (note that elements in parentheses in negative templates mean the sentence is bad with or without the contents).

(168) <u>Output Conditions</u>

A. No S may contain:

$$*[+pro]\begin{bmatrix}+pro\\+bnd\end{bmatrix}\begin{bmatrix}+pro\\+bnd\\-prefix\end{bmatrix}$$

(Constraint #4)

B. Any S with $\begin{bmatrix}+N\\+nom\end{bmatrix}$ and no -<u>K</u> must be:

$$_{S}\left[\left(\left\{\begin{matrix}S\\[NP\ VP]\\SUBORD\end{matrix}\right\}\right)\left\{\begin{matrix}\begin{bmatrix}+NP\\+nom\\-bnd\end{bmatrix}\\\left\{\begin{matrix}\begin{bmatrix}\{PTC\\N\}\\-nom\end{bmatrix}\\V\\Adv\\N\ Post\end{matrix}\right\}\left(\left(\left\{\begin{matrix}[+bnd]*\\{}^{D}\begin{bmatrix}+pro\\-nom\end{bmatrix}\end{matrix}\right\}\right)\begin{bmatrix}+N\\+nom\\+bnd\end{bmatrix}\right)\end{matrix}\right\}X\right]$$

(Constraints #1,2)

C. Any S which is $_{S}[X\ {}^{VP}[X\ V\ X]\ X]$ must be:

$$_{S}[X\ V\ (\{K\ [+bnd]*\})\ (\{S\ NP\ Adv\ Q\})\ ]$$

(Constraint #3)

D. If there exists $\begin{bmatrix}+N\\+nom\\-bnd\end{bmatrix}\begin{bmatrix}+pro\\+bnd\\-prefix\end{bmatrix}$, then it must be:

$$\begin{bmatrix}+N\\+nom\\-bnd\end{bmatrix}\ {}^{D}\left[\ NP\left[\ \begin{bmatrix}+pro\\+bnd\\-prefix\end{bmatrix}\ \right]\ \right]$$

(Constraint #5)

E. No S may contain:

$$*\left\{K\begin{bmatrix}+nom\\+bnd\end{bmatrix}\right\}X\left\{K\begin{bmatrix}+nom\\+bnd\end{bmatrix}\right\}$$

(Constraints #6,7)

F. No S may contain:

$$* \left\{ \begin{array}{l} {}^{NP}[X\ N\ {}^{D}[Pro]\ PTC] \\ {}^{NP}[X\ PTC\ N\ {}^{D}[Pro]] \end{array} \right\}$$

(Constraint #9)

G. No S may contain:

$$* \ {}^{NP}[X\ {}^{D}[\ {}^{NP}[\alpha\ F]\ ]\ X\ {}^{D}[\ {}^{NP}[-\alpha F]\ ]\ X\ ]$$

where F = [vis], [sing], [anim] or [nom]

(Constraint #9)

H. No S may contain:

$$* \ {}^{NP}[\ {}^{D}[NP]\ N\ {}^{D}[Pro]\ X\ ]$$

(Constraint #10)

I. Any S which contains [+post] must be (for every post):

$$_{S}[\ X\ _{PP}[\ X \begin{bmatrix} +N \\ +prefix \end{bmatrix} [+post]\ ]\ X\ ]$$

(Constraints #13,14)

J. No S may contain:

$$* \ _{S}[\begin{bmatrix} +bnd \\ -prefix \end{bmatrix} X\ ]$$

K. No S may contain:

$$* \ [+imp]...K$$

L. Any S with K must be:

$$\left\{ \begin{array}{l} _{S}[X\ [+nom]\ -K\ X] \\ _{S}[X \left\{ \begin{array}{l} {}^{VP}[X \begin{bmatrix} +V \\ +HABIT \end{bmatrix} X] \\ {}^{NP}[\ \begin{bmatrix} II\ pers \\ +nom \end{bmatrix}\ ] \end{array} \right\} X] \end{array} \right\}$$

(Constraint #15)

M. Any NP containing $^{Poss}\begin{bmatrix} NP \\ -bnd \end{bmatrix}$ must be:

$$^{NP}[\ ^{D}[\ ^{Poss}\begin{bmatrix} NP \\ -bnd \end{bmatrix}\ ]\ X\ ]$$

(Constraint #12)

N. Any NP containing $^{Poss}\begin{bmatrix} NP \\ +bnd \end{bmatrix}$ must be:

$$^{NP}[\ X\ \begin{bmatrix} N \\ -bnd \end{bmatrix}\ ^{D}[\ ^{Poss}\begin{bmatrix} NP \\ +bnd \end{bmatrix}\ ]\ X\ ]$$

(Constraint #11)

O. No NP may contain:

$$*\ ^{NP}[\ X\ ^{D}[\ ^{Poss}\begin{bmatrix} NP \\ \alpha bnd \\ \beta F \end{bmatrix}\ ]\ X\ ^{D}[\ ^{Poss}\begin{bmatrix} NP \\ \alpha bnd \\ -\beta F \end{bmatrix}\ ]\ X\ ]$$

where F = [vis], [sing], [anim] or [pers].

(Constraint #8 is met in the permutation rules 1, 2 and 4 in (167) above; rule 4 also takes care of constraint #16.)

Postfix pronoun order

In the first part of this section it was observed that postfix forms of personal pronouns in Chemehuevi may attach to any word in the sentence (subject to various word-order constraints). When two such postfixes are found on a single word a rigid order is maintained between them--that order being determined not by function (subject vs. object) but by such features as person, animacy, etc.

The following orderings and cooccurrence restrictions apply to such sequences of postfixes:

1. The maximum length of such a sequence is two, unless the word they're "attached" to (i.e. the first non-bound morpheme to the left) is a pronoun, in which case the sequence is limited to one.

2. First- and second-person pronouns may not co-occur: $*\begin{Bmatrix} I \\ II \end{Bmatrix}\begin{Bmatrix} II \\ I \end{Bmatrix}$ (with each other or with themselves).

3. A third-person pronoun may not follow a first- or second-person pronoun: $*\begin{Bmatrix} I \\ II \end{Bmatrix}$ III

4. An inanimate pronoun may not follow an animate one: *an in

5. A 3rd-person animate plural pronoun may not precede another 3rd-person pronoun (plural or singular). In the case of pl-pl sequences, I see no evidence of "number-dissimilation" in Chemehuevi[38]--they're simply blocked. The constraint is not applicable to inanimate pronouns, apparently since they never overtly reflect number. (However there have to be number features on them since they trigger number-agreement rules on verbs.)

6. Two 3rd-person pronouns may not differ in "visibility" (or "proximity"), which is actually a trinary feature.

Perlmutter[39] has proposed that a notation he uses in describing enclitic order in Spanish is universally applicable. He hypothesizes that in any language which allows enclisis there will be constraints on the relative order in a sequence of clitics, which are statable <u>only as surface structure constraints</u>. (He demonstrates why this must be so in Spanish and French.) Furthermore, he claims that such surface structure constraints must always be stated as a positive matching filter consisting of a strictly ordered string of "slots", each slot representing some set of morphemes. A sentence may contain a sequence of these morphemes only if (a) no more than one is taken from each slot, and (b) the order matches

the slot order in the template, or a subset of those slots. Any or all slot(s) may be left out of a sentence. Since the domain of the template (any continuous sequences of clitics) is completely specified (no Xs or Ys) sentences with the wrong order of morphemes will not be able to slip through via the slot-optionality condition.

Applying Perlmutter's chart notation to Chemehuevi gives the following template for order of person:

(169) $\text{III} \left\{ \begin{matrix} \text{II} \\ \text{I} \end{matrix} \right\}$

Unlike Spanish, Chemehuevi allows a sequence of two third person postfixes, however the first must be singular (if animate), the two may not differ in "proximity", and if the second is animate the first must be too. The template given below seems the simplest way to handle the III person constraints:

(170) $\begin{matrix} \text{III} & \text{III} & \text{III} \\ \text{in} & \left\{ \begin{matrix} \text{sing} \\ \text{in} \end{matrix} \right\} & \text{an} \end{matrix}$

This allows in-in, in-an, or an-an (providing the first animate is also singular).

Adding the proximity constraint and the other persons gives:

(171) $\begin{matrix} \text{III} & \text{III} & \text{III} & \left\{ \begin{matrix} \text{II} \\ \text{I} \end{matrix} \right\} \\ \alpha\text{vis} & \alpha\text{vis} & \alpha\text{vis} & \\ \text{in} & \left\{ \begin{matrix} \text{sing} \\ \text{in} \end{matrix} \right\} & \text{an} & \end{matrix}$

In addition to this template there must be an output condition limiting the size of the sequence to two (or one, after a full pronoun), namely:

$$* \quad \text{pro} \quad \underset{[+\text{bnd}]}{\text{pro}} \quad \underset{\begin{bmatrix}+\text{bnd} \\ -\text{prefix}\end{bmatrix}}{\text{pro}} \quad \text{(Output Condition A, in (168).)}$$

This says a string of three pronouns is prohibited (whether or not the first is bound) provided they're all in the same word; i.e. if the last pro were a prefix attached to some following stem and was preceded by a word-boundary we would not want the sequence to be thrown out.

Footnotes

[1]In some cases absolutives drop from the second member of a compound if the first member "possesses" the second; e.g. /wanaa-vɨ/ "web", but hokoso?a-wana "spider-web".

[2]At least synchronically.

[3]This does not include the purely semantic use of diminutive -ci, which definitely adds the meaning of "little" to the noun, unlike the more formal, absolutive -ci. The diminutive suffix is freely added to inanimate nouns, e.g. wihi-c "little knife", but is syntactically different in that it does not delete in the environments absolutives do, e.g. nɨni puŋku-ci-n is acceptable only if translated "my little dog".

[4]Others do optionally: puŋku-ci-gai-ga "having/being a dog" (with verbalizing suffix -gai), ~ puŋku-gai-ga.

[5]Some of the semantic rules may not look strictly "semantic", but I'm not convinced the distinction is critical. See also discussion, p. 79.

[6]My only examples are all "nasalized" or "spirantized", though Harrington (1969) gives examples with -pɨ as well.

[7]The suffix -ci is still morphologically distinct from the phonologically identical absolutive -ci, since the latter deletes when possessed, the former does not (see example (3) above, and footnote 3).

[8]As far as I can tell, the choice of the suffix for a given noun is idiosyncratic.

[9]Actually, the appropriate M rule for their particular absolutive suffix.

[10]Again, I'm not concerned with efficiency or elegance in semantic features here, only that these categories are distinct, and must be accounted for somehow.

[11]Adjectives are all verbs in Chemehuevi.

[12]A separate feature will be used for suffixes--both are needed for the three-way distinction "prefix", "suffix", and "postfix" (see section 0.4 for discussion of terms).

[13]Think is derived from mai- say, using an aspect-like (post-tense) morpheme -ni, (possible historically related to the continuative -ni?i (see section 2.223)). A few other verbs are derived with this morpheme, e.g. ɨvi...ni bad.

[14]See Munro (1974a) for a suggestion of why imperatives take nominative objects. Compare with section 2.26 in this paper.

[15]Several morphemes with initial t- (e.g. the participle suffix /-tɨ/ undergo a rule changing t -→ c after i. This rule does not apply to all morphemes (e.g. /-tu/, plural object marker on verbs, never changes), and for some the rule does not hold in all situations. For example the "causative" /-tu?i/ has the form -cu?i after nouns ending in i (as in (69b) above), but not after verbs, e.g. nukwi-tu?i (not *nukwi-cu?i) "make run".

[16]Color terms and a handful of others; e.g. thick tuŋku-ka.

[17]Sapir notes in So. Paiute a similar use of participles "in lieu of finite verbs", though in that language no K shows up.

[18]Final vowel undeterminable; also, the u assimilates to any preceding vowel but a (see section 1.33 on Phonology).

[19]Compare this with the further observation that while nonadjective participles used attributively or nominally must cooccur with a demonstrative pronoun, adjective participles need not--see e.g. (143a) vs. (143b) in section 2.33 below. Also, pa?a-ntɨ-m alone can mean "the tall one", but "the

running one" must be nukwi-c aŋ. (For distribution of the -m (/-ʔumɨ/) suffix, see section 2.214 on Adjectives.)

[20]Despite the glottal stop (which has peculiarities of its own) the u in this suffix assimilates to any preceding vowel but a. See section 1.33 on Phonology.

[21]She was only able to obtain examples with -vaa used as an imperative in negative sentences. MM has no such restriction, with the qualification that all her examples were felt to be less truly imperative in meaning.

[22]There is no compound form */vaʔa-na-tua/, though the na always occurs in the locational (noncompound) /vaʔa-na/. I have no explanation for this.

[23]For Yes-No and Information questions the sentence ends at about the same level as it begins. For declaratives it ends somewhat lower.

[24]The final, lengthened syllable also ends on a lower level--giving an exaggerated falling intonation contour. This same contour is given the tag-question morpheme (see section 2.243) as well.

[25]I.e. redundantly $\begin{bmatrix} \text{-prefix} \\ \text{-suffix} \\ \text{-pro} \end{bmatrix}$; see section 0.4 and section 2.212.

[26]By "syntactic" imperatives I mean sentences which not only translate as imperatives but also employ syntactic devices whose combination is unique to imperatives. For the use of particular tense suffixes as "semantic" imperatives, see section 2.227.

[27]The only exception is if the sentence contains the full subject pronoun "you" for emphasis (see D. below), it has priority over first position: e.g. mɨɨm ic tɨka-ka-ŋ
you(pl) this eat-pl-imp
"Eat this!"

[28]For two reasons: (a) mɨɨm is in the nominative--postfix pronouns (except possessors) are never allowed on nominative nouns, and (b) mɨɨm and -ja are coreferential, and nouns may not be suffixed by coreferential postfixes.

[29] Pamela Munro (1974a) observes that objects of imperatives use the -wa?aku form when conjoined, despite the fact that the first NP is in the nominative. Whatever one decides about the derivation, the reason this is so is obvious; using the nominative form results in the interpretation, "You, along with X, hit John!" (or whatever), rather than "Hit John and X!"

[30] These embedded subjects are in the oblique case.

[31] If one analyzed demonstrative modifiers as appositive pronouns then the constraint on the double appearance of full subjects would have to be restated (as it should be to include other instances of appositive nouns). One might simply say that two full (unbound) coreferential <u>pronouns</u> do not cooccur in the same clause.

[32] P. Schachter (p.c.) has pointed out this might argue for treating postnominal demonstratives as affixes since this looks very much like "agreement".

[33] I.e. a participle; see section 2.33.

[34] Or "replaced" by it--K is identical to one of the lexical entries for postfixed (nom) "you-sg." (see section 2.212).

[35] The other notable exceptions seem to be SUBORD clauses, moved to the front of the sentence:

puŋkuci huvitu-g aipac uŋ tɨka-vɨ

<u>dog(ob)</u> <u>sing</u>-<u>SUBORD</u> <u>boy</u> <u>that</u> <u>eat</u>-<u>past</u>

"While the dog sang, the boy ate."

[36] Actually only if SUBORD = NP VP. NP alone (N-gajaa) or VP alone (V-ga etc. for "like"-subjects) may <u>not</u> precede the (full) subject, etc.

[37] In general I am following conventions in Stockwell, Schachter and Partee (1973) for transformational rule notation, e.g. $X_{[Y]}$ will mean "Y <u>immediately</u> dominated by X," whereas $_X[Y]$ means only "Y dominated by X."

[38]Sapir claims this for So. Paiute.

[39]Deep and Surface Structure Constraints in Syntax, 1971.

REFERENCES

REFERENCES

Chomsky, Noam. 1965. Aspects of the theory of syntax. Cambridge, Mass.: MIT Press.

Chomsky, Noam. 1970. Remarks on nominalization. In Jacobs and Rosenbaum.

Chomsky, Noam, and Morris Halle. 1968. The sound pattern of English. New York: Harper & Row.

Halle, Morris. 1973. Prolegomena to a theory of word formation. Linguistic Inquiry 4:1.3-16.

Harms, Robert T. 1968. Introduction to phonological theory. Englewood Cliffs: Prentice-Hall.

Harrington, John P. Unpublished field notes.

Hooper, Joan B. 1973. Aspects of natural generative phonology. UCLA Ph.D. dissertation.

Jackendoff, Ray S. 1972. Semantic interpretation in generative grammar. Cambridge, Mass.: MIT Press.

Jackendoff, Ray S. To appear. Morphological and semantic regularities in the lexicon.

Jacobs, Roderick A. and Peter S. Rosenbaum. 1970. Readings in English transformational grammar. Waltham: Ginn and Company.

Kroeber, A. L. 1907. The Shoshonean dialects of California. UCPAAE 4.65-166.

Kroeber, A. L. 1909. Notes on Shoshonean dialects of Southern California. UCPAAE 8.235-69.

Laird, Carobeth. Unpublished field notes.

Laird, Carobeth. To appear. The Chemehuevis. Banning: Malki Press.

Laird, Carobeth. To appear. Not the yawning graves. Banning: Malki Press.

Lamb, Sydney M. 1958. Linguistic prehistory in the Great Basin. IJAL 24.95-100.

Lovins, Julie B. 1970. Towards a generative phonology of Southern Paiute. Ms.

Miller, Ronald D. and Peggy J. Miller. 1967. The Chemehuevi Indians of Southern California. Banning: Malki Press.

Munro, Pamela. 1974a. Imperative objects in Chemehuevi. Ms.

Munro, Pamela. 1974b. On the morphology of Shoshonean negatives. Ms.

Nichols, Michael J. P. 1973. Northern Paiute historical grammar. University of California, Berkeley Ph.D. dissertation.

Sapir, Edward. 1930. Southern Paiute, a Shoshonean language. Proceedings of the American Academy of Arts and Sciences 65:1-3.

Sapir, Edward. 1951. The psychological reality of phonemes. In Selected Writings of Edward Sapir in Language, Culture and Personality: pp. 46-60. Edited by David G. Mandelbaum. Berkeley: University of California Press.

Shopen, Tim. 1972. A generative theory of ellipsis: a consideration of the linguistic use of silence. Available from the Indiana University Linguitics Club, Bloomington, Ind.

Stirling, M. W. 1963. John Peabody Harrington, 1884-1961 (obituary). American Anthropologist 65.370-381.

Stockwell, Robert P., Paul Schachter and Barbara H. Partee. 1973. The major syntactic structures of English. New York: Holt, Rinehart and Winston.

Whorf, Benjamin L. 1935. The comparative linguistics of Uto-Aztecan. American Anthropologist 37.600-608.

APPENDIX

APPENDIX:

Lists of Words and Morphemes

The following word lists are intended to be practical only. They are included here to provide a key to words and morphemes cited thus far, to give a comprehensive list of all words and morphemes I have come across in my fieldwork for the purposes of those interested in comparative Uto-Aztecan etc., and (in the feature listings) to give whatever information I have about each word, particularly with regard to regularities and idiosyncracies of their paradigms. The Chemehuevi forms themselves provide more extensive exemplification of morpheme structure conditions, morphophonemic alternations, word derivation, etc.

These lists are not intended to illustrate the theoretical "lexicon" assumed in the grammar and sketched in section 0.3. The features used here often bear little relation to features discussed in the text, and the level of phonological representation these forms are given in is not the underlying level proposed in section 1. In particular, primary stress is marked on these forms although entirely predictable. Consonant mutation across morpheme boundaries is assumed to have applied, as is nasal assimilation, h-deletion, and various rules of neutralization. Low-level rules such as vowel-nasalization are not presumed to have applied. All morpheme-final vowels are preserved in these forms, but are given in

parentheses if they are ever actually deleted (i.e. if the morpheme can show up word-finally). Forms are given with the underlying vowel lengths marked; thus a word like ['kaam] jack-rabbit is given as KA'M(E).

The first listing is alphabetized by Chemehuevi forms, given in the second column. Symbols in the third column indicate whether the form is a noun, verb, adverb, postposition or interjection. Each Chemehuevi form is assigned an entry number, shown in the fourth column and keyed to the listing of feature matrices, beginning on page 260. (Items in the fifth column are to be ignored.)

The second listing is identical to the first, but alphabetized by English gloss.

The third listing contains only the feature matrices for each entry, and is in numerical order by entry number.

Key to Symbols and Features (see also section 0.4)

Chemehuevi forms:

E = ɨ

NG = ŋ

NK = ŋk

X--Y = discontinuous verb stem which inserts tenses and/or aspect markers between X and Y.

Borrowings from English which are pronounced as in English are written in English orthography, with the exception of the addition of a final (deletable) vowel. Such words will have "=ENG" in their feature matrix.

Features:

/XXX/YYY	=	XXX and YYY are variant forms of this entry.
/12/34/56/	=	(references to original field-note pages or other sources)
SEE 1234,5678,	=	entry numbers 1234 and 5678 are related to this form
< SPAN	=	word borrowed from Spanish
--N	=	stem is "nasalizing"
--S	=	stem is "spirantizing"
--G	=	stem is "geminating"
+V	=	stem is also a verb stem (used on post-positions and adverbs)
+TRAN	=	verb may take at least one argument in the oblique case, without a postposition
+S	=	verb may take a NOM as one of its NP arguments
-S-INC	=	verb may cooccur with S in the VP
+S-SUBJ	=	verb takes a NOM as its subject
+V-PREF	=	verb or suffix must have a verb prefixed to it
+OBJ-PREF	=	verb must have one of its objects pre-fixed to it
2-OBJ	=	verb may take two NP arguments in the oblique case (without postpositions), or one in the oblique case and one NOM
+ANIM-SUBJ	=	requires an animate subject
+MOT	=	is a verb of motion
+VMOT	=	cooccurs with (requires) a verb of motion
+RESULT	=	verb form is in the "resultative"; i.e. includes the suffix /-kai/
1419=-RESULT	=	entry number 1419 is the nonresultative form of this stem

+MOM	=	verb form is "momentaneous", either inherently or by some suffix
NGU=MOM	=	verb becomes momentaneous by the addition of /-ŋu/
1482=MOM	=	entry number 1482 is the momentaneous form of this (durative) stem
GA=DUR	=	verb becomes durative (i.e. [-mom]) by the addition of /-ga/
+CONT	=	verb may take the continuative suffix /-niʔi/
GA=GER	=	verb is subordinated by the /-gai/ suffix (i.e. is [-mom])
C=GER	=	verb is subordinated by the /-ci/ suffix (i.e. is [+mom])
NGU=IMP	=	verb forms the imperative by adding /-ŋu/
O=IMP	=	verb forms the imperative by adding a zero suffix
J=PRES	=	verb can take the present tense /-jɨ/
V=PAST	=	verb can take the /-vɨɨ/ past tense suffix
V/M=PAST	=	verb can take either the /-vɨɨ/ or the /-mpɨɨ/ past tense suffixes
KA=P/P	=	verb can take the present-past suffix /-ka/
T=HAB	=	verb forms participle in -tɨ (as opposed to -rɨ, -cɨ, or -ntɨ)
V=PROX	=	form is specified as "visible" for the visibility feature (as opposed to "here" or "invisible")
W=PL	=	noun forms plural (two or more) by adding /-wɨ/
A'-=SEV	=	noun (beginning with <u>ʔa</u>-) forms several (three or more) by reduplicating first syllable. Reduplicated syllable is short and unstressed.

E'--W=PL	=	noun forms plural by reduplicating first syllable and adding suffix /-wɨ/
'NAA-=PL	=	noun (beginning with na-) forms plural by reduplicating first syllable (first consonant and vowel); reduplicated syllable is long, however, and stressed

CHEMEHUEVI-ENGLISH WORD LIST

CHEMEHUEVI-ENGLISH WORD LIST

QUIETLY/STILL	'AA=	A	0330	AA
STILL/QUIETLY	'AA=	A	0330	AA
SECRETLY/STEALTHILY	'AAGA=	A	0331	AAGA
STEALTHILY/SECRETLY/SNEAKILY	'AAGA=	A	0331	AAGA
HIDE	'AAGA=MUSI	V	1376	AAGAMUSI
HIDE	'AAGA=WACE	V	1377	AAGAWACE
TURTLE	'AAJ(A)	N	2248	AAJA
TURTLE=SHELL	'AAJA=?ASI=V(E)	N	2616	AAJAASIVE
HORN	'AAP(E)	N	2086	AAPE
APPLE	'AAPOROS(I)	N	2401	AAPOROSI
I THINK	'AAROO	I	8130	AAROO
GUN/BOW	A'C(E)	N	2511	ACE
BOW/GUN	A'C(E)	N	2511	ACE
WHEAT	A'CIT(A)	N	2427	ACITA
NEW/YOUNG	'AE=GA	V	1087	AEGA
YOUNG PERSON	'AE=NEW(E)	N	2134	AENEWE
NOW/TODAY	'AE=V(I)	A	0261	AEVI
TODAY/NOW	'AE=V(I)	A	0261	AEVI
SOON/IN A MOMENT	'AE=VI=S(U)	A	0264	AEVISU
IN	=AGAV( )	P	0113	AGAV
TONGUE	A'GO=MP(I)	N	2089	AGOMPI
BOY (LITTLE)	'AIPAC(I)	N	2102	AIPACI
LITTLE BOY	'AIPAC(I)	N	2102	AIPACI
YOUNG BOY	'AIVAC(I)	N	2132	AIVACI
BEAUTIFUL/DELICIOUS	A'JAAMPI	V	1056	AJAAMPI
LOVELY/PRETTY/DELICIOUS	A'JAAMPI	V	1056	AJAAMPI
LOVELY	A'JAAMPI=TU?A==NI(I)	V	41056	AJAAMPITU
LOVELY	A'JAAMPI==NI(I)	V	51056	AJAAMPINI
DELICIOUS/LOVELY	A'JAAMPI	V	1056	AJAAMPI
MOHAVE	A'JAT(A)	N	2116	AJATA
LOVE/RESPECT/ADMIRE	A'JA=WA?I	V	1128	AJAWAI
IT'S COLD	A'JEE	I	9008	AJEE
COW=KILLER (WHITE)	A'KAGUPIC(I)	N	2219	AKAGUPICI
SPEAK/TALK	A'MPAGA	V	1450	AMPAGA
TALK/SPEAK	A'MPAGA	V	1450	AMPAGA
COUNCIL	A'MPAGA=TU?I=KA=M(E)	N	2135	AMPAGATUI
LANGUAGE	A'MPAGA=P(E)	N	2830	AMPAGAPE
OUCH	A'NE	I	9012	ANE
ANT	A'NGAAV(I)	N	2201	ANGAAVI
ARM	A'NGAV(E)	N	2052	ANGAVE
RED	A'NKA=GA	V	1013	ANKAGA
PINK	A'NKA=SIA=KA	V	1011	ANKASIAKA
NEG	=?AP(A)	S	0452	APA
IT'S HOT	A'REE	I	9009	AREE
HOT	A'REE=NI	V	1075	AREENI
HIDE/FUR/SKIN/BARK	A'SI=?A	N	72054	ASIA
PEEL/SKIN/SHELL/FUR	A'SI=?A	N	72054	ASIA
FUR/PEEL/BARK/SHELL	A'SI=?A	N	72054	ASIA
BARK/SKIN/HIDE/FUR	A'SI=?A	N	72054	ASIA
SHELL/SKIN/COVERING	A'SI=?A	N	72054	ASIA
SKIN/PEEL/RIND/BARK	A'SI=?A	N	72054	ASIA
SILVER	A'SI=GA	V	1014	ASIGA
RIND/PEEL/SKIN	A'SI=V(E)	N	2054	ASIVE
SKIN/RIND/PEEL	A'SI=V(E)	N	2054	ASIVE
PEEL/SKIN	A'SI=VO?A	V	1411	ASIVOA
SKIN/PEEL	A'SI=VO?A	V	1411	ASIVOA
SALT/ALKALINE	A'SOMP(E)	N	2597	ASOMPE
SALT	A'SO=NA	V	1514	ASONA
CAR	ATA'MUP(I)	N	2524	ATAMUPI
LOTS OF	A'VA?A=	A	0603	AVAA

WIDE	A'WA?AND	V	1036	AWAAND
SEVERAL	A'WAVANTE-M(E)	N	2018	AWAVANTEM
PERFECT	-CA(A)		5110	CAA
WEAVE/SEW	CA'GA	V	1437	CAGA
SEW/WEAVE	CA'GA	V	1437	CAGA
CLOSE/NEAR	CA'GIP( )	A	0240	CAGIP
NEAR	CA'GIP(A)	A	0229	CAGIPA
GRAB	CA'?I	V	1526	CAI
HOLD BACK	CA'?IKAI	V	1382	CAIKAI
DISMANTLE/TEAR DOWN	CA'JOKWIN?A	V	1554	CAJOKWINA
CAKE	'CAKE(I)	N	2517	CAKEI
YOUNGER BROTHER	CA'KI?(I)	N	2036	CAKII
TEAR	CA'PEKIN?A	V	1462	CAPEKINA
SEW	CA'PIKA?A	V	1436	CAPIKAA
CAR	'CAR(I)	N	2523	CARI
DOG	CA-'WACUG(U)	N	2223	CAWACUGU
(ABSOLUTIVE)	-C(E)	N	5207	CE
DUCK	CEG(A)	N	2262	CEGA
FLASH	CE'PEPE?E	V	1551	CEPEPEE
(ABSOLUTIVE)	-C(I)	N	5208	CI
(DIMINUATIVE)	-C(I)	N	5250	CI
POINTED OBJECT-	CI'-	N	2587	CI
AFTER (SUBORDINATOR)	-C(I)		5132	CI
THIN	CI'?AUC(I)	V	1035	CIAUCI
CUT OFF	CI'KAPIN?A	V	1340	CIKAPINA
CUT OFF	CI'KAVICA	V	1339	CIKAVICA
CUT/SLICE	CI'KWA?ICA	V	1338	CIKWAICA
CUT	CI'KWE	V	1335	CIKWE
KEY	CI'KWI-CUI-NUMP(E)	N	2564	CIKWICUIN
TURN	CI'KWICUI	V	1489	CIKWICUI
COME OUT-SG	CI'PI	V	1260	CIPI
CUT/DICE	CI'PURU?(U)	V	1336	CIPURUU
COME OUT-PL	CI'VUNGA	V	1263	CIVUNGA
HEAD-	CO'-	N	2072	CO
BUMP (HEAD)/HIT	CO-'KWIPA	V	1311	COKWIPA
SHRINK/CRAMP	CO'NOK(A)	V	1331	CONOKA
CRAMP/SHRINK	CO'NOK(A)	V	1331	CONOKA
SCRATCH	'COON?A	V	1501	COONA
PICK	'COOWAA	V	1413	COOWAA
BRAIN	CO'PIK(I)	N	2058	COPIKI
ROADRUNNER	E'C(A)	N	2259	ECA
UGLY/BAD	E'CE-NI	V	1058	ECENI
LONG AGO/ALREADY	'EES(U)	A	0254	EESU
ALREADY/LONG AGO	'EES(U)	A	0254	EESU
PLANT/ENTER	E'GA	V	1357	EGA
ENTER/PLANT	E'GA	V	1357	EGA
PLANT	E'GA-P(E)	N	2419	EGAPE
EVENING	E'GA-P(E)	N	2803	EGAPE
WEST	E'GA-TUA-NT	A	0224	EGATUANT
BEFOREHAND	EI-	A	0282	EI
OLD	'EITE-PEW	V	1092	EITEPEW
STEAL	E'JENGI	V	1453	EJENGI
THIEF	E'JENKAT(E)	N	2130	EJENKATE
SLEEP-PL	E'KOI	V	1446	EKOI
YOU-SG	E'M(I)	N	2005	EMI
GHOST/SPIRIT	E'NEP(I)	N	2108	ENEPI
OCOTILLO	E'NEPI-POROMP(E)	N	2414	ENEPIPORO
SPIRIT/GHOST	E'NEP(I)	N	2108	ENEPI
BABY	E'NGAPIC(I)	N	2101	ENGAPICI
SLEEP-SG	E'PEI	V	1445	EPEI

SLEEP	E'PFI-P(E)	N	2828	EPEIPE
OLD MAN	E'SA-VEC(I)	N	2122	ESAVECI
BAD	E'VE-J	I	9001	EVEJ
ILL/BAD	E'VE-JU--NI	V	1043	EVEJUNI
BAD/ILL	E'VE-JU--NI	V	1043	EVEJUNI
DESTROY	E'VE-MAW?(E)	V	1345	EVEMAWE
BAD	E'VE-NI	V	51043	EVENI
BAD	E'VE-PEWE-NI	V	1044	EVEPEWENI
HATE	E'VE-SUNTU?I	V	1126	EVESUNTUI
RAIN	E'WA	V	1425	EWA
RAIN	E'WA-R(E)	N	2590	EWARE
LONG TIME	E'WITU	A	0260	EWITU
OVER	-GAA-VA?(A)	P	0116	GAAVAA
MORE THAN	-GAA-VA?A-C( )	P	0195	GAAVAAC
HAVE/BE	-GA(I)	V	1120	GAI
WHILE (SUBORDINATOR)	-GA(I)		5130	GAI
BE/HAVE	-GA(I)	V	1120	GAI
FORMER	-GAIP(E)	N	5220	GAIPE
THOUGH	-GAI-SAP(A)		5169	GAISAPA
COME TO-SG	-GI	V	1911	GI
COME TO-PL	-GI-VORO	V	1912	GIVORO
WHILE (SUBORDINATOR)	-G(U)		5131	GU
WOULD	-GU(U)		5115	GUU
SHOULD	-GUU-P(E)		5116	GUUPE
OH	HA!?AE	I	9011	HAAE
MEXICAN	HA!?AT-AIKU(U)	N	2115	HAATAIKUU
GOOD/FINE	HA!?E-C	I	9005	HAEC
GOOD	HA!?E-C(I)	V	51050	HAECI
GOOD/FINE	HA!?E-J	I	9006	HAEJ
GOOD/WELL	HA!?E-JU	V	1048	HAEJU
WELL/GOOD	HA!?E-JU	V	1048	HAEJU
GOOD/NICE/FUN	HA!?E-P(E)	V	1049	HAEPE
LIKE	HA!?E-SUNTU?I	V	1127	HAESUNTUI
GOOD	HA!?E-TE-	V	1050	HAETE
FIX/CLEAN	HA!?E-TE-MAE	V	1322	HAETEMAE
CLEAN/FIX	HA!?E-TE-MAE	V	1322	HAETEMAE
WHICH	HA!GAKAJA	A	0207	HAGAKAJA
I WISH	HA!GANIS	I	8140	HAGANIS
HOW/WHY	HA!GANIGA(I)	A	0202	HAGANIGAI
WHY/HOW	HA!GA-NI?ING(U)	A	0201	HAGANIING
DO WHAT	HA!GA-NI	A	0212	HAGANI
WHERE (MOTION)	HA!GA-RUA	A	0206	HAGARUA
WHY	HA!GA-RUAGA(I)	A	0208	HAGARUAGA
WHERE (MOTION)	HA!GA-VAA-NTUA	A	0205	HAGAVAANT
WHERE (LOC)	HA!GA-VA	A	0204	HAGAVA
LIE (DOWN)-SG	HA-!HAVI	V	1263	HAHAVI
WHITE-MAN/ENGLISH	!HAIKU(U)	N	2106	HAIKUU
ENGLISH/WHITE-MAN	!HAIKU(U)	N	2106	HAIKUU
HECK	!HAINU !HEEN	I	9015	HAINUHEEN
(AND) THEN	!HAITA	A	0402	HAITA
THEN/AND THEN	!HAITA	A	0402	HAITA
WHO	HA!NG(A)	N	2021	HANGA
SOMEONE	HA!NGA-SAP(A)	N	2023	HANGASAPA
WHAT/HOW	HA!NI(A)	A	0209	HANIA
WHEN	HA!NOK(O)	A	0203	HANOKO
HOW MANY	HA!NO-PAI-JUJUM(E)	A	0210	HANOPAIJU
HOW MANY	HA!NO-PAI-T(E)	A	0211	HANOPAITE
LIE-SG	HA!VI	V	1275	HAVI
BED	HA!VI-TEA(A)	N	2506	HAVITEAA
SNEEZE	HA!W?ISI	V	1539	HAWISI

CORN	HA'WIV(I)	N	2407	HAWIVI
IN VAIN	'HEE-	A	0307	HEE
YES	HE'?E	I	9013	HEE
JUST/IN VAIN	'HEE-	A	0307	HEE
AGED	-HEGAC( )	N	5255	HEGAC
TAG-O/HUH?	HE'NAA	A	0200	HENAA
HOLEY/HAVE A HOLE	HE'PEKI	V	1023	HEPEKI
HOLE	HE'PEKI-C(E)	N	2562	HEPEKICE
COME HERE	HE'VE	I	9004	HEVE
CERTAINLY	HE'VEE	I	9003	HEVEE
HOLEY/FULL OF HOLES	HE'VEGI-CA	V	1024	HEVEGICA
SOMETHING	'HIIMARA?APEC(I)	N	2028	HIIMARAAP
RELATIVE/KIN	'HIIW(A)	N	2111	HIIWA
KIN/RELATIVE	'HIIW(A)	N	2111	HIIWA
FEW/A FEW	HI'MPA-JOK( )	A	0606	HIMPAJOK
PLATE/DISH	HI'MPEC(I)	N	2640	HIMPECI
WHAT	HI'MP(E)	N	2020	HIMPE
SOMETHING	HI'MPE-SAP(A)	N	2022	HIMPESAPA
PINCH	HI'NCUM?I	V	1414	HINCUMI
WHO/WHAT	HI'N(I)	N	2024	HINI
DRINK	HI'VI	V	1350	HIVI
BACK	'HO(A)	N	2053	HOA
FALL-PL/DROP	HO'HONONO?O	V	1352	HOHONONOO
LOST-PL/FALL/DROP	HO'HONONO?O	V	1352	HOHONONOO
DROP-PL/FALL	HO'HONONO?O	V	1352	HOHONONOO
BIG	HO'KO	V	1021	HOKO
SPIDER	HO'KOSO?A-V(I)	N	2255	HOKOSOAVI
DROP-PL/FALL	HO'NONO?O	V	91352	HONONOO
DIG	'HOORA	V	1347	HOORA
HOLE	HO'PAKI-P(E)	N	2560	HOPAKIPE
HOLE	HO'PAKI-C(E)	N	2561	HOPAKICE
PULL OUT	HO'VA	V	1418	HOVA
LUMBER	HO'V(I)	N	2570	HOVI
MOULT	HO'VI	V	1407	HOVI
POKE HEAD IN SOMEWHERE	HU'CINI?I	V	1487	HUCINII
OCEAN	HU'CIP(A)	N	2623	HUCIPA
DUST	HU'KUMP(E)	N	2539	HUKUMPE
SUSPECT	HU-'MAI--NI	V	1112	HUMAINI
ANY	HU'MPAIT(A)	A	0605	HUMPAITA
BADGER	HU'N(A)	N	2204	HUNA
UNTIE	HU'PA	V	1472	HUPA
UNTIE/COME UNTIED	HU'PA-KI	V	1545	HUPAKI
BULLET/ARROW	'HUU	N	2501	HUU
ARROW/BULLET	'HUU	N	2501	HUU
SQWAW BUSH	HU?UP?-V(E)	N	2428	HUUPIVE
SQWAW BUSH BERRY	HU?UP(I)	N	2429	HUUPI
BUT	HU-'?URUA-GAI-SAP(A)	A	8120	HUURUAGAI
COW-KILLER	HU'VACINOC(I)	N	2218	HUVACINOC
BROTH/JUICE/FRUIT-	HU'VA-SA?AP(E)	N	2514	HUVASAAPE
SOUP/BROTH/JUICE	HU'VA-SA?AP(E)	N	2514	HUVASAAPE
JUICE/BROTH/SOUP	HU'VA-SA?AP(E)	N	2514	HUVASAAPE
SAP/JUICE/SOUP	HU'VA-V(E)	N	2603	HUVAVE
SOUP/BROTH/JUICE	HU'VA-V(E)	N	2603	HUVAVE
JUICE/SAP/SOUP	HU'VA-V(E)	N	2603	HUVAVE
SONG	HU'VI-AV(E)	N	2826	HUVIAVE
RADIO/RECORD-PLAYER	HU'VI-TU-NUMP(E)	N	2589	HUVITUNUM
SING	HU'VI-TU	V	1440	HUVITU
WASH/CANYON	HU'WIP(I)	N	2521	HUWIPI
CANYON/WASH	HU'WIP(I)	N	2521	HUWIPI
THIS/THESE	I'-	N	82013	I

THIS/THESE	I-'C(E)	N	2013	ICE
RESEMBLE (SOMETHING HERE)	I-'CU?A	V	1004	ICUA
WALK THIS WAY	I-'CUA	V	1268	ICUA
GRAPES	I'JAAV(I)	N	2411	IJAAVI
GRAPE VINE	I'JAAVI-MP(E)	N	2423	IJAAVIMPE
WILD	I'JAGA	V	1546	IJAGA
SCARED	I'JAPAKA	V	1040	IJAPAKA
AFRAID	I'JAVAGA	V	1041	IJAVAGA
DANGEROUS/SCARY	I'JAVI-NTUARENI	V	1089	IJAVINTUA
THIS/THESE	I-'KA-	N	92013	IKA
THEY (HERE)	I-'M(E)	N	2010	IME
HE/SHE (HERE)	I'NG(A)	N	2007	INGA
BEAVER	I'PIINA(A)	N	2261	IPIINAA
HERE	I-'VA	A	0225	IVA
BRING-SG-OBJ	'JAAKI	V	1254	JAAKI
TAKE (AWAY)	'JAA-KWA?I	V	1262	JAAKWAI
FLY OFF-PL	'JAASE	V	1434	JAASE
CRY	JA'GA	V	1334	JAGA
CRYING SONG	JA'GA-HUVI-AV(E)	N	2840	JAGAHUVIA
HUNT	JA'HI	V	1486	JAHI
TIRED-SG/DRUNK/DEAD	JA'?I	V	1046	JAI
DEAD-SG/TIRED/SUFFER	JA'?(I)	V	1046	JAI
DRUNK-SG/TIRED/DEAD	JA'?I	V	1046	JAI
DIE	JA'?I-KWA?(I)	V	1346	JAIKWAI
BURST INTO TEARS	JA-'JAGA	V	1482	JAJAGA
CARRY-SG-OBJ	JA'WI	V	1317	JAWI
HOLD	JA'WI-NI?I	V	1380	JAWINII
PRESENT	-J(E)	T	5101	JE
ENTER/SINK/SET	JE'?A-KI	V	1359	JEAKI
SET (SUN)/ENTER/SINK	JE'?A-KI	V	1359	JEAKI
SINK/ENTER/SET	JE'?A-KI	V	1359	JEAKI
SWALLOW	JE'?EKI	V	1455	JEEKI
OUTDOORS/OUTSIDE	JE'HEVA-NT	A	0238	JEHEVANT
SIT (DOWN)-PL	JE-'JEWI	V	1280	JEJEWI
COLLAPSE (OPEN STRUCTURE)	JE'PAK(I)	V	1324	JEPAKI
SPRING OR AUTUMN	JE'VAN	N	2807	JEVAN
PLAIN	JE'WAAV(I)	N	2586	JEWAAVI
SIT-PL	JE'WI	V	1278	JEWI
COLLAPSE (ENCLOSED STRUCTURE)	JO'KOK(I)	V	1325	JOKOKI
WHILE (SUBORDINATOR)	-J(U)		5130	JU
CARRY-PL-OBJ	JU'?A	V	1318	JUA
BRING-PL-OBJ	JU'?A-KI	V	1255	JUAKI
WARM	JU'?ARA	V	1081	JUARA
FAT	JU'HU-GAI	V	1022	JUHUGAI
FAT	JU'HU-V(I)	N	2542	JUHUVI
TIRED-PL/DRUNK/DEAD	JU'M?A	V	1047	JUMA
DEAD-PL/TIRED/SUFFER	JU'M?A	V	1047	JUMA
DRUNK-PL/TIRED/DEAD	JU'M?A	V	1047	JUMA
WEAK	JU'M?I-GA	V	1052	JUMIGA
PUT-PL-OBJ	JU'NA	V	1422	JUNA
GANG/COMPANY/CLAN	JU'NAKAIM( )	N	2145	JUNAKAIM
LEG	JU'?(U)	N	2076	JUU
PINE-TREE	JU'VIMP(E)	N	2417	JUVIMPE
NINE	JU'WIP	A	0509	JUWIP
UTE	JU'WITA(A)	N	2142	JUWITAA
(+SEV SUBJ)	-KA		5152	KA
PRESENT/PAST	-K(A)	T	5107	KA
AFTER (SUBORDINATOR)	-K(A)		5133	KA
RAT	'KAAC(I)	N	2244	KAACI
NECKLACE/NECK THING	'KAAG(I)	N	2630	KAAGI

MOUNTAINOUS	!KAA-KAIVA-GAI	V	1093	KAAKAIVAG
HILL	!KAAMP(E)	N	2559	KAAMPE
COTTON	!KAATANIV(E)	N	2408	KAATANIVE
WORRIED/BOTHERED	KAC HA!EC PI!JUWA?	V	8101	KACHAECPI
BOTHERED/WORRIED	KAC HA!EC PI!JUWA?	V	8101	KACHAECPI
NO/NOT	KA!C(U)	A	0450	KACU
EMPTY THERE	KAC U-!VAWI-WA?AT	I	8103	KACUVAWIW
BOX	KA!HON(I)	N	2512	KAHONI
RESULT	-KA(I)		5109	KAI
PERFECT	-KA(I)		5108	KAI
HAT	!KAICOG(O)	N	2629	KAICOGO
MOUNTAIN	!KAIV(A)	N	2577	KAIVA
MOUNTAIN PEAK	!KAIVA-KUVAI?A(A)	N	2578	KAIVAKUVA
MOUNTAIN TOP	!KAIVA-TAKA(A)	N	2579	KAIVATAKA
STOP-SG/SIT (DOWN)	KA-!KARE	V	1279	KAKARE
SIT (DOWN)-SG/STOP	KA-!KARE	V	1279	KAKARE
TASTE	KA!MA	V	1172	KAMA
JACK-RABBIT	KA!M(E)	N	2232	KAME
HOUSE	KA!N(I)	N	2563	KANI
LIVE/RESIDE	KA!NI-GAI	V	1396	KANIGAI
VISIT	KA!NI?I	V	1475	KANII
VILLAGE (ABANDONED)/CAMP	KA!NI-P(E)	N	2518	KANIPE
CAMP/VILLAGE (ABANDONED)	KA!NI-P(E)	N	2518	KANIPE
DOOR/HOUSE-CLOSING	KA!NI-TEWAP(E)	N	2537	KANITEWAP
BREAK/SNAP (STRING)	KA!PAK(I)	V	1309	KAPAKI
SNAP/BREAK (STRING)	KA!PAK(I)	V	1309	KAPAKI
RATTLE	KA!RAGA	V	1488	KARAGA
SIT-SG	KA!RE	V	1277	KARE
CHAIR	KA!RE-TEA(A)	N	2525	KARETEAA
SADDLE	KA!RE-N?UMP(E)	N	2596	KARENUMPE
-ER	-KAT(E)	N	5213	KATE
YESTERDAY	!KEAW(I)	A	0262	KEAWI
SPIT	KE!CIJON(A)	V	1503	KECIJONA
OTHER/ANOTHER	!KEEMAANC(I)	A	0550	KEEMAANCI
SERRANO/MORONGO	!KEEMAA-NEW(E)	N	2117	KEEMAANEW
MORONGO/SERRANO	!KEEMAA-NEW(E)	N	2117	KEEMAANEW
EDGE	!KEEWA(A)	N	2541	KEEWAA
BITE	KE!?(I)	V	1304	KEI
TASTE	KE!MAKA?(A)	V	1163	KEMAKAA
DIFFERENT	KE!MAN	A	0551	KEMAN
DIFFERENT ONE	KE!MANC(I)	N	2143	KEMANCI
BREAK/SNAP	KE!RUKWI	V	1307	KERUKWI
SHARP	KE!WAGAI	V	1026	KEWAGAI
PLAY	!KIIJAA	V	1415	KIIJAA
LAUGH	KI!JA-NI?I	V	1391	KIJANII
FUNNY	KI!JA-PITUA	V	1086	KIJAPITUA
ENTERTAINMENT	KI!JA-P(E)	N	2831	KIJAPE
SMILE	KI!JA-SUI	V	1447	KIJASUI
SMILE	KI!JA-SUI-KAI	V	51447	KIJASUIKA
SMILE	KI!JA-SUI-NI?I	V	61447	KIJASUINI
CUT/NICK	!KO(A)	V	1337	KOA
TOBACCO	KO!?A-P(I)	N	2634	KOAPI
SMOKE	KO!?A-TEKA	V	1510	KOATEKA
BASKET	KO!C(I)	N	2638	KOCI
KILL-PL-OBJ/SCOLD	KO!GO?I	V	21388	KOGOI
KILL-PL-OBJ/SCOLD	KO!?I	V	1388	KOI
CORNER	KO!MIWA	N	2625	KOMIWA
CRADLE	KO!N(O)	N	2533	KONO
BREAK/SNAP (STICK)	KO!POK(I)	V	1308	KOPOKI
SNAP/BREAK (STICK)	KO!POK(I)	V	1308	KOPOKI

RETURN/TURN AROUND	KO!TO?O-NGU	V	1428	KOTOONGU
TURN AROUND/RETURN/COME BACK	KO!TO?O-NGU	V	1428	KOTOONGU
GREY	KU!CA-KA	V	1009	KUCAKA
ASHES	KU!CA-P(E)	N	2624	KUCAPE
ASHES	KUCA-W(A)	N	82624	KUCAWA
BURN	KU!CIKI	V	1313	KUCIKI
BUFFALO/CAMEL	KU!C(U)	N	2210	KUCU
CAMEL/BUFFALO	KU!C(U)	N	2210	KUCU
WOOD/STICK/FIREWOOD	KU!KWAP(I)	N	2607	KUKWAPI
SHOOT/STING	KU!KWI	V	1438	KUKWI
STING/SHOOT	KU!KWI	V	1438	KUKWI
STICK/WOOD	KU!KWAP(I)	N	2607	KUKWAPI
HUSBAND	KU!M(A)	N	2038	KUMA
MALE (NONHUMAN)	KU!M(A)	N	92038	KUMA
MARRY (FEMALE SUBJECT)	KU!MA-RU	V	1529	KUMARU
FIRE	KU!N(A)	N	2546	KUNA
SACK/SHEATH	KU!NAV(E)	N	2595	KUNAVE
SHEATH/SACK	KU!NAV(E)	N	2595	KUNAVE
NECK	KUR(A)	N	2088	KURA
FENCE/CORRAL	KU!RAR(I)	N	2544	KURARI
PANTS	KU!S(A)	N	2583	KUSA
FRY	KU!SA?A	V	1369	KUSAA
FRYING-PAN	KU!SA?A-NUMP(E)	N	2552	KUSAANUMP
HOT	KU!TUCAA	V	1070	KUTUCAA
HOT	KU!TUCI	V	1076	KUTUCI
BURY	!KUU	V	1314	KUU
PIG	!KUUCI?(I)	N	2243	KUUCII
COFFEE	!KUUPI(I)	N	2531	KUUPII
SWEATER	!KUUTA?(A)	N	2612	KUUTAA
IN (TIME)/AGO/FROM NOW	!KWAE	A	0251	KWAE
AGO/IN (TIME)/AWAY	!KWAE	A	0251	KWAE
AWAY/FROM NOW/AGO	!KWAE	A	0251	KWAE
SWIFT	!KWAE-NKAI	V	1543	KWAENKAI
BECOME/GET/TURN	-KWA?(I)	V	1901	KWAI
AWAY	-KWA?(I)	A	0220	KWAI
I DUNNO	KWA!?IJA	I	8150	KWAIJA
LIE (DOWN)-PL	KWA-!KWAVI	V	1284	KWAKWAVI
CHICKEN	KWA!ROJAW(I)	N	2215	KWAROJAWI
RIPE/COOK/BURN	KWA!SE	V	1328	KWASE
COOK/RIPE	KWA!SE	V	1328	KWASE
TAIL	KWA!S(I)	N	2614	KWASI
DRESS/PUT ON DRESS	KWA!SU-NTU	V	1553	KWASUNTU
DRESS	KWA!S(U)	N	2538	KWASU
LIE-PL	KWA!VI	V	1276	KWAVI
GET-SG-OBJ/TAKE/CATCH	KWE!HE	V	1293	KWEHE
CATCH-SG-OBJ/TAKE/RECEIVE	KWE!HE	V	1293	KWEHE
TAKE-SG-OBJ/GET/CATCH	KWE!HE	V	1293	KWEHE
GET UP	KWE!REKI	V	1512	KWEREKI
SPOON	KWI!CARA?(A)	N	2605	KWICARAA
DEFECATE	KWI!CA	V	1552	KWICA
SMOKE	KWI!HI-KA	V	1538	KWIHIKA
SMOKE	KWI!HI-P( )	N	2633	KWIHIP
LEFT	!KWII-	A	0231	KWII
LEFT-HANDED ONE/SOUTH-PAW	!KWII-GANT(E)	N	2113	KWIIGANTE
SNAKE	!KWIIJAAC(I)	N	2247	KWIIJAACI
LEFT/TO THE-	!KWII-MI-TU(A)	A	0233	KWIIMITUA
TO THE LEFT/LEFT	!KWII-MI-TU(A)	A	0233	KWIIMITUA
TURN	!KWIIN?A	V	1470	KWIINA
CUCUMBER	KWI!JUKWIMP(I)	N	2409	KWIJUKWIM
SPIN/TURN	KWI!NU?UNGU	V	1452	KWINUUNGU

TURN/SPIN	KWI!NU?UNGU	V	1452	KWINUUNGU
HIT/FALL/STING (SCORPION)	KWI!PA	V	1361	KWIPA
FALL/STUMBLE/HIT	KWI!PA	V	1361	KWIPA
WHIP/HIT/FALL	KWI!PA	V	1361	KWIPA
STING (SCORPION)/HIT	KWI!PA	V	1361	KWIPA
LIF/FIB	KWI!TA-RENIA	V	1395	KWITARENI
BUTTOCKS	KWI!TU-MUKW(I)	N	2060	KWITUMUKW
ANUS	KWI!T(U)	N	2051	KWITU
HAND-	MA!-	N	2070	MA
THAT/THOSE (VIS)	MA!-	N	82014	MA
PAINT/MARK/COLOR	MA!?A	V	1326	MAA
SO/LIKE THAT	!MAA	I	9014	MAA
COLOR/MARK/PAINT	MA!?A	V	1326	MAA
FINISH	-MA?AK(U)	V	1904	MAAKU
OLD LADY/OLD WOMAN	!MAAPEC(I)	N	2121	MAAPECI
OLD WOMAN/OLD LADY	!MAAPEC(I)	N	2121	MAAPECI
REAR/RAISE	MA!?AWA?I	V	1499	MAAWAI
TAKE CARE OF	MA!?AWA?I	V	1459	MAAWAI
RAISE/REAR	MA!?AWA?I	V	1499	MAAWAI
FINISH	-MAE	V	1905	MAE
MAKE	!MAE	V	1400	MAE
GIVE	MA!GA	V	1292	MAGA
TRY	-MAGA	V	1906	MAGA
POINT AT	MA-!GUGIKAI	V	1416	MAGUGIKAI
LAUNDER	MA!HA	V	1392	MAHA
PLANT/TREE	MA!HAV(E)	N	2420	MAHAVE
TREE/PLANT	MA!HAV(E)	N	2420	MAHAVE
FIND	MA!H(I)	V	1364	MAHI
SAY	!MAI	V	1110	MAI
THINK	!MAI--NI	V	1111	MAINI
EXPLAIN/TEACH	!MAI-NKE	V	1203	MAINKE
TEACH/EXPLAIN	!MAI-NKE	V	1203	MAINKE
NUDGE	MA-!JEMPUGI	V	1408	MAJEMPUGI
KILL-PL-OBJ	MA!JUMA	V	1390	MAJUMA
THAT/THOSE (VIS)	MA-!KA-	N	92014	MAKA
THAT/THOSE (VIS)	MA-!KA-	N	92014	MAKA
GATHER	MA!MA-SUMPARU(I)	V	1371	MAMASUMPA
WOMAN	MA!MA?U(U)	N	2131	MAMAUU
THEY (VIS)	MA-!M(E)	N	2011	MAME
REAR	MA-!NANA-NKE	V	1381	MANANANKE
FROM/BECAUSE OF	-MANANKW(A)	P	0120	MANANKWA
BECAUSE OF/FROM	-MANANKW(A)	P	0120	MANANKWA
TOWARDS THAT WAY (DIRECTION)	MA-NANKWA-TU(A)	P	0121	MANANKWAT
SQUEEZE	MA!NCU	V	1505	MANCU
FIVE	MA!NEG	A	0505	MANEG
HE/SHE (VIS)	MA!NG(A)	N	2008	MANGA
ON	-MANK(U)	P	0162	MANKU
EVERY/ALL	MA!N(O)	A	0601	MANO
CHASE	MA!NO	V	1319	MANO
ALL/EVERY	MA!N(O)	A	0601	MANO
CHASE	MA!NO?O	V	81319	MANOO
CHASE	MA!NO?O-K(O)	V	91319	MANOOKO
PART OF/SOME OF	-MANTE	P	0190	MANTE
SOME/PART OF	-MANTE	P	0190	MANTE
SHOVE/MOVE	MA-!NUJUKWA-NKE	V	1439	MANUJUKWA
MOVE/SHOVE	MA-!NUJUKWA-NKE	V	1439	MANUJUKWA
RUB WITH HAND	MA-!NURA	V	1532	MANURA
TOUCH	MA!PIK(A)	V	1166	MAPIKA
THAT/THOSE (VIS)	MA-!R(E)	N	2014	MARE
HELP	MA!REGAI	V	1375	MAREGAI

PUSH	MA!REKWIPA	V	1496	MAREKWIPA
RESEMBLE (SOMETHING VIS)	MA=!RU?A	V	1004	MARUA
WALK THAT WAY	MA=!RUA	V	1268	MARUA
CLIMB ON THAT	MA=RUKA=N?A	V	1256	MARUKANA
WAKE	MA=!RUPUN?I=NKE	V	1477	MARUPUNIN
FORK/FINGERED=THING	MA=!SEA=GANT(E)	N	2551	MASEAGANT
FINGER	MA=!SE(E)	N	2063	MASEE
TEN	MA!SEW	A	0510	MASEW
CLOTH	MASI!KWARIP(I)	N	2529	MASIKWARI
FINGER=NAIL	MA!SICO?(O)	N	2064	MASICOO
GLOVE	MA=!SONK(U)	N	2648	MASONKU
FINISH (CONSUME)	MA!SUA	V	1365	MASUA
THUMB	MA!=TOG(O)	N	2079	MATOGO
HANDLE	MA=!UNI=NI?I	V	1558	MAUNINII
STOP	=MAUPA	V	1916	MAUPA
THERE (VIS)	MA=!VA	A	0226	MAVA
COLD (ILL)	MA!VA=	N	2835	MAVA
SLAP	MA=!VACIKI	V	1441	MAVACIKI
SLAP	MA!VACIKINKE	V	1502	MAVACIKIN
CLAP HANDS	MA=!VACIGI	V	1321	MAVACIGI
HAVE A COLD	MA!VA=JA?(I)	V	81046	MAVAJAI
PET	MA!VANG?I	V	1412	MAVANGI
FEEL/TOUCH	MA!VIK(A)	V	1165	MAVIKA
TOUCH/FEEL	MA!VIK(A)	V	1165	MAVIKA
COVER	MA!VO?A	V	1330	MAVOA
EXPENSIVE/COSTLY	MA=!WAGA	V	1085	MAWAGA
CREEP	MA=!WAVA	V	1333	MAWAVA
LAZY/TIRE OF	MA!WEA	V	1059	MAWEA
AUNT (MA OLD SI)	MA!WE?A	N	2041	MAWEA
NEPHEW	MA!WE=?EC( )	N	2042	MAWEEC
(=SG +ANIM SUBJ)	=M(F)		5150	ME
VERY	!MEEGA(I)	A	0302	MEEGAI
GOPHER	MEJ(E)	N	2263	MEJE
YOU=PL	ME!M(I)	N	2006	MEMI
RETURN=PL	ME!NESI	V	1266	MENESI
EAGLE	ME!NGIMPEC(I)	N	2252	MENGIMPEC
USITATIVE	=MI		5111	MI
SMALL	MI!?AU=NCI	V	1028	MIAUNCI
LESS	MI!?AU=NCI=N	A	0306	MIAUNCIN
SMALL ONE	MI!?AU=PECIW(E)	N	2128	MIAUPECIW
MOON	MI!JAROGOPIC(I)	N	2576	MIJAROGOP
FAR	MI!JO	V	1020	MIJO
FAR	MI!JOT(O)	A	0228	MIJOTO
FATHER	!MO(A)	N	2030	MOA
BITTER	MO!HARA	V	1071	MOHARA
BITTER THING	MO!HARA=T(E)	N	2643	MOHARATE
LEAD	!MOI	V	1394	MOI
HAND	MO!?O=V(E)	N	2069	MOOVE
FUTURE	=MPA(A)	T	5103	MPAA
(ABSOLUTIVE)	=MP(E)	N	5201	MPE
PAST (MOM)	=MPE(E)	T	5105	MPEE
(ABSOLUTIVE)	=MP(I)	N	5202	MPI
STRONG	MU!CU	V	1051	MUCU
BRAINLESS	MU!GUAT	I	9002	MUGUAT
THINK	MU!GUARUNI?I	V	1463	MUGUARUNI
THINK	MU!GUARU	V	81463	MUGUARU
OWL	MU!HUMPEC(I)	N	2239	MUHUMPECI
STRAIGHT	MU!KUNT(A)	V	1542	MUKUNTA
SEVEN	MU!KWIS	A	0507	MUKWIS
ROUND	MU!N?UNKI	V	1034	MUNUNKI

EMPTY OUT	MU!PANG(A)	V	1356	MUPANGA
BLANKET-CAST-AWAY	MU!RU?I-GAIP(E)	N	92508	MURUIGAIP
BLANKET	MU!RU?(I)	N	2508	MURUI
SISTER-IN-LAW	MU!SIMPIJ( )	N	2043	MUSIMPIJ
TRY (IN VAIN)/UNABLE TO	-MUSU	V	1907	MUSU
UNABLE TO	-MUSU	V	1907	MUSU
MULE	!MUUNA?(A)	N	2238	MUUNAA
FLY	!MUUPIC(I)	N	2228	MUUPICI
NOSE	MU!V(I)	N	2077	MUVI
REFLEXIVE/SELF	NA!-	S	2016	NA
SELF/REFLEXIVE	NA!-	S	2016	NA
-ING (NOMINAL)	-N(A)		5126	NA
EXTREMELY/VERY	!NAAKE-MEGA(I)	A	0303	NAAKEMEGA
VERY/EXTREMELY	!NAAKE-MEGA(I)	A	0303	NAAKEMEGA
RIGHT	!NAANCI	A	0508	NAANCI
RELATIVE/KIN	!NAAPAGAP(E)	N	2110	NAAPAGAPE
KIN/RELATIVE	!NAAPAGAP(E)	N	2110	NAAPAGAPE
BELT	!NAAPAGAP(E)	N	2507	NAAPAGAPE
OLD MAN	!NAAPEW(E)	N	2123	NAAPEWE
DAY AFTER DAY/EVERY DAY	!NAA-TA?IK(A)	A	0255	NAATAIKA
EVERY DAY/DAY AFTER DAY	!NAA-TA?IK(A)	A	0255	NAATAIKA
TRACK	!NAAW(A)	N	2635	NAAWA
NARROW	NA!CUKWI	V	1032	NACUKWI
IN	-NAG(A)	P	0118	NAGA
MOUNTAIN SHEEP	NA!G(A)	N	2236	NAGA
SHAWL/CAPE	NA!GAAP(E)	N	2522	NAGAAPE
CAPE/SHAWL	NA!GAAP(E)	N	2522	NAGAAPE
SICK	NA!GAMI	V	1055	NAGAMI
SHEEP	NA!GA-VUNKUC(I)	N	2246	NAGAVUNKU
CRACK OPEN	NA!GEGI	V	1521	NAGEGI
SHOOT EA OTHER	NA-!GU-KWI	V	11438	NAGUKWI
MARRY (RECIPR)	NA-!GUMA-RU	V	1525	NAGUMARU
HURT-SELF	NA-!HUKWIVI	V	1384	NAHUKWIVI
ONESELF	NA-!HUMP(A)	A	0350	NAHUMPA
BURN	NA!?I	V	1312	NAI
YOUNG GIRL	!NAINC(I)	N	2133	NAINCI
GIRL (LITTLE)	NA!?INCI-C(I)	N	2109	NAINCICI
LITTLE GIRL	NA!?INCI-C(I)	N	2109	NAINCICI
IN-LAW	NA!?ISA-HIW(A)	N	2146	NAISAHIWA
ANT	NA?ISA-?ANGAAV(I)	N	2258	NAISAANGA
BURN UP	NA!?I-TUPIK(E)	V	1515	NAITUPIKE
SEND	NA-!JAWI?I-TUI	V	1435	NAJAWIITU
TOGETHER	NA!MA-	A	0351	NAMA
FIRST	NA!ME	A	0256	NAME
YOUNGER SISTER	NA!MI?(I)	N	2037	NAMII
FOOT	NA!MP(A)	N	2065	NAMPA
GROW	NA!NA	V	1373	NANA
FIGHT	NA-NE-MPAKA	V	1485	NANEMPAKA
ANGRY	NA!NGA-JA?I	V	1042	NANGAJAI
APART/SEPARATELY	NA!NIS( )	A	0333	NANIS
HEAR/LISTEN	NA!NKA	V	1155	NANKA
HEAR/LISTEN	NA!NKA-KA(I)	V	1156	NANKAKAI
EAR	NA!NKA-V(E)	N	2061	NANKAVE
LISTEN/HEAR	NA!NKA	V	1155	NANKA
LISTEN/HEAR	NA!NKA-KA(I)	V	1156	NANKAKAI
LEAF	NA!NKA-V(A)	N	2424	NANKAVA
UNDERSTAND	NA!NKA-VUTUCUGA	V	1123	NANKAVUTU
CAN/CONTAINER/METAL	NA!NKWARU?(U)	N	2519	NANKWARUU
CONTAINER/CAN/METAL	NA!NKWARU?(U)	N	2519	NANKWARUU
METAL/CAN/CONTAINER	NA!NKWARU?(U)	N	2519	NANKWARUU

ASK FOR	NA!RE	V	1301	NARE
PICTURE OF SELF	NA-!REGAP(E)	N	92584	NAREGAPE
RUN-PL/DASH	NA!RENA	V	1432	NARENA
FIST-FIGHT	NA-!RONA-P(E)	N	2829	NARONAPE
SHIRT	NA!RO?(O)	N	2599	NARDO
MAKE A SHIRT	NA!RO?O-NTU	V	1511	NARDONTU
WAR	NA!RUGANIP(E)	N	2827	NARUGANIP
BUY	NA!RU-GA	V	1295	NARUGA
SELL	NA!RUGA-TERAVI	V	1296	NARUGATER
STORE/SHOP	NA!RU-GA-TUI-KAN(I)	N	2608	NARUGATUI
FORGET	NA!SUMEA	V	1124	NASUMEA
FORGET	NA-!SUMEA-SUTUI	V	51124	NASUMEASU
TRAIL	NA-!TENA	V	91389	NATENA
SIX	NA!VA	A	0506	NAVA
SWIM	NA!VAKE	V	1457	NAVAKE
MEDICINE	NA-!VUAGANUMP(E)	N	2573	NAVUAGANU
ESCAPE	NA-!WA-CIPI-NKE	V	1360	NAWACIPIN
PAY	NA-!WAGA-NKE	V	1410	NAWAGANKE
COST	NA-!WAGA-KA	V	91410	NAWAGAKA
APPEAR/SHOW UP	NA!WA?ITE	V	1251	NAWAITE
PROUD	!NEA-P	V	1530	NEAP
I	!NEE	N	2001	NEE
I	!NEENI	N	92001	NEENI
SNOW	!NEEVAAV(I)	N	2602	NEEVAAVI
WIND	NE!GAR(E)	N	2619	NEGARE
AIR/WIND	NE!GAR(E)	N	2619	NEGARE
ROUND-DANCE	NE!KAP(E)	N	2825	NEKAPE
GENEROUS ONE	NE-!MAGA-NT(E)	N	2144	NEMAGANTE
WE (EXCL)	NE!M(I)	N	2004	NEMI
TEACH-SCHOOL	NE-!MPO?O-TUI	V	1460	NEMPOOTUI
TEACHER	NE-!MPO?O-TUI-KAT(E)	N	2129	NEMPOOTUI
SHOW	NE-!MPUNI-TU?I	V	71151	NEMPUNITU
WEAVE BASKET	NE!NGA	V	1480	NENGA
BASKET	NE!NGA-PI-V(E)	N	2503	NENGAPIVE
BASKET	NE!NGA-P(I)	N	2504	NENGAPI
CHEST	NE!NGAP(E)	N	2092	NENGAPE
BURY (SOMEONE)	NE-!NKUU	V	61314	NENKUU
POLICEMAN/PERSON-CATCHER	NE-!NKWE-TUI-KAT(E)	N	2126	NENKWETUI
SNOW	NE!VA-?EWA	V	1556	NEVAEWA
INDIAN/CHEMEHUEVI/PERSON	NE!W(E)	N	2103	NEWE
PERSON/CHEMEHUEVI/INDIAN	NE!W(E)	N	2103	NEWE
CHEMEHUEVI/INDIAN/PERSON	NE!W(E)	N	2103	NEWE
BODY	NE!WE-?A-V	N	2056	NEWEAV
LIVE	NE!WE-GA(I)	V	1054	NEWEGAI
LIVER	NE!WEMP(I)	N	2087	NEWEMPI
MOMENTANEOUS	-NG(U)		5113	NGU
NAME	!NIA-V(I)	N	2823	NIAVI
CONTINUATIVE	-NI?I		5112	NII
-LIKE (SENS VB COMP)	-NI(I)	A	5165	NII
FOOD STORE/CACHE	NI!?I(A)	N	2516	NIIA
CACHE/FOOD STORE	NI!?I(A)	N	2516	NIIA
READ/COUNT	!NIINGA	V	1329	NIINGA
COUNT/READ	!NIINGA	V	1329	NIINGA
CALL	NI!JA	V	1342	NIJA
HAVE A NAME	NI!JA-GA	V	1057	NIJAGA
ENGAGE IN CONVERSATION	NI!MPEA	V	1484	NIMPEA
TRANSLATE/EXPLAIN	NI!MUKUMPA	V	1202	NIMUKUMPA
EXPLAIN/SET STRAIGHT	NI!MUKUMPA	V	1202	NIMUKUMPA
COULD	-NKU(U)		5117	NKUU
COULD	-NKUU-P(E)		5118	NKUUPE

BOIL	NO!JOGA	V	1305	NOJOGA
BEND	NO!KOM?A	V	1303	NOKOMA
GALLOP	NO!MAI=NUKWI	V	1370	NOMAINUKW
DREAM	NO!NOSI	V	1131	NONOSI
EGG	NO!PAV(I)	N	2540	NOPAVI
MOVE	NU!JUKWA	V	1261	NUJUKWA
RUN	NU!KWI	V	1430	NUKWI
INSTRUMENT	=NUMP(E)	S	5261	NUMPE
BONE	O!HOV(E)	N	2057	OHOVE
FOX (LITTLE	O!NCI(A)	KIT=)	2253	ONCIA
JUST (NOW/THEN)	O!NO=	A	0257	ONO
BROWN	O!NTO=KA	V	1007	ONTOKA
BEANS (MESQUITE)	O!P(I)	N	2404	OPI
MESQUITE BEANS	O!P(I)	N	2404	OPI
MESQUITE	O!PI=MP(E)	N	2413	OPIMPE
ORANGE	ORANGE(I)	N	2416	ORANGEI
(CACTUS)	O!SARAMP(E)	N	2405	OSARAMPE
SAND	O!TAV(E)	N	2598	OTAVE
YELLOW	O!WASIA=KA	V	1016	OWASIAKA
WATER	PA!=	N	92617	PA
WATER	!PAA	N	2617	PAA
TALL	PA!?A	V	1029	PAA
WATER=TURTLE	PA=!?AAJ(A)	N	2249	PAAAJA
BAT	!PAACA?AC(I)	N	2205	PAACAACI
LOUD/TALL	PA!?A=NI	V	51029	PAANI
LONG	PA!?A=NTOGA	V	1025	PAANTOGA
POTATOES	!PAAPAS(I)	N	2426	PAAPASI
WORM	PA!?A=V(I)	N	2257	PAAVI
BARREL=CACTUS	!PAAVIIV(E)	N	2403	PAAVIIVE
MOCCASIN	PA!CACIV(E)	N	2651	PACACIVE
WASH	PA=!CAGA	V	1478	PACAGA
LEATHER	PA!CAV(E)	N	2567	PACAVE
DAUGHTER	PA!C(E)	N	2033	PACE
OLDER SISTER	PA!C(I)	N	2035	PACI
BLOOD	!PAE=P(I)	N	2082	PAEPI
BLOOD	!PAE=W(A)	N	82082	PAEWA
RIVER	PA=!GA(A)	N	2591	PAGAA
SHOE	PA!GAP(E)	N	2600	PAGAPE
LAKE	PA=!GARE=R(E)	N	2566	PAGARERE
BLACKBIRD	PA!GACUKWIT(A)	N	2209	PAGACUKWI
NAVAJO	PA=!GAWIC(I)	N	2118	PAGAWICI
FISH	PA!GE=C(I)	N	2226	PAGECI
CLOUD	PA!GENAV(E)	N	2530	PAGENAVE
WALK=PL	PA!GI	V	1269	PAGI
SOUND	PA!GI	V	1171	PAGI
GO AWAY=PL	PA!GI=KWA?I	V	81269	PAGIKWAI
NOMADS/TRAVELERS	PA!GI=KA=REM	N	2119	PAGIKAREM
WANDER/TRAVEL AROUND	PA!GI=MPORO	V	91269	PAGIMPORO
TRAVEL AROUND/WANDER	PA!GI=MPORO	V	91269	PAGIMPORO
AUNT (FA SI)	PA!HA	N	2040	PAHA
THREE	PA!HI	A	0503	PAHI
WATER GLASS	PA=!HIVI=NUMP(E)	N	2636	PAHIVINUM
DIG A WELL	PA=!HORA	V	1348	PAHORA
WELL	PA=!HOORA=P(E)	N	2618	PAHORAPE
FLOAT	PA=!HUINA	V	1367	PAHUINA
CALL OVER	!PAI	V	1316	PAI
FRONT	PAJAA	N	2067	PAJAA
IN FRONT OF	=PAJA?A=VA(A)	P	0115	PAJAAVAA
DROWN	PA=!JA?I	V	1353	PAJAI
RETURN=SG	PA!JE	V	1265	PAJE

KANGAROO RAT	PA!J?(E)	N	2233	PAJE
SINK/DROWN	PA-!JE?A-KI	V	1354	PAJEAKI
DROWN/SINK	PA-!JE?A-KI	V	1354	PAJEAKI
COME BACK	PA!JE-KII	V	1267	PAJEKII
BUCKET	PA-!JUA-NUMP(E)	N	2515	PAJUANUMP
KILL-SG-OBJ/SCOLD	PA!KA	V	1387	PAKA
HURT	PA!KA-NKE	V	1383	PAKANKE
KNOW HOW TO/CAN	-PAKI		5114	PAKI
PUT	PA!MPEN?(I)	N	2588	PAMPENI
LIGHT	PA!NA	V	1010	PANA
MOVIES/FLICKERS	PA!NA-CIC( )	N	2652	PANACIC
LIGHT	PA!NA-KA-T(E)	N	2815	PANAKATE
COME DOWN/FR NORTH	PA!NANKWA	V	1257	PANANKWA
GLASSES (EYE)	PA!NA-PU?(I)	N	2555	PANAPUI
STREAM	PA-!NUKWI-C(E)	N	2609	PANUKWICE
BEAR	PA!PAW(A)	N	2206	PAPAWA
PAPER	PA!PILIV(E)	N	2581	PAPILIVE
PAIUTE	PA!RAN?EG(I)	N	2124	PARANEGI
PUMPKIN	PA!RANGAR(A)	N	2421	PARANGARA
LAUNDER	PA-!RAKWICA	V	1393	PARAKWICA
ICE/FROZEN WATER/GLASS	PA-!REASE-P(E)	N	2554	PAREASEPE
GLASS (PANE)/ICE	PA-!REASE-P(E)	N	2554	PAREASEPE
SOAK/WASH	PA-!REGI	V	1448	PAREGI
WINDOW	PA-!RE?ASE-TEWAP(E)	N	2639	PAREASETE
DAM	PA-!REWA-P(E)	N	2646	PAREWAPE
PURPLE	PA!ROWA-GA	V	1012	PAROWAGA
MIX IN WATER	PA-!RU	V	1406	PARU
FIELD/PASTURE	PA!S(A)	N	2545	PASA
FARM	PA!SA-RU	V	1362	PASARU
FARMER/GROWER	PA!SA-RAWAC(I)	N	2107	PASARAWAC
OLDER BROTHER	PA!V(I)	N	2034	PAVI
WATERMELON	PA!VON?OKWI-C(E)	N	2422	PAVONOKWI
DITCH	PA-!VO(O)	N	2627	PAVOO
SWELL (STING/DISEASE)	PA!WA	V	1507	PAWA
RELATIVE PRONOUN	PE-	N	2025	PE
(NOMINAL)	-P(E)		5140	PE
(ABSOLUTIVE)	-P(E)	N	5201	PE
ONE	-PECIW(E)	N	5230	PECIWE
REMOTE PAST	-PEGA(I)	T	5106	PEGAI
LONG AGO	-PEGA(I)	S	0259	PEGAI
TEAR	PE!KEKI	V	1461	PEKEKI
INSIST ON/KEEP ON	PE!NKA-	A	0280	PENKA
KEEP ON/INSIST ON	PE!NKA-	A	0280	PENKA
RIGHT/TO THE-	PE!RA-MI-TU(A)	A	0234	PERAMITUA
TO THE RIGHT/RIGHT	PE!RA-MI-TU(A)	A	0234	PERAMITUA
HEAVY	PE!TEJA	V	1031	PETEJA
(ABSOLUTIVE)	-P(I)	N	5202	PI
FEMALE (NONHUMAN)	!PI(A)	N	92031	PIA
MOTHER	!PI(A)	N	2031	PIA
MORE/ -ER	-PICA(A)	A	0305	PICAA
DOG/BITCH	PICA!RAK(I)	N	2225	PICARAKI
SUCK/SUCKLE	PICE	V	1508	PICE
BREAST/UDDER	PI!H(I)	N	2059	PIHI
UDDER/BREAST	PI!H(I)	N	2059	PIHI
MILK	PI!HI-VOV(I)	N	2574	PIHIVOVI
I WISH	!PII	I	9010	PII
LATER	!PIIKAJ(U)	A	0258	PIIKAJU
PIG	!PIINKIC(I)	N	2241	PIINKICI
DOLLAR/PESO	!PIISU?(U)	N	2535	PIISUU
ITCH	PI!JAGANK(E)	V	1527	PIJAGANKE

SWEET	PI!JAGAMA	V	1080	PIJAGAMA
HEART	PI!JE-P(I)	N	2074	PIJEPI
HEART	PI!JE-W(I)	N	2073	PIJEWI
HEART	PI!JE-W(A)	N	82073	PIJEWA
PULL	PI!JOGA	V	1495	PIJOGA
SMOOTH	PI!KAGA	V	1033	PIKAGA
BUG	PI!KAGAAC(I)	N	2211	PIKAGAACI
HAVE SORE BACK	PI!KA-HOA-GA(I)	V	1513	PIKAHOAGA
ROT	PI!KI	V	1429	PIKI
LEAVE	PI!KAW?I-NKE	V	1398	PINAWINKE
YOUNGEST	PI!NGA-TE-M( )	N	2148	PINGATEM
ARRIVE	PI!PICE	V	1253	PIPICE
VOMIT	PI!PITAN?(A)	V	1490	PIPITANA
CHILD	PI!SO?OC(I)	N	2104	PISOOCI
QUICKLY/IN A HURRY/FAST	PI!TANG(A)	A	0322	PITANGA
FAST/IN A HURRY/QUICKLY	PI!TANG(A)	A	0322	PITANGA
WIFE	PI!W(A)	N	2039	PIWA
MARRY (MALE SUBJECT)	PI!WA-RU	V	1528	PIWARU
SKUNK	PO!NI(A)	N	2254	PONIA
ROAD/PATH/TRAIL/STREET	PO!?(O)	N	2592	POO
PATH/TRAIL/STREET/ROAD	PO!?(O)	N	2592	POO
WRITE/DRAW	PO!?O	V	1349	POO
DRAW/WRITE	PO!?O	V	1349	POO
FLEA/LOUSE	!POO?AV(I)	N	2227	POOAVI
LOUSE/FLEA	!POO?AV(I)	N	2227	POOAVI
SWELL/INFLATE	!POOCA	V	1456	POOCA
TROT	!POOJA	V	1465	POOJA
LETTER	PO!?O-KAT(E)	N	2569	POOKATE
LETTER	PO!?O-P(E)	N	2568	POOPE
WAND/CANE	!POOR(O)	N	2520	POORO
CANE/WAND	!POOR(O)	N	2520	POORO
TEACH	PO!?O-TU?I	V	1466	POOTUI
FILL	PU!CAKU	V	1363	PUCAKU
DOCTOR/MEDICINE-MAN	PU!HAGANT(E)	N	2105	PUHAGANTE
MEDICINE-MAN/DOCTOR	PU!HAGANT(E)	N	2105	PUHAGANTE
MOUSE	PU!?INCAC(I)	N	2237	PUINCACI
EYE/SEED	PU!?IV(I)	N	2062	PUIVI
SEED/EYE	PU!?IV(I)	N	2062	PUIVI
BLOW	PU!KWI	V	1483	PUKWI
PET/DOG	PU!NKUU-C(I)	N	2222	PUNKUUCI
PET	PU!NK(U)	N	2240	PUNKU
WOOL	PU!NKUV(E)	N	2622	PUNKUVE
DOG/PET	PU!NKUU-C(I)	N	2222	PUNKUUCI
SMELL/STINK	PU!NUA	V	1079	PUNUA
STINK/SMELL	PU!NUA	V	1079	PUNUA
BREAK/SHATTER	PU!RU?AI-KU	V	1306	PURUAIKU
LOOK FOR	PU!SAGAI	V	1397	PUSAGAI
KNOW/UNDERSTAND/LEARN	PU!TUCUGA	V	1121	PUTUCUGA
LEARN/KNOW	PU!TUCUGA	V	1121	PUTUCUGA
UNDERSTAND/KNOW/LEARN	PU!TUCUGA	V	1121	PUTUCUGA
STAR	!PUUCIV(E)	N	2606	PUUCIVE
SEE/LOOK	!PUUNII	V	1151	PUUNII
SEE/LOOK	!PUUNII-KA(I)	V	1152	PUUNIIKAI
LOOK/SEE	!PUUNII	V	1151	PUUNII
LOOK/SEE	!PUUNII-KA(I)	V	1152	PUUNIIKAI
CAT	!PUUS(I)	N	2213	PUUSI
(YES-NO Q)	-RA(A)		5160	RAA
GIVE/HAND	-RUA	V	1291	RUA
OFFSPRING/-LET	-RUAC(I)	S	5251	RUACI
UNDER	-RUK(A)	P	0108	RUKA

UNDER	=RUKA=TU(A)	P	0109	RUKATUA
LESS THAN	=RUKA=TUA=C( )	P	0196	RUKATUAC
GRAVY	SA!?AP(I)	N	2556	SAAPI
WILLOW	SA!GAV(E)	N	2430	SAGAVE
GUTS	SA!GWI=V(E)	N	2085	SAGWIVE
MELT/DISSOLVE	!SAI	V	1405	SAI
RUG/PALLET	SA!MAP(E)	N	2580	SAMAPE
PALLET/RUG	SA!MAP(E)	N	2580	SAMAPE
DOUGH/SQUISHY STUFF	SA!MI=KAR(E)	N	2628	SAMIKARE
BREAD	SA!MITA?A=P(I)	N	2513	SAMITAAPI
ONLY	=SAMP(A)	A	0604	SAMPA
SLOWLY/QUIETLY	SA!MPAV(A)	A	0323	SAMPAVA
SLOWLY/QUIETLY	SA!MPAVA=NI	A	0324	SAMPAVANI
QUIETLY/SLOWLY	SA!MPAV(A)	A	0323	SAMPAVA
QUIETLY/SLOWLY	SA!MPAVA=NI	A	0324	SAMPAVANI
SAP/GUM	SA!NA=P(I)	N	2632	SANAPI
THOUGH/ACTUALLY	=SAP(A)	A	0405	SAPA
ACTUALLY/THOUGH	=SAP(A)	A	0405	SAPA
BELLY/STOMACH	SA!P(E)	N	2081	SAPE
STOMACH/BELLY	SA!P(E)	N	2081	SAPE
DIFFICULT	SA!PI?AI	V	1090	SAPIAI
BRAVE/FORMIDABLE	SA!PIJA?I	V	1045	SAPIJAI
FOAM/BEER/SUDS	!SARONC(I)	N	2642	SARONCI
BEER/SUDS/FOAM	!SARONC(I)	N	2642	SARONCI
GREEN/BLUE	SA!WA=GA	V	1006	SAWAGA
BLUE/GREEN	SA!WA=GA	V	1006	SAWAGA
CHEMEH=HOUSE (ARROW=WEED)	SA!WA=KAN(I)	N	2527	SAWAKANI
ARROW=WEED	SA!WA=P(E)	N	2402	SAWAPE
TART	SE!GE=NKA	V	1094	SEGENKA
TART/TASTE TART	SE!GE=NKAMA	V	1095	SEGENKAMA
LIZARD	SE!GEPIC(I)	N	2234	SEGEPICI
FLOWER	SE!?IP(I)	N	2410	SEIPI
COLD	SE=!JA?I	V	1072	SEJAI
COYOTE	SE!NA?AV(I)	N	2220	SENAAVI
COPY CAT/COYOTE	SE!NA?AV(I)	N	2220	SENAAVI
COLD	SE=!TU?I	V	1073	SETUI
URINATE	SI!?I	V	1474	SII
URINE	SI!?IP(I)	N	2091	SIIPI
URINATE (GO TO)	SI!?I=WA?I	V	31474	SIIWAI
SQUIRREL	SI!KUC(I)	N	2256	SIKUCI
SPOON	SI!PUNA?(A)	N	2604	SIPUNAA
WHITTLE/SHAVE=WOOD	SI!VA	V	1481	SIVA
WHITTLE	SI!VA=VA	V	71481	SIVAVA
ONION	SI!VUJA?(A)	N	2415	SIVUJAA
CHEMEH=VALLEY	SI!WA?AVAAC(I)	N	2528	SIWAAVAAC
SPREAD (BLANKET)	SO!M?A	V	1540	SOMA
LUNG/LUNGS	!SOO=G( )	N	2093	SOOG
LUNG/LUNGS	!SOO=V(I)	N	62093	SOOVI
STILL/ALSO	=S(U)	S	0401	SU
TOO/STILL	=S(U)	S	0401	SU
ALSO/TOO/STILL	=S(U)	S	0401	SU
WANT	=SUAWA=GA(I)	V	1910	SUAWAGAI
REMEMBER	SU=!MAI	V	1122	SUMAI
QUIETLY/SLOWLY	SU!MPAV(A)	A	0325	SUMPAVA
QUIETLY/SLOWLY	SU!MPAVA=NI	A	0326	SUMPAVANI
FEEL	=SUMPA	V	1524	SUMPA
SLOWLY/QUIETLY	SU!MPAV(A)	A	0325	SUMPAVA
THINK	=SU=NTU?I	V	1129	SUNTUI
ONE	!SUU	A	0501	SUU
EASY TO/READY TO	!SUU=	A	0410	SUU

BEADS	!SUUKUR(I)	N	2505	SUUKURI
EVEN/STRAIGHT	!SUUNAVA	V	1523	SUUNAVA
GATHER TOGETHER	!SUUPARUA	V	1372	SUUPARUA
MAYBE	!SUUPI-N(I)	A	0456	SUUPINI
ALL DAY	!SUU-TAV(A)	A	0252	SUUTAVA
MAYBE	!SUUV(A)	A	0455	SUUVA
KISS	SU!WAINKE	V	1519	SUWAINKE
BREATHE	SU!WA-KA	V	1310	SUWAKA
BREATH	SU!WA-P(E)	N	2821	SUWAPE
FOOT-	TA!-	N	2066	TA
SUMMER	TA!C(A)	N	2806	TACA
TOMORROW	TA!?IK(A)	A	0263	TAIKA
ROOF/TOP	TA!KA(A)	N	2593	TAKAA
TOP/ROOF	TA!KA(A)	N	2593	TAKAA
PANT-LEG	TA!KUS(A)	N	2582	TAKUSA
ENCIRCLE	TAKWI-NTUI	V	1492	TAKWINTUI
WE-DU (INCL)	TA!M(I)	N	2002	TAMI
YOU-OR-ME/ONE OF US	TA!MI-WANT(E)	N	2019	TAMIWANTE
KICK	TA!NGA	V	1386	TANGA
KNEE	TA!NG(A)	N	2075	TANGA
SOUTH	TA!NTEVAI-T	A	0222	TANTEVAIT
NORTHERNER	TA!NTEI-C(I)	N	2120	TANTEICI
NORTH	TA!NTEI-P	A	0221	TANTEIP
SPLIT/CUT DOWN	TA!PAKI-N?(A)	V	1504	TAPAKINA
SPLIT ASUNDER	TA!PAKI	V	81504	TAPAKI
CUT DOWN/SPLIT	TA!PAKI-N?(A)	V	1504	TAPAKINA
PIG/BACON/PORK	TA!PANG(A)	N	2203	TAPANGA
PORK/PIG	TA!PANG(A)	N	2203	TAPANGA
PIG	TA!PANGA-C(I)	N	2242	TAPANGACI
BACON/PIG/PORK	TA!PANG(A)	N	2203	TAPANGA
DRY/DRY UP	TA!PAS(E)	V	1084	TAPASE
POLICE/LAWMAN	TA!PICAC(I)	N	2112	TAPICACI
TIE	TAPIC(A)	V	1509	TAPICA
LAWMAN/POLICE	TA!PICAC(I)	N	2112	TAPICACI
TOUCH WITH FOOT OR TOE	TA-!PIK(A)	V	1168	TAPIKA
CHOP	TA!POK(A)	V	1320	TAPOKA
HOT	TA!RU?I	V	1077	TARUI
EAST	TA!SEANTE-PA-T	A	0223	TASEANTEP
DAWN	TA!SEANT(E)	N	2801	TASEANTE
TOE	TA-!SE(E)	N	2080	TASEE
ANT	TA!SIAV(I)	N	2202	TASIAVI
TOE-NAIL/CLAW	TA!SICO?(O)	N	2083	TASICOO
CLAW/TOE-NAIL	TA!SICO?(O)	N	2083	TASICOO
HUMID/STICKY	TA!SOVORO	V	1078	TASOVORO
ROOT	TA-!TAKUSA-PAGAP(E)	N	2510	TATAKUSAP
OPEN	TA!TEWIN?A	V	1409	TATEWINA
BIG TOE	TA-!TOG(O)	N	2055	TATOGO
CHIPMUNK	TA!VA?AC(I)	N	2251	TAVAACI
DAY	TA!VA-J(E)	N	2802	TAVAJE
SUN/DAY	TA!VA-PEC(I)	N	2611	TAVAPECI
DAY/SUN	TA!VA-PEC(I)	N	2611	TAVAPECI
SKINNY/DRIED UP/SHRIVELED	TA!VASE-KWAIPEW	V	51083	TAVASEKWA
DRY	TA!VASE	V	1074	TAVASE
DRY UP	TA!VASE-KWA?I	V	1083	TAVASEKWA
HIT/STONE	TA!V(I)	V	1379	TAVI
HAMMER	TA!VI-NUMP(E)	N	2558	TAVINUMPE
HARE	TA!VU-C(I)	N	2230	TAVUCI
LITTLE HARE	TA!VU-RUAC(I)	N	92230	TAVURUACI
MAN	TA!W?A-C(I)	N	2114	TAWACI
MALE (HUMAN)/MAN	TA!W?A-C(I)	N	2114	TAWACI

TOOTH	TA!WA-MP(I)	N	2090	TAWAMPI
SUN-BURN	TA!WASE	V	1454	TAWASE
SUN-BURN	TA!WASE-NKWA?I	V	51454	TAWASENKW
WE-SEV (INCL)	TA!W(E)	N	2003	TAWE
(ACTIVE PARTICIPLE)	-T(E)		5124	TE
PERSON	TE!-	N	2125	TE
PLACE (FOR)	-TEA(A)	N	5262	TEAA
FREEZE	TE!?ASE	V	1368	TEASE
TAKE AWAY	TE!CAWA	V	1458	TECAWA
(PASSIVE) (AGENTLESS)	-TE(E)		5120	TEE
MOUTH	!TEEMP(A)	N	2084	TEEMPA
GROUND/FLOOR	!TEERAV(I)	N	2547	TEERAVI
FLOOR/GROUND	!TEERAV(I)	N	2547	TEERAVI
OUTSIDE/OUTDOORS	!TEERAVA-NT	A	0239	TEERAVANT
TAKE A PICTURE OF	TE!GA	V	1555	TEGA
ACT	TE!GAI	V	1469	TEGAI
PICTURE/SNAPSHOT	TE!GAP(E)	N	2584	TEGAPE
HUNGER	TE!GE-?IV(A)	N	2822	TEGEIVA
HUNGER	TE!GE-?I-VA-V(E)	N	92822	TEGEIVAVE
NEED/LACK	TE!GE?I	V	1125	TEGEI
LACK/HUNGER	TE!GE-?IV(A)	N	2822	TEGEIVA
HUNGRY-PL	TE!GE-JUMI	V	1053	TEGEJUMI
BURY (SOMEONE)	TE-!GUU	V	1315	TEGUU
COOK	TE!GU?UNI	V	1327	TEGUUNI
DEER	TE!HIJ(A)	N	2221	TEHIJA
DEERHIDE	TE!HIJA-V(E)	N	2647	TEHIJAVE
EAT	TE!KA	V	1355	TEKA
FOOD/FOODSTORE	TE!KA-P(I)	N	2550	TEKAPI
TABLE	TE!KA-TEA(A)	N	2613	TEKATEAA
TURN INTO	TE!KAW?I	V	1471	TEKAWI
BAKE	TE!M?A	V	1302	TEMA
RICH	TE!MPI-KA-T	V	1088	TEMPIKAT
ROCK/MONEY	TE!MP(I)	N	2575	TEMPI
MONEY/ROCK	TE!MP(I)	N	2575	TEMPI
HUNT	TE!NA	V	1389	TENA
FOLLOW/HUNT	TE!NA	V	1389	TENA
COME UP/FR SOUTH	TE!NANKWA	V	1258	TENANKWA
STORY/NEWS	TE!NIA-P(E)	N	2824	TENIAPE
TELL	TE!NIA	V	1204	TENIA
NEWS/STORY	TE!NIA-P(E)	N	2824	TENIAPE
THROW DOWN	TE!RAVI	V	1464	TERAVI
RUN-SG/DASH/START (CAR)	TE!RAWI?I	V	1431	TERAWII
START-SG (CAR)/RUN	TE!RAWI?I	V	1431	TERAWII
ROOT	TE!RENA-V(E)	N	2631	TERENAVE
YET/BUT	TE!RIJAW	A	0403	TERIJAW
BUT/YET/THOUGH	TE!RIJAW	A	0403	TERIJAW
THOUGH/YET	TE!RIJAW	A	0403	TERIJAW
GRASS	TE!SEV(I)	N	2412	TESEVI
FORGET/LEAVE BEHIND	TE-!SUMEA	V	1132	TESUMEA
FORGET	TE-!SUMEA-SUTUI	V	51132	TESUMEASU
SEEM	-TETU?A--NI(I)	V	1908	TETUANII
PINON NUTS	TE!V(A)	N	2418	TEVA
WOLF	TE!VAC(I)	N	2250	TEVACI
WANT/ASK	-TEVICU	V	1917	TEVICU
WORK	TE!VIJAWI	V	1517	TEVIJAWI
ASK	TE!VINGI	V	1201	TEVINGI
GROUND/DIRT/EARTH	TE!VIP(E)	N	2534	TEVIPE
EARTH/DIRT/GROUND	TE!VIP(E)	N	2534	TEVIPE
DIRT/EARTH/GROUND	TE!VIP(E)	N	2534	TEVIPE
TRUE	TE!VISAMP(A)	V	1091	TEVISAMPA

COUNTRY/LAND	TE'VIW(A)	N	2532	TEVIWA
LAND/COUNTRY	TE'VIW(A)	N	2532	TEVIWA
CLOSE	TE'WA	V	1323	TEWA
DOOR/CLOSING	TE'WA-P(E)	N	2536	TEWAPE
SOUND/MAKE A SOUND	TE'WAVAGA	V	1449	TEWAVAGA
MAKE A SOUND/SOUND	TE'WAVAGA	V	1449	TEWAVAGA
FAST	TE'WENI	A	0332	TEWENI
TEA	'TII	N	2615	TII
HEAD	TO'C(I)	N	2071	TOCI
HAIR	TO'CI-VE?A-V(E)	N	2068	TOCIVEAVE
IN MIDST OF	TO'GOI-	A	0281	TOGOI
SERVES HIM RIGHT	TO'GOI-?UNI-NGU-CA?A-K( )	I	8105	TOGOIUNIN
MIDDAY	TO'GOI-TAVA-J(E)	N	2816	TOGOITAVA
APPEAR/SHOW UP	TO'KWIMAW?E	V	1252	TOKWIMAWE
YEAR/WINTER	TO'M(O)	N	2805	TOMO
WINTER/YEAR	TO'M(O)	N	2805	TOMO
HIT/PUNCH/STAB	TO'N(A)	V	1378	TONA
BULL	'TOORO?(O)	N	2212	TOOROO
STAB	TO'POSI-GI	V	1506	TOPOSIGI
STAB/PIERCE	TO'POSI-KI-NKE	V	81506	TOPOSIKIN
WHITE	TO'SA-GA	V	1015	TOSAGA
STICK IN	TO'SIKWA	V	1451	TOSIKWA
SHORT	TO'VI-CI	V	1027	TOVICI
SHORT ONE	TO'VI-PECIW(E)	N	2127	TOVIPECIW
(+SEV OBJ)	-TU		5153	TU
BECOME (A NOUN)/TURN (ADJ)	-TU?A	V	1902	TUA
SON	'TU(A)	N	2032	TUA
TO/AT/TOWARD (MOTION)	-TU(A)	P	0150	TUA
TOWARD/AT/TO (MOTION)	-TU(A)	P	0150	TUA
AT/TOWARD/TO (MOTION)	-TU(A)	P	0150	TUA
DIRTY	TU'CA-GA(I)	V	1082	TUCAGAI
DIRT	TU'CA-V(I)	N	2626	TUCAVI
SKY	TU'GUMP(A)	N	2601	TUGUMPA
FLOUR	TU'HIV(I)	N	2549	TUHIVI
CAUSE/MAKE/LET	-TUI	V	1002	TUI
LET/MAKE/CAUSE	-TUI	V	1002	TUI
MAKE/CAUSE/LET	-TUI	V	1002	TUI
MOUNTAIN LION	TU'K(U)	N	2235	TUKU
MEAT	TU'KUAV(I)	N	2572	TUKUAVI
CAT	TU'KU-PUNKU-C(I)	N	2214	TUKUPUNKU
TOMATO	TU'MIRUS(I)	N	2425	TUMIRUSI
STRING	TU'NAP(E)	N	2610	TUNAPE
THICK	TU'NKUKA	V	1030	TUNKUKA
BLACK/DARK	TU'PA-GA	V	1005	TUPAGA
DARK/BLACK	TU-'PA-GA	V	1005	TUPAGA
SLIP LOOSE/UNTIE	TU'PAKI	V	1536	TUPAKI
WAKE	TU'PUN?I	V	1476	TUPUNI
NEGRO	TU'PUNUA-C(I)	N	2136	TUPUNUACI
DARK	TU-'PUNUWA	V	1008	TUPUNUWA
TORTILLA	TURU'TI?A	N	2641	TURUTIA
FLOUR/S.T.GROUND	TU'SUP(E)	N	2548	TUSUPE
GET-PL-OBJ/TAKE/CATCH	TU'?UMA	V	1294	TUUMA
CATCH-PL-OBJ/TAKE/RECEIVE	TU'?UMA	V	1294	TUUMA
TAKE-PL-OBJ/GET/CATCH	TU'?UMA	V	1294	TUUMA
SLIP LOOSE/UNTIE	TU'VAKI	V	1535	TUVAKI
NIGHT-TIME	TU'WAN(U)	N	2804	TUWANU
THAT/THOSE (INVIS)	U'-	N	82015	U
SMELL/SNIFF	U'GWI	V	1159	UGWI
SNIFF/SMELL	U'GWI	V	1159	UGWI
SMELL/SNIFF	U'GWI-KA(I)	V	1160	UGWIKAI

SNIFF/SMELL	U'GWI-KA(I)	V	1160	UGWIKAI
THAT/THOSE (INVIS)	U-'KA-	N	92015	UKA
CHARCOAL/COAL	U'KWIV(E)	N	2526	UKWIVE
THEY (INVIS)	U-'M(E)	N	2012	UME
HE/SHE (INVIS)	U'NG(A)	N	2009	UNGA
WEAR	U'NI-A-NI?I	V	1479	UNIANII
MAKE	U'NI-NUPERU	V	1473	UNINUPERU
IN (LOC)	-UPA?(A)	P	0104	UPAA
INTO	-UPA?A-TU(A)	P	0105	UPAATUA
OUT FROM INSIDE	-UPA?A-TE-MANANKW(A)	P	0125	UPAATEMAN
THAT/THOSE (INVIS)	U-'R(E)	N	2015	URE
IS S STILL THE CASE	U'REE	I	8135	UREE
RESEMBLE (SOMETHING INVIS)	U-'RU?A	V	1004	URUA
HAVE/OWN	U-'RU?A	V	1003	URUA
WALK-SC	U-'RUA	V	1268	URUA
BE LIKE (SOMETHING INVIS)	U-'RU?A	V	1004	URUA
GO/LEAVE	U'RUA-KWA?I	V	81268	URUAKWAI
WALK AROUND	U-'RUA-VORO	V	91268	URUAVORO
ROPE	U'RUMP(E)	N	2594	URUMPE
CICADA	U'SIWANAV(I)	N	2216	USIWANAVI
ALL THE TIME/ALWAYS	U'TUSAMP(A)	A	0253	UTUSAMPA
THEN	'?UU	I	9016	UU
BE/DO	'UUNII	V	1000	UUNII
DO/BE	'UUNII	V	1000	UUNII
BE	'UUNII-KA(I)	V	1001	UUNIIKAI
THERE (INVIS)	U-'WAN	A	0227	UWAN
ON/AT (LOC)	-VA(A)	P	0102	VAA
FUTURE	-VA(A)	T	5102	VAA
AT/ON (LOC)	-VA(A)	P	0102	VAA
IN ORDER TO	-VAAC	S	0423	VAAC
ON/-TOP OF (LOC)	-VA?AN(A)	P	0106	VAANA
ONTO	-VAA-NTU(A)	P	0103	VAANTUA
ONTO/ON TOP OF (MOTION)	-VA?A-NTU(A)	P	0107	VAANTUA
AWAY FROM	-VAA-NTE-MANANKW(A)	P	0123	VAANTEMAN
ABOUT	-VACE	P	0122	VACE
BESIDE	-VA-JEW(I)	P	0112	VAJEWI
BARREL	VA'RIR(I)	N	2502	VARIRI
FROM/OF	-VAW(A)	P	0165	VAWA
OF/FROM	-VAW(A)	P	0165	VAWA
(ABSOLUTIVE)	-V(E)	N	5201	VE
ONE'S OWN (IIIRD PERS)	-V(E)	S	2017	VE
LANGUAGE	-VE	S	5240	VE
PAST (DUR)	-VE(E)	T	5104	VEE
(ABSOLUTIVE)	-V(I)	N	5202	VI
BEHIND	-VIN?AP(A)	P	0110	VINAPA
BEHIND	-VIN?APA-CU(A)	P	0111	VINAPACUA
WINDOW	VI'NTANA?(A)	N	2620	VINTANAA
MARBLE	VO'LITA?(A)	N	2571	VOLITAA
GO TO-PL	-VORO	V	1914	VORO
MOVING AROUND/AROUND	-VORO	V	1915	VORO
AROUND/MOVING AROUND	-VORO	V	1915	VORO
GLASS (DRINKING)	VU'TIJA?AV(E)	N	2553	VUTIJAAVE
BOAT	'VUUT(I)	N	2509	VUUTI
WITH (INSTR)	-W(A)	P	0170	WA
DOG	WA'?ACUG(U)	N	2224	WAACUGU
SCORPION	'WAAMPAKWIC(I)	N	2245	WAAMPAKWI
WEB/NET	'WAANAA-V(E)	N	2637	WAANAAVE
NET/WEB	'WAANAA-V(E)	N	2637	WAANAAVE
SHOUT	WA'?ANGI	V	1534	WAANGI
HORSE	WA'?AROV(I)	N	2231	WAAROVI

HORSESHOE	WA!?AROVI-MPAGAP(E)	N	2649	WAAROVIMP
BARK	WA!?AWI	V	1520	WAAWI
BEE	WA!CAV(I)	N	2207	WACAVI
PUT-SG-OBJ	WA!CE	V	1421	WACE
ELECT/PUT	WA!CE	V	1421	WACE
FOUR	WA!CEW	A	0504	WACEW
THROUGH	-WAGA-RU(A)	P	0117	WAGARUA
FROG	WA!GATA-C(I)	N	2229	WAGATACI
ENTER-PL	WA!GI	V	1358	WAGI
VERY (ADJ)/ALMOST (VERB)	WA!HA-	A	0301	WAHA
BOTH	WA!HA-	A	0602	WAHA
TWO	WA!HA	A	0502	WAHA
ALMOST (VERB)/VERY (ADJ)	WA!HA-	A	0301	WAHA
GET/BECOME	-WAI	V	1903	WAI
GO TO-SG	-WA?I	V	1913	WAI
WITH (ACCOMP)	-WA?(I)	P	0172	WAI
NEG	-WA?(I)	S	0451	WAI
COME FR EAST/WEST	WA!KI	V	1259	WAKI
STAND-PL	WA!MI	V	1274	WAMI
MAKE A WEB	WA!NA-RU	V	1401	WANARU
ANTELOPE	WA!NC(I)	N	2260	WANCI
COW	WA!NKASI(I)	N	2217	WANKASII
FROM	-WANK(U)	P	0160	WANKU
PART OF/SOME OF	-WANTE	P	0190	WANTE
SOME/PART OF	-WANTE	P	0190	WANTE
CRAWL	WA!VA	V	1332	WAVA
STAND (UP)-PL	WA-!WAMI	V	1282	WAWAMI
PENIS	!WE(A)	N	2078	WEA
POUR	WE!COI	V	1417	WECOI
WORK	!WEEKA	V	1518	WEEKA
DROP-SG/FALL	WE!?I	V	91351	WEI
FALL-SG/DROP	WE!?I-KU	V	1351	WEIKU
LOST-SG/FALL/DROP	WE!?I-KU	V	1351	WEIKU
DROP-SG/FALL	WE!?I-KU	V	1351	WEIKU
STAND-SG	WE!NE	V	1273	WENE
DANCE	WE!NEMI	V	1344	WENEMI
RAKE/SHAVE (BODY)	WE!N?OGI	V	1427	WENOGI
SHAVE (BODY)/RAKE	WE!N?OGI	V	1427	WENOGI
DANGLE	WE!PANTUI	V	1522	WEPANTUI
HANG/SPREAD	WE!PARA	V	1374	WEPARA
SPREAD/HANG	WE!PARA	V	1374	WEPARA
JUMP	WE!PUKI	V	1385	WEPUKI
WHITTLE	WE!SIVO?ONA	V	1493	WESIVOONA
WIPE	WE!TUC(A)	V	1491	WETUCA
HANG	WE!WAI	V	1516	WEWAI
STAND (UP)-SG	WE-!WENE	V	1281	WEWENE
FLY	WI!CI	V	1366	WICI
BIRD	WI!CI?IC(I)	N	2208	WICIICI
FLY OFF-SG	WI!CI-KU	V	1433	WICIKU
AIRPLANE/FLYING OBJECT	WI!CI-N?UMP(E)	N	2645	WICINUMPE
KNIFE	WI!H(I)	N	2565	WIHI
GREASE	!WIIWAV(I)	N	2557	WIIWAVI
OIL/GREASE	!WIIWAV(I)	N	2557	WIIWAVI
CHOLLA	WI!JUTAMP(E)	N	2406	WIJUTAMPE
WINE	!WINE(I)	N	2621	WINEI
FEATHER/WING	WI!SIA-V(I)	N	2543	WISIAVI
WING/FEATHER	WI!SIA-V(I)	N	2543	WISIAVI

ENGLISH-CHEMEHUEVI WORD LIST

ENGLISH-CHEMEHUEVI WORD LIST

ABOUT	=VACE	P	0122	VACE
ACT	TE'GAI	V	1469	TEGAI
ACTUALLY/THOUGH	=SAP(A)	A	0405	SAPA
AFRAID	I'JAVAGA	V	1041	IJAVAGA
AFTER (SUBORDINATOR)	=C(I)		5132	CI
AFTER (SUBORDINATOR)	=K(A)		5133	KA
AGED	=HEGAC( )	N	5255	HEGAC
AGO/IN (TIME)/AWAY	'KWAE	A	0251	KWAE
AIRPLANE/FLYING OBJECT	WI'CI=N?UMP(E)	N	2645	WICINUMPE
AIR/WIND	NE'GAR(E)	N	2619	NEGARE
ALL DAY	'SUU=TAV(A)	A	0252	SUUTAVA
ALL THE TIME/ALWAYS	U'TUSAMP(A)	A	0253	UTUSAMPA
ALL/EVERY	MA'N(O)	A	0601	MANO
ALMOST (VERB)/VERY (ADJ)	WA'HA=	A	0301	WAHA
ALREADY/LONG AGO	'EES(U)	A	0254	EESU
ALSO/TOO/STILL	=S(U)	S	0401	SU
ANGRY	NA'NGA=JA?I	V	1042	NANGAJAI
ANT	A'NGAAV(I)	N	2201	ANGAAVI
ANT	NA?ISA=?ANGAAV(I)	N	2258	NAISAANGA
ANT	TA'SIAV(I)	N	2202	TASIAVI
ANTELOPE	WA'NC(I)	N	2260	WANCI
ANUS	KWI'T(U)	N	2051	KWITU
ANY	HU'MPAIT(A)	A	0605	HUMPAITA
APART/SEPARATELY	NA'NIS( )	A	0333	NANIS
APPEAR/SHOW UP	NA'WA?ITE	V	1251	NAWAITE
APPEAR/SHOW UP	TO'KWIMAW?E	V	1252	TOKWIMAWE
APPLE	'AAPOROS(I)	N	2401	AAPOROSI
ARM	A'NGAV(E)	N	2052	ANGAVE
AROUND/MOVING AROUND	=VORO	V	1915	VORO
ARRIVE	PI'PICE	V	1253	PIPICE
ARROW/BULLET	'HUU	N	2501	HUU
ARROW=WEED	SA'WA=P(E)	N	2402	SAWAPE
ASHES	KU'CA=P(E)	N	2624	KUCAPE
ASHES	KUCA=W(A)	N	82624	KUCAWA
ASK	TE'VINGI	V	1201	TEVINGI
ASK FOR	NA'RE	V	1301	NARE
AT/ON (LOC)	=VA(A)	P	0102	VAA
AT/TOWARD/TO (MOTION)	=TU(A)	P	0150	TUA
AUNT (MA OLD SI)	MA'WE?A	N	2041	MAWEA
AUNT (FA SI)	PA'HA	N	2040	PAHA
AWAY	=KWA?(I)	A	0220	KWAI
AWAY FROM	=VAA=NTE=MANANKW(A)	P	0123	VAANTEMAN
AWAY/FROM NOW/AGO	'KWAE	A	0251	KWAE
BABY	E'NGAPIC(I)	N	2101	ENGAPICI
BACK	'HO(A)	N	2053	HOA

BACON/PIG/PORK	TA!PANG(A)	N	2203	TAPANGA
BAD	E!VE-J	I	9001	EVEJ
BAD	E!VE-NI	V	51043	EVENI
BAD	E!VE-PEWE-NI	V	1044	EVEPEWENI
BADGER	HU!N(A)	N	2204	HUNA
BAD/ILL	E!VE-JU--NI	V	1043	EVEJUNI
BAKE	TE!M?A	V	1302	TEMA
BARK	WA!?AWI	V	1520	WAAWI
BARK/SKIN/HIDE/FUR	A!SI-?A	N	72054	ASIA
BARREL-CACTUS	!PAAVIIV(E)	N	2403	PAAVIIVE
BARREL	VA!RIR(I)	N	2502	VARIRI
BASKET	KO!C(I)	N	2638	KOCI
BASKET	NE!NGA-PI-V(E)	N	2503	NENGAPIVE
BASKET	NE!NGA-P(I)	N	2504	NENGAPI
BAT	!PAACA?AC(I)	N	2205	PAACAACI
BE	!UUNII-KA(I)	V	1001	UUNIIKAI
BE LIKE (SOMETHING INVIS)	U-!RU?A	V	1004	URUA
BEADS	!SUUKUR(I)	N	2505	SUUKURI
BEANS (MESQUITE)	O!P(I)	N	2404	OPI
BEAR	PA!PAW(A)	N	2206	PAPAWA
BEAUTIFUL/DELICIOUS	A!JAAMPI	V	1056	AJAAMPI
BEAVER	I!PIINA(A)	N	2261	IPIINAA
BECAUSE OF/FROM	-MANANKW(A)	P	0120	MANANKWA
BECOME/GET/TURN	-KWA?(I)	V	1901	KWAI
BECOME (A NOUN)/TURN (ADJ)	-TU?A	V	1902	TUA
BED	HA!VI-TEA(A)	N	2506	HAVITEAA
BEE	WA!CAV(I)	N	2207	WACAVI
BEER/SUDS/FOAM	!SARONC(I)	N	2642	SARONCI
BEFOREHAND	EI-	A	0282	EI
BEHIND	-VIN?AP(A)	P	0110	VINAPA
BEHIND	-VIN?APA-CU(A)	P	0111	VINAPACUA
BELLY/STOMACH	SA!P(E)	N	2081	SAPE
BELT	!NAAPAGAP(E)	N	2507	NAAPAGAPE
BEND	NO!KOM?A	V	1303	NOKOMA
BE/DO	!UUNII	V	1000	UUNII
BE/HAVE	-GA(I)	V	1120	GAI
BESIDE	-VA-JEW(I)	P	0112	VAJEWI
BIG	HO!KO	V	1021	HOKO
BIG TOE	TA-!TOG(O)	N	2055	TATOGO
BIRD	WI!CI?IC(I)	N	2208	WICIICI
BITE	KE!?(I)	V	1304	KEI
BITTER	MO!HARA	V	1071	MOHARA
BITTER THING	MO!HARA-T(E)	N	2643	MOHARATE
BLACKBIRD	PA!GACUKWIT(A)	N	2209	PAGACUKWI
BLACK/DARK	TU!PA-GA	V	1005	TUPAGA
BLANKET-CAST-AWAY	MU!RU?I-GAIP(E)	N	92508	MURUIGAIP
BLANKET	MU!RU?(I)	N	2508	MURUI
BLOOD	!PAE-P(I)	N	2082	PAEPI
BLOOD	!PAE-W(A)	N	82082	PAEWA
BLOW	PU!KWI	V	1483	PUKWI
BLUE/GREEN	SA!WA-GA	V	1006	SAWAGA
BOAT	!VUUT(I)	N	2509	VUUTI
BODY	NE!WE-?A-V	N	2056	NEWEAV
BOIL	NO!JOGA	V	1305	NOJOGA
BONE	O!HOV(E)	N	2057	OHOVE
BOOT	TA-!TAKUSA-PAGAP(E)	N	2510	TATAKUSAP
BOTH	WA!HA-	A	0602	WAHA
BOTHERED/WORRIED	KAC HA!EC PI!JUWA?	V	8101	KACHAECPI
BOW/GUN	A!C(E)	N	2511	ACE
BOX	KA!HON(I)	N	2512	KAHONI

BOY (LITTLE)	!AIPAC(I)	N	2102	AIPACI
BRAIN	CO!PIK(I)	N	2058	COPIKI
BRAINLESS	MU!GUAT	I	9002	MUGUAT
BRAVE/FORMIDABLE	SA!PIJA?I	V	1045	SAPIJAI
BREAD	SA!MITA?A-P(I)	N	2513	SAMITAAPI
BREAK/SNAP (STRING)	KA!PAK(I)	V	1309	KAPAKI
BREAK/SNAP	KE!RUKWI	V	1307	KERUKWI
BREAK/SNAP (STICK)	KO!POK(I)	V	1308	KOPOKI
BREAK/SHATTER	PU!RU?AI-KU	V	1306	PURUAIKU
BREAST/UDDER	PI!H(I)	N	2059	PIHI
BREATH	SU!WA-P(E)	N	2871	SUWAPE
BREATHE	SU!WA-KA	V	1310	SUWAKA
BRING-SG-OBJ	!JAAKI	V	1254	JAAKI
BRING-PL-OBJ	JU!?A-KI	V	1255	JUAKI
BROTH/JUICE/FRUIT-	HU!VA-SA?AP(E)	N	2514	HUVASAAPE
BROWN	O!NTO-KA	V	1007	ONTOKA
BUCKET	PA-!JUA-NUMP(E)	N	2515	PAJUANUMP
BUFFALO/CAMEL	KU!C(U)	N	2210	KUCU
BUG	PI!KAGAAC(I)	N	2211	PIKAGAACI
BULL	!TOORO?(O)	N	2212	TOOROO
BULLET/ARROW	!HUU	N	2501	HUU
BUMP (HEAD)/HIT	CO-!KWIPA	V	1311	COKWIPA
BURN	KU!CIKI	V	1313	KUCIKI
BURN	NA!?I	V	1312	NAI
BURN UP	NA!?I-TUPIK(E)	V	1515	NAITUPIKE
BURST INTO TEARS	JA-!JAGA	V	1482	JAJAGA
BURY	!KUU	V	1314	KUU
BURY (SOMEONE)	NE-!NKUU	V	61314	NENKUU
BURY (SOMEONE)	TE-!GUU	V	1315	TEGUU
BUT	HU-!?URUA-GAI-SAP(A)	A	8120	HUURUAGAI
BUT/YET/THOUGH	TE!RIJAW	A	0403	TERIJAW
BUTTOCKS	KWI!TU-MUKW(I)	N	2060	KWITUMUKW
BUY	NA!RU-GA	V	1295	NARUGA
CACHE/FOOD STORE	NI!?I(A)	N	2516	NIIA
CAKE	!CAKE(I)	N	2517	CAKEI
CALL	NI!JA	V	1342	NIJA
CALL OVER	!PAI	V	1316	PAI
CAMEL/BUFFALO	KU!C(U)	N	2210	KUCU
CAMP/VILLAGE (ABANDONED)	KA!NI-P(E)	N	2518	KANIPE
CANE/WAND	!POOR(O)	N	2520	POORO
CAN/CONTAINER/METAL	NA!NKWARU?(U)	N	2519	NANKWARUU
CANYON/WASH	HU!WIP(I)	N	2521	HUWIPI
CAPE/SHAWL	NA!GAAP(E)	N	2522	NAGAAPE
CAR	ATA!MUP(I)	N	2524	ATAMUPI
CAR	!CAR(I)	N	2523	CARI
CARRY-SG-OBJ	JA!WI	V	1317	JAWI
CARRY-PL-OBJ	JU!?A	V	1318	JUA
CAT	!PUUS(I)	N	2213	PUUSI
CAT	TU!KU-PUNKU-C(I)	N	2214	TUKUPUNKU
CATCH-SG-OBJ/TAKE/RECEIVE	KWE!HE	V	1293	KWEHE
CATCH-PL-OBJ/TAKE/RECEIVE	TU!?UMA	V	1294	TUUMA
CAUSE/MAKE/LET	-TUI	V	1002	TUI
CERTAINLY	HE!VEE	I	9003	HEVEE
CHAIR	KA!RE-TEA(A)	N	2525	KARETEAA
CHARCOAL/COAL	U!KWIV(E)	N	2526	UKWIVE
CHASE	MA!NO	V	1319	MANO
CHASE	MA!NO?O	V	81319	MANOO
CHASE	MA!NO?O-K(O)	V	91319	MANOOKO
CHEMEHUEVI/INDIAN/PERSON	NE!W(E)	N	2103	NEWE
CHEMEH-HOUSE (ARROW-WEED)	SA!WA-KAN(I)	N	2527	SAWAKANI

CHEMEH-VALLEY	SI!WA?AVAAC(I)	N	2528	SIWAAVAAC
CHEST	NE!NGAP(E)	N	2092	NENGAPE
CHICKEN	KWA!ROJAW(I)	N	2215	KWAROJAWI
CHILD	PI!SO?OC(I)	N	2104	PISOOCI
CHIPMUNK	TA!VA?AC(I)	N	2251	TAVAACI
CHOLLA	WI!JUTAMP(E)	N	2406	WIJUTAMPE
CHOP	TA!POK(A)	V	1320	TAPOKA
CICADA	U!SIWANAV(I)	N	2216	USIWANAVI
CLAP HANDS	MA-!VACIGI	V	1321	MAVACIGI
CLAW/TOE-NAIL	TA!SICO?(O)	N	2083	TASICOO
CLEAN/FIX	HA!?E-TE-MAE	V	1322	HAETEMAE
CLIMB ON THAT	MA-RUKA-N?A	V	1256	MARUKANA
CLOSE/NEAR	CA!GIP( )	A	0240	CAGIP
CLOSE	TE!WA	V	1323	TEWA
CLOTH	MASI!KWARIP(I)	N	2529	MASIKWARI
CLOUD	PA!GENAV(E)	N	2530	PAGENAVE
COFFEE	!KUUPI(I)	N	2531	KUUPII
COLD (ILL)	MA!VA-	N	2835	MAVA
COLD	SE-!JA?I	V	1072	SEJAI
COLD	SE-!TU?I	V	1073	SETUI
COLLAPSE (OPEN STRUCTURE)	JE!PAK(I)	V	1324	JEPAKI
COLLAPSE (ENCLOSED STRUCTURE)	JO!KOK(I)	V	1325	JOKOKI
COLOR/MARK/PAINT	MA!?A	V	1326	MAA
COME OUT-SG	CI!PI	V	1260	CIPI
COME OUT-PL	CI!VUNGA	V	1263	CIVUNGA
COME TO-SG	-GI	V	1911	GI
COME TO-PL	-GI-VORO	V	1912	GIVORO
COME HERE	HE!VE	I	9004	HEVE
COME BACK	PA!JE-KII	V	1267	PAJEKII
COME DOWN/FR NORTH	PA!NANKWA	V	1257	PANANKWA
COME UP/FR SOUTH	TE!NANKWA	V	1258	TENANKWA
COME FR EAST/WEST	WA!KI	V	1259	WAKI
CONTAINER/CAN/METAL	NA!NKWARU?(U)	N	2519	NANKWARUU
CONTINUATIVE	-NI?I		5112	NII
COOK	TE!GU?UNI	V	1327	TEGUUNI
COOK/RIPE	KWA!SE	V	1328	KWASE
COPY CAT/COYOTE	SE!NA?AV(I)	N	2220	SENAAVI
CORN	HA!WIV(I)	N	2407	HAWIVI
CORNER	KO!MIWA	N	2625	KOMIWA
COST	NA-!WAGA-KA	V	91410	NAWAGAKA
COTTON	!KAATANIV(E)	N	2408	KAATANIVE
COULD	-NKU(U)		5117	NKUU
COULD	-NKUU-P(E)		5118	NKUUPE
COUNCIL	A!MPAGA-TU?I-KA-M(E)	N	2135	AMPAGATUI
COUNT/READ	!NIINGA	V	1329	NIINGA
COUNTRY/LAND	TE!VIW(A)	N	2532	TEVIWA
COVER	MA!VO?A	V	1330	MAVOA
COW	WA!NKASI(I)	N	2217	WANKASII
COW-KILLER (WHITE)	A!KAGUPIC(I)	N	2219	AKAGUPICI
COW-KILLER	HU!VACINOC(I)	N	2218	HUVACINOC
COYOTE	SE!NA?AV(I)	N	2220	SENAAVI
CRACK OPEN	NA!GEGI	V	1521	NAGEGI
CRADLE	KO!N(O)	N	2533	KONO
CRAMP/SHRINK	CO!NOK(A)	V	1331	CONOKA
CRAWL	WA!VA	V	1332	WAVA
CREEP	MA-!WAVA	V	1333	MAWAVA
CRY	JA!GA	V	1334	JAGA
CRYING SONG	JA!GA-HUVI-AV(E)	N	2840	JAGAHUVIA
CUCUMBER	KWI!JUKWIMP(I)	N	2409	KWIJUKWIM
CUT	CI!KWE	V	1335	CIKWE

CUT DOWN/SPLIT	TA!PAKI-N?(A)	V	1504	TAPAKINA
CUT OFF	CI!KAPIN?A	V	1340	CIKAPINA
CUT OFF	CI!KAVICA	V	1339	CIKAVICA
CUT/DICE	CI!PURU?(U)	V	1336	CIPURUU
CUT/NICK	!KO(A)	V	1337	KOA
CUT/SLICE	CI!KWA?ICA	V	1338	CIKWAICA
DAM	PA-!REWA-P(E)	N	2646	PAREWAPE
DANCE	WE!NEMI	V	1344	WENEMI
DANGEROUS/SCARY	I!JAVI-NTUARENI	V	1089	IJAVINTUA
DANGLE	WE!PANTUI	V	1522	WEPANTUI
DARK	TU-!PUNUWA	V	1008	TUPUNUWA
DARK/BLACK	TU-!PA-GA	V	1005	TUPAGA
DAUGHTER	PA!C(E)	N	2033	PACE
DAWN	TA!SEANT(E)	N	2801	TASEANTE
DAY	TA!VA-J(E)	N	2802	TAVAJE
DAY AFTER DAY/EVERY DAY	!NAA-TA?IK(A)	A	0255	NAATAIKA
DAY/SUN	TA!VA-PEC(I)	N	2611	TAVAPECI
DEAD-SG/TIRED/SUFFER	JA!?(I)	V	1046	JAI
DEAD-PL/TIRED/SUFFER	JU!M?A	V	1047	JUMA
DEER	TE!HIJ(A)	N	2221	TEHIJA
DEERHIDE	TE!HIJA-V(E)	N	2647	TEHIJAVE
DEFECATE	KWI!CA	V	1552	KWICA
DELICIOUS/LOVELY	A!JAAMPI	V	1056	AJAAMPI
DESTROY	E!VE-MAW?(E)	V	1345	EVEMAWE
DIE	JA!?I-KWA?(I)	V	1346	JAIKWAI
DIFFERENT	KE!MAN	A	0551	KEMAN
DIFFERENT ONE	KE!MANC(I)	N	2143	KEMANCI
DIFFICULT	SA!PI?AI	V	1090	SAPIAI
DIG	!HOORA	V	1347	HOORA
DIG A WELL	PA-!HORA	V	1348	PAHORA
DIRT	TU!CA-V(I)	N	2626	TUCAVI
DIRT/EARTH/GROUND	TE!VIP(E)	N	2534	TEVIPE
DIRTY	TU!CA-GA(I)	V	1082	TUCAGAI
DISMANTLE/TEAR DOWN	CA!JOKWIN?A	V	1554	CAJOKWINA
DITCH	PA-!VO(O)	N	2627	PAVOO
DO WHAT	HA!GA-NI	A	0212	HAGANI
DOCTOR/MEDICINE-MAN	PU!HAGANT(E)	N	2105	PUHAGANTE
DOG	CA-!WACUG(U)	N	2223	CAWACUGU
DOG	WA!?ACUG(U)	N	2224	WAACUGU
DOG/BITCH	PICA!RAK(I)	N	2225	PICARAKI
DOG/PET	PU!NKUU-C(I)	N	2222	PUNKUUCI
DOLLAR/PESO	!PIISU?(U)	N	2535	PIISUU
DOOR/HOUSE-CLOSING	KA!NI-TEWAP(E)	N	2537	KANITEWAP
DOOR/CLOSING	TE!WA-P(E)	N	2536	TEWAPE
DO/BE	!UUNII	V	1000	UUNII
DOUGH/SQUISHY STUFF	SA!MI-KAR(E)	N	2628	SAMIKARE
DRAW/WRITE	PO!?O	V	1349	POO
DREAM	NO!NOSI	V	1131	NONOSI
DRESS/PUT ON DRESS	KWA!SU-NTU	V	1553	KWASUNTU
DRESS	KWA!S(U)	N	2538	KWASU
DRINK	HI!VI	V	1350	HIVI
DROP-PL/FALL	HO!HONONO?O	V	1352	HOHONONOO
DROP-PL/FALL	HO!NONO?O	V	91352	HONONOO
DROP-SG/FALL	WE!?I	V	91351	WEI
DROP-SG/FALL	WE!?I-KU	V	1351	WEIKU
DROWN	PA-!JA?I	V	1353	PAJAI
DROWN/SINK	PA-!JE?A-KI	V	1354	PAJEAKI
DRUNK-SG/TIRED/DEAD	JA!?I	V	1046	JAI
DRUNK-PL/TIRED/DEAD	JU!M?A	V	1047	JUMA
DRY	TA!VASE	V	1074	TAVASE

DRY UP	TA!VASE-KWA?I	V	1083	TAVASEKWA
DRY/DRY UP	TA!PAS(E)	V	1084	TAPASE
DUCK	CEG(A)	N	2262	CEGA
DUST	HU!KUMP(E)	N	2539	HUKUMPE
EAGLE	ME!NGIMPEC(I)	N	2252	MENGIMPEC
EAR	NA!NKA-V(E)	N	2061	NANKAVE
EARTH/DIRT/GROUND	TE!VIP(E)	N	2534	TEVIPE
EAST	TA!SEANTE-PA-T	A	0223	TASEANTEP
EASY TO/READY TO	!SUU-	A	0410	SUU
EAT	TE!KA	V	1355	TEKA
EDGE	!KEEWA(A)	N	2541	KEEWAA
EGG	NO!PAV(I)	N	2540	NOPAVI
EIGHT	!NAANCI	A	0508	NAANCI
ELECT/PUT	WA!CE	V	1421	WACE
EMPTY THERE	KAC U-!VAWI-WA?AT	I	8103	KACUVAWIW
EMPTY OUT	MU!PANG(A)	V	1356	MUPANGA
ENCIRCLE	TAKWI-NTUI	V	1492	TAKWINTUI
ENGAGE IN CONVERSATION	NI!MPEA	V	1484	NIMPEA
ENGLISH/WHITE-MAN	!HAIKU(U)	N	2106	HAIKUU
ENTER/PLANT	E!GA	V	1357	EGA
ENTER/SINK/SET	JE!?A-KI	V	1359	JEAKI
ENTERTAINMENT	KI!JA-P(E)	N	2831	KIJAPE
ENTER-PL	WA!GI	V	1358	WAGI
ESCAPE	NA-!WA-CIPI-NKE	V	1360	NAWACIPIN
EVENING	E!GA-P(E)	N	2803	EGAPE
EVEN/STRAIGHT	!SUUNAVA	V	1523	SUUNAVA
EVERY/ALL	MA!N(O)	A	0601	MANO
EVERY DAY/DAY AFTER DAY	!NAA-TA?IK(A)	A	0255	NAATAIKA
EXPENSIVE/COSTLY	MA-!WAGA	V	1085	MAWAGA
EXPLAIN/TEACH	!MAI-NKE	V	1203	MAINKE
EXPLAIN/SET STRAIGHT	NI!MUKUMPA	V	1202	NIMUKUMPA
EXTREMELY/VERY	!NAAKE-MEGA(I)	A	0303	NAAKEMEGA
EYE/SEED	PU!?IV(I)	N	2062	PUIVI
FALL-PL/DROP	HO!HONONO?O	V	1352	HOHONONOO
FALL-SG/DROP	WE!?I-KU	V	1351	WEIKU
FALL/STUMBLE/HIT	KWI!PA	V	1361	KWIPA
FAR	MI!JO	V	1020	MIJO
FAR	MI!JOT(O)	A	0228	MIJOTO
FARM	PA!SA-RU	V	1362	PASARU
FARMER/GROWER	PA!SA-RAWAC(I)	N	2107	PASARAWAC
FAST	TE!WENI	A	0332	TEWENI
FAST/IN A HURRY/QUICKLY	PI!TANG(A)	A	0322	PITANGA
FAT	JU!HU-GAI	V	1022	JUHUGAI
FAT	JU!HU-V(I)	N	2542	JUHUVI
FATHER	!MO(A)	N	2030	MOA
FEATHER/WING	WI!SIA-V(I)	N	2543	WISIAVI
FEEL	-SUMPA	V	1524	SUMPA
FEEL/TOUCH	MA!VIK(A)	V	1165	MAVIKA
FEMALE (NONHUMAN)	!PI(A)	N	92031	PIA
FENCE/CORRAL	KU!RAR(I)	N	2544	KURARI
FEW/A FEW	HI!MPA-JOK( )	A	0606	HIMPAJOK
FIELD/PASTURE	PA!S(A)	N	2545	PASA
FIGHT	NA-NE-MPAKA	V	1485	NANEMPAKA
FILL	PU!CAKU	V	1363	PUCAKU
FIND	MA!H(I)	V	1364	MAHI
FINGER	MA-!SE(E)	N	2063	MASEE
FINGER-NAIL	MA!SICO?(O)	N	2064	MASICOO
FINISH	-MA?AK(U)	V	1904	MAAKU
FINISH	-MAE	V	1905	MAE
FINISH (CONSUME)	MA!SUA	V	1365	MASUA

FIRE	KU'N(A)	N	2546	KUNA
FIRST	NA'ME	A	0256	NAME
FISH	PA'GE-C(I)	N	2226	PAGECI
FIST-FIGHT	NA-'RONA-P(E)	N	2829	NARONAPE
FIVE	MA'NEG	A	0505	MANEG
FIX/CLEAN	HA'?E-TE-MAE	V	1322	HAETEMAE
FLASH	CE'PEPE?E	V	1551	CEPEPEE
FLEA/LOUSE	'POO?AV(I)	N	2227	POOAVI
FLOAT	PA-'HUINA	V	1367	PAHUINA
FLOUR/GROUND	'TEERAV(I)	N	2547	TEERAVI
FLOUR	TU'HIV(I)	N	2549	TUHIVI
FLOUR/S.T.GROUND	TU'SUP(E)	N	2548	TUSUPE
FLOWER	SE'?IP(I)	N	2410	SEIPI
FLY	'MUUPIC(I)	N	2228	MUUPICI
FLY	WI'CI	V	1366	WICI
FLY OFF-PL	'JAASE	V	1434	JAASE
FLY OFF-SG	WI'CI-KU	V	1433	WICIKU
FOAM/BEER/SUDS	'SARONC(I)	N	2642	SARONCI
FOLLOW/HUNT	TE'NA	V	1389	TENA
FOOD STORE/CACHE	NI'?I(A)	N	2516	NIIA
FOOD/FOODSTORE	TE'KA-P(I)	N	2550	TEKAPI
FOOT	NA'MP(A)	N	2065	NAMPA
FOOT-	TA'-	N	2066	TA
FORGET	NA'SUMEA	V	1124	NASUMEA
FORGET	NA-'SUMEA-SUTUI	V	51124	NASUMEASU
FORGET/LEAVE BEHIND	TE-'SUMEA	V	1132	TESUMEA
FORGET	TE-'SUMEA-SUTUI	V	51132	TESUMEASU
FORK/FINGERED-THING	MA-'SEA-GANT(E)	N	2551	MASEAGANT
FORMER	-GAIP(E)	N	5220	GAIPE
FOUR	WA'CEW	A	0504	WACEW
FOX (LITTLE KIT-)	O'NCI(A)	N	2253	ONCIA
FREEZE	TE'?ASE	V	1368	TEASE
FROG	WA'GATA-C(I)	N	2229	WAGATACI
FROM	-WANK(U)	P	0160	WANKU
FROM/BECAUSE OF	-MANANKW(A)	P	0120	MANANKWA
FROM/OF	-VAW(A)	P	0165	VAWA
FRONT	PAJAA	N	2067	PAJAA
FRY	KU'SA?A	V	1369	KUSAA
FRYING-PAN	KU'SA?A-NUMP(E)	N	2552	KUSAANUMP
FUNNY	KI'JA-PITUA	V	1086	KIJAPITUA
FUR/PEEL/BARK/SHELL	A'SI-?A	N	72054	ASIA
FUTURE	-MPA(A)	T	5103	MPAA
FUTURE	-VA(A)	T	5102	VAA
GALLOP	NO'MAI-NUKWI	V	1370	NOMAINUKW
GANG/COMPANY/CLAN	JU'NAKAIM( )	N	2145	JUNAKAIM
GATHER	HA'MA-SUMPARU(I)	V	1371	MAMASUMPA
GATHER TOGETHER	'SUUPARUA	V	1372	SUUPARUA
GENEROUS ONE	NE-'MAGA-NT(E)	N	2144	NEMAGANTE
GET-PL-OBJ/TAKE/CATCH	TU'?UMA	V	1294	TUUMA
GET-SG-OBJ/TAKE/CATCH	KWE'HE	V	1293	KWEHE
GET UP	KWE'REKI	V	1512	KWEREKI
GET/BECOME	-WAI	V	1903	WAI
GHOST/SPIRIT	E'NEP(I)	N	2108	ENEPI
GIRL (LITTLE)	NA'?INCI-C(I)	N	2109	NAINCICI
GIVE	MA'GA	V	1292	MAGA
GIVE/HAND	-RUA	V	1291	RUA
GLASSES (EYE)	PA'NA-PU?(I)	N	2555	PANAPUI
GLASS (PANE)/ICE	PA-'REASE-P(E)	N	2554	PAREASEPE
GLASS (DRINKING)	VU'TIJA?AV(E)	N	2553	VUTIJAAVE
GLOVE	MA-'SONK(U)	N	2648	MASONKU

GO AWAY-PL	PA'GI-KWA?I	V	81269	PAGIKWAI
GO TO-PL	-VORO	V	1914	VORO
GO TO-SG	-WA?I	V	1913	WAI
GOOD	HA'?E-C(I)	V	51050	HAECI
GOOD	HA'?E-TE-	V	1050	HAETE
GOOD/FINE	HA'?E-C	I	9005	HAEC
GOOD/FINE	HA'?E-J	I	9006	HAEJ
GOOD/WELL	HA'?E-JU	V	1048	HAEJU
GOOD/NICE/FUN	HA'?E-P(E)	V	1049	HAEPE
GOPHER	MEJ(E)	N	2263	MEJE
GO/LEAVE	U'RUA-KWA?I	V	81268	URUAKWAI
GRAB	CA'?I	V	1526	CAI
GRAPES	I'JAAV(I)	N	2411	IJAAVI
GRAPE VINE	I'JAAVI-MP(E)	N	2423	IJAAVIMPE
GRASS	TE'SEV(I)	N	2412	TESEVI
GRAVY	SA'?AP(I)	N	2556	SAAPI
GREASE	'WIIWAV'I)	N	2557	WIIWAV
GREEN/BLUE	SA'WA-GA	V	1006	SAWAGA
GREY	KU'CA-KA	V	1009	KUCAKA
GROUND/FLOOR	'TEERAV(I)	N	2547	TEERAVI
GROUND/DIRT/EARTH	TE'VIP(E)	N	2534	TEVIPE
GROW	NA'NA	V	1373	NANA
GUN/BOW	A'C(E)	N	2511	ACE
GUTS	SA'GWI-V(E)	N	2085	SAGWIVE
HAIR	TO'CI-VE?A-V(E)	N	2068	TOCIVEAVE
HAMMER	TA'VI-NUMP(E)	N	2558	TAVINUMPE
HAND-	MA'-	N	2070	MA
HAND	MO'?O-V(E)	N	2069	MOOVE
HANDLE	MA-'UNI-NI?I	V	1558	MAUNINII
(AND) THEN	'HAITA	A	0402	HAITA
HANG	WE'WAI	V	1516	WEWAI
HANG/SPREAD	WE'PARA	V	1374	WEPARA
HARE	TA'VU-C(I)	N	2230	TAVUCI
HAT	'KAICOG(O)	N	2629	KAICOGO
HATE	E'VE-SUNTU?I	V	1126	EVESUNTUI
HAVE A COLD	MA'VA-JA?(I)	V	81046	MAVAJAI
HAVE A NAME	NI'JA-GA	V	1057	NIJAGA
HAVE SORE BACK	PI'KA-HOA-GA(I)	V	1513	PIKAHOAGA
HAVE/BE	-GA(I)	V	1120	GAI
HAVE/OWN	U-'RU?A	V	1003	URUA
(CACTUS)	O'SARAMP(E)	N	2405	OSARAMPE
(DIMINUATIVE)	-C(I)	N	5250	CI
HEAD-	CO'-	N	2072	CO
HEAD	TO'C(I)	N	2071	TOCI
HEAR/LISTEN	NA'NKA	V	1155	NANKA
HEAR/LISTEN	NA'NKA-KA(I)	V	1156	NANKAKAI
HEART	PI'JE-P(I)	N	2074	PIJEPI
HEART	PI'JE-W(I)	N	2073	PIJEWI
HEART	PI'JE-W(A)	N	82073	PIJEWA
HEAVY	PE'TEJA	V	1031	PETEJA
HECK	'HAINU 'HEEN	I	9015	HAINUHEEN
HELP	MA'REGAI	V	1375	MAREGAI
HERE	I-'VA	A	0225	IVA
HE/SHE (HERE)	I'NG(A)	N	2007	INGA
HE/SHE (VIS)	MA'NG(A)	N	2008	MANGA
HE/SHE (INVIS)	U'NG(A)	N	2009	UNGA
HIDE	'AAGA-WACE	V	1377	AAGAWACE
HIDE/FUR/SKIN/BARK	A'SI-?A	N	72054	ASIA
HILL	'KAAMP(E)	N	2559	KAAMPE
HIT/FALL/STING (SCORPION)	KWI'PA	V	1361	KWIPA

HIT/PUNCH/STAB	TO!N(A)	V	1378	TONA
HIT/STONE	TA!V(I)	V	1379	TAVI
(NOMINAL)	-P(E)		5140	PE
HOLD BACK	CA!?IKAI	V	1382	CAIKAI
HOLD	JA!WI-NI?I	V	1380	JAWINII
HOLE	HE!PEKI-C(E)	N	2562	HEPEKICE
HOLE	HO!PAKI-P(E)	N	2560	HOPAKIPE
HOLE	HO!PAKI-C(E)	N	2561	HOPAKICE
HOLEY/HAVE A HOLE	HE!PEKI	V	1023	HEPEKI
HOLEY/FULL OF HOLES	HE!VEGI-CA	V	1024	HEVEGICA
HORN	!AAP(E)	N	2086	AAPE
HORSE	WA!?AROV(I)	N	2231	WAAROVI
HORSESHOE	WA!?AROVI-MPAGAP(E)	N	2649	WAAROVIMP
HOT	A!REE-NI	V	1075	AREENI
HOT	KU!TUCAA	V	1070	KUTUCAA
HOT	KU!TUCI	V	1076	KUTUCI
HOT	TA!RU?I	V	1077	TARUI
HOUSE	KA!N(I)	N	2563	KANI
HOW MANY	HA!NO-PAI-JUJUM(E)	A	0210	HANOPAIJU
HOW MANY	HA!NO-PAI-T(E)	A	0211	HANOPAITE
HOW/WHY	HA!GANIGA(I)	A	0202	HAGANIGAI
(PASSIVE) (AGENTLESS)	-TE(E)		5120	TEE
HIDE	!AAGA-MUSI	V	1376	AAGAMUSI
HUMID/STICKY	TA!SOVORO	V	1078	TASOVORO
HUNGER	TE!GE-?IV(A)	N	2822	TEGEIVA
HUNGER	TE!GE-?I-VA-V(E)	N	92822	TEGEIVAVE
HUNGRY-PL	TE!GE-JUMI	V	1053	TEGEJUMI
HUNT	JA!HI	V	1486	JAHI
HUNT	TE!NA	V	1389	TENA
HURT-SELF	NA-!HUKWIVI	V	1384	NAHUKWIVI
HURT	PA!KA-NKE	V	1383	PAKANKE
HUSBAND	KU!M(A)	N	2038	KUMA
I	!NEE	N	2001	NEE
I	!NEENI	N	92001	NEENI
I DUNNO	KWA!?IJA	I	8150	KWAIJA
I THINK	!AAROO	I	8130	AAROO
I WISH	HA!GANIS	I	8140	HAGANIS
I WISH	!PII	I	9010	PII
ICE/FROZEN WATER/GLASS	PA-!REASE-P(E)	N	2554	PAREASEPE
ILL/BAD	E!VE-JU--NI	V	1043	EVEJUNI
IN	-AGAV( )	P	0113	AGAV
IN	-NAG(A)	P	0118	NAGA
IN FRONT OF	-PAJA?A-VA(A)	P	0115	PAJAAVAA
IN (LOC)	-UPA?(A)	P	0104	UPÁA
IN (TIME)/AGO/FROM NOW	!KWAE	A	0251	KWAE
IN-LAW	NA!?ISA-HIW(A)	N	2146	NAISAHIWA
IN MIDST OF	TO!GOI-	A	0281	TOGOI
IN ORDER TO	-VAAC	S	0423	VAAC
IN VAIN	!HEE-	A	0307	HEE
INDIAN/CHEMEHUEVI/PERSON	NE!W(E)	N	2103	NEWE
INSIST ON/KEEP ON	PE!NKA-	A	0280	PENKA
INSTRUMENT	-NUMP(E)	S	5261	NUMPE
INTO	-UPA?A-TU(A)	P	0105	UPAATUA
IS S STILL THE CASE	U!REE	I	8135	UREE
ITCH	PI!JAGANK(E)	V	1527	PIJAGANKE
IT'S COLD	A!JEE	I	9008	AJEE
IT'S HOT	A!REE	I	9009	AREE
JACK-RABBIT	KA!M(E)	N	2232	KAME
JUICE/BROTH/SOUP	HU!VA-SA?AP(E)	N	2514	HUVASAAPE
JUICE/SAP/SOUP	HU!VA-V(E)	N	2603	HUVAVE

JUMP	WE!PUKI	V	1385	WEPUKI
JUST (NOW/THEN)	O!NO-	A	0257	ONO
JUST/IN VAIN	!HEE-	A	0307	HEE
KANGAROO RAT	PA!J?(E)	N	2233	PAJE
KEEP ON/INSIST ON	PE!NKA-	A	0280	PENKA
KEY	CI!KWI-CUI-NUMP(E)	N	2564	CIKWICUIN
KICK	TA!NGA	V	1386	TANGA
KILL-PL-OBJ/SCOLD	KO!GO?I	V	21388	KOGOI
KILL-PL-OBJ/SCOLD	KO!?I	V	1388	KOI
KILL-PL-OBJ	MA!JUMA	V	1390	MAJUMA
KILL-SG-OBJ/SCOLD	PA!KA	V	1387	PAKA
KIN/RELATIVE	!HIIW(A)	N	2111	HIIWA
KIN/RELATIVE	!NAAPAGAP(E)	N	2110	NAAPAGAPE
KISS	SU!WAINKE	V	1519	SUWAINKE
KNEE	TA!NG(A)	N	2075	TANGA
KNIFE	WI!H(I)	N	2565	WIHI
KNOW HOW TO/CAN	-PAKI		5114	PAKI
KNOW/UNDERSTAND/LEARN	PU!TUCUGA	V	1121	PUTUCUGA
LACK/HUNGER	TE!GE-?IV(A)	N	2822	TEGEIVA
LAKE	PA-!GARE-R(E)	N	2566	PAGARERE
LAND/COUNTRY	TE!VIW(A)	N	2532	TEVIWA
LANGUAGE	A!MPAGA-P(E)	N	2830	AMPAGAPE
LANGUAGE	-VE	S	5240	VE
LATER	!PIIKAJ(U)	A	0258	PIIKAJU
LAUGH	KI!JA-NI?I	V	1391	KIJANII
LAUNDER	MA!HA	V	1392	MAHA
LAUNDER	PA-!RAKWICA	V	1393	PARAKWICA
LAWMAN/POLICE	TA!PICAC(I)	N	2112	TAPICACI
LAZY/TIRE OF	MA!WEA	V	1059	MAWEA
LEAD	!MOI	V	1394	MOI
LEAF	NA!NKA-V(A)	N	2424	NANKAVA
LEARN/KNOW	PU!TUCUGA	V	1121	PUTUCUGA
LEATHER	PA!CAV(E)	N	2567	PACAVE
LEAVE	PI!NAW?I-NKE	V	1398	PINAWINKE
LEFT	!KWII-	A	0231	KWII
LEFT-HANDED ONE/SOUTH-PAW	!KWII-GANT(E)	N	2113	KWIIGANTE
LEFT/TO THE-	!KWII-MI-TU(A)	A	0233	KWIIMITUA
LEG	JU!?(U)	N	2076	JUU
LESS	MI!?AU-NCI-N	A	0306	MIAUNCIN
LESS THAN	-RUKA-TUA-C( )	P	0196	RUKATUAC
LET/MAKE/CAUSE	-TUI	V	1002	TUI
LETTER	PO!?O-KAT(E)	N	2569	POOKATE
LETTER	PO!?O-P(E)	N	2568	POOPE
LIE-SG	HA!VI	V	1275	HAVI
LIE-PL	KWA!VI	V	1276	KWAVI
LIE/FIB	KWI!TA-RENIA	V	1395	KWITARENI
LIE (DOWN)-SG	HA-!HAVI	V	1283	HAHAVI
LIE (DOWN)-PL	KWA-!KWAVI	V	1284	KWAKWAVI
LIGHT	PA!NA	V	1010	PANA
LIGHT	PA!NA-KA-T(E)	N	2815	PANAKATE
LIKE	HA!?E-SUNTU?I	V	1127	HAESUNTUI
LISTEN/HEAR	NA!NKA	V	1155	NANKA
LISTEN/HEAR	NA!NKA-KA(I)	V	1156	NANKAKAI
LITTLE BOY	!AIPAC(I)	N	2102	AIPACI
LITTLE GIRL	NA!?INCI-C(I)	N	2109	NAINCICI
LITTLE HARE	TA!VU-RUAC(I)	N	92230	TAVURUACI
LIVE	NE!WE-GA(I)	V	1054	NEWEGAI
LIVER	NE!WEMP(I)	N	2087	NEWEMPI
LIVE/RESIDE	KA!NI-GAI	V	1396	KANIGAI
LIZARD	SE!GEPIC(I)	N	2234	SEGEPICI

LONG AGO/ALREADY	!EES(U)	A	0254	FESU
LONG TIME	E!WITU	A	0260	EWITU
LONG	PA!?A-NTOGA	V	1025	PAANTOGA
LONG AGO	-PEGA(I)	S	0259	PEGAI
LOOK FOR	PU!SAGAI	V	1397	PUSAGAI
LOOK/SEE	!PUUNII	V	1151	PUUNII
LOOK/SEE	!PUUNII-KA(I)	V	1152	PUUNIIKAI
LOST-PL/FALL/DROP	HO!HONONO?O	V	1352	HOHONONOO
LOST-SG/FALL/DROP	WE!?I-KU	V	1351	WEIKU
LOTS OF	A!VA?A-	A	0603	AVAA
LOUD/TALL	PA!?A-NI	V	51029	PAANI
LOUSE/FLEA	!POO?AV(I)	N	2227	POOAVI
LOVELY/PRETTY/DELICIOUS	A!JAAMPI	V	1056	AJAAMPI
LOVELY	A!JAAMPI-TU?A--NI(I)	V	41056	AJAAMPITU
LOVELY	A!JAAMPI--NI(I)	V	51056	AJAAMPINI
LOVE/RESPECT/ADMIRE	A!JA-WA?I	V	1128	AJAWAI
LUMBER	HO!V(I)	N	2570	HOVI
LUNG/LUNGS	!SOO-G( )	N	2093	SOOG
LUNG/LUNGS	!SOO-V(I)	N	62093	SOOVI
MAKE	!MAE	V	1400	MAE
MAKE A SHIRT	NA!RO?O-NTU	V	1511	NAROONTU
MAKE A SOUND/SOUND	TE!WAVAGA	V	1449	TEWAVAGA
MAKE	U!NI-NUPERU	V	1473	UNINUPERU
MAKE A WEB	WA!NA-RU	V	1401	WANARU
MAKE/CAUSE/LET	-TUI	V	1002	TUI
MALE (NONHUMAN)	KU!M(A)	N	92038	KUMA
MALE (HUMAN)/MAN	TA!W?A-C(I)	N	2114	TAWACI
MAN	TA!W?A-C(I)	N	2114	TAWACI
MARBLE	VO!LITA?(A)	N	2571	VOLITAA
MARRY (FEMALE SUBJECT)	KU!MA-RU	V	1529	KUMARU
MARRY (RECIPR)	NA-!GUMA-RU	V	1525	NAGUMARU
MARRY (MALE SUBJECT)	PI!WA-RU	V	1528	PIWARU
MAYBE	!SUUPI-N(I)	A	0456	SUUPINI
MAYBE	!SUUV(A)	A	0455	SUUVA
MEAT	TU!KUAV(I)	N	2572	TUKUAVI
MEDICINE	NA-!VUAGANUMP(E)	N	2573	NAVUAGANU
MEDICINE-MAN/DOCTOR	PU!HAGANT(E)	N	2105	PUHAGANTE
MELT/DISSOLVE	!SAI	V	1405	SAI
MESQUITE BEANS	O!P(I)	N	2404	OPI
MESQUITE	O!PI-MP(E)	N	2413	OPIMPE
METAL/CAN/CONTAINER	NA!NKWARU?(U)	N	2519	NANKWARUU
MEXICAN	HA!?AT-AIKU(U)	N	2115	HAATAIKUU
MIDDAY	TO!GOI-TAVA-J(E)	N	2816	TOGOITAVA
MILK	PI!HI-VOV(I)	N	2574	PIHIVOVI
MIX IN WATER	PA-!RU	V	1406	PARU
MOCCASIN	PA!CACIV(E)	N	2651	PACACIVE
MOHAVE	A!JAT(A)	N	2116	AJATA
MOMENTANEOUS	-NG(U)		5113	NGU
MONEY/ROCK	TE!MP(I)	N	2575	TEMPI
MOON	MI!JAROGOPIC(I)	N	2576	MIJAROGOP
MORE THAN	-GAA-VA?A-C( )	P	0195	GAAVAAC
MORE/ -ER	-PICA(A)	A	0305	PICAA
MORONGO/SERRANO	!KEEMAA-NEW(E)	N	2117	KEEMAANEW
MOTHER	!PI(A)	N	2031	PIA
MOULT	HO!VI	V	1407	HOVI
MOUNTAINOUS	!KAA-KAIVA-GAI	V	1093	KAAKAIVAG
MOUNTAIN	!KAIV(A)	N	2577	KAIVA
MOUNTAIN PEAK	!KAIVA-KUVAI?A(A)	N	2578	KAIVAKUVA
MOUNTAIN TOP	!KAIVA-TAKA(A)	N	2579	KAIVATAKA
MOUNTAIN SHEEP	NA!G(A)	N	2236	NAGA

MOUNTAIN LION	TU'K(U)	N	2235	TUKU
MOUSE	PU!?INCAC(I)	N	2237	PUINCACI
MOUTH	!TEEMP(A)	N	2084	TEEMPA
MOVE	NU!JUKWA	V	1261	NUJUKWA
MOVE/SHOVE	MA-!NUJUKWA-NKE	V	1439	MANUJUKWA
MOVIES/FLICKERS	PA!NA-CIC( )	N	2652	PANACIC
MOVING AROUND/AROUND	-VORO	V	1915	VORO
MULE	!MUUNA?(A)	N	2238	MUUNAA
NAME	!NIA-V(I)	N	2823	NIAVI
NARROW	NA!CUKWI	V	1032	NACUKWI
NAVAJO	PA-!GAWIC(I)	N	2118	PAGAWICI
NEAR	CA!GIP(A)	A	0229	CAGIPA
NECK	KUR(A)	N	2088	KURA
NECKLACE/NECK THING	!KAAG(I)	N	2630	KAAGI
NEED/LACK	TE!GE?I	V	1125	TEGEI
NEG	-?AP(A)	S	0452	APA
NEG	-WA?(I)	S	0451	WAI
NEGRO	TU!PUNUA-C(I)	N	2136	TUPUNUACI
NEPHEW	MA!WE-?EC( )	N	2042	MAWEEC
NET/WEB	!WAANAA-V(E)	N	2637	WAANAAVE
NEW/YOUNG	!AE-GA	V	1087	AEGA
NEWS/STORY	TE!NIA-P(E)	N	2824	TENIAPE
NIGHT-TIME	TU!WAN(U)	N	2804	TUWANU
NINE	JU!WIP	A	0509	JUWIP
NOMADS/TRAVELERS	PA!GI-KA-REM	N	2119	PAGIKAREM
NORTHERNER	TA!NTEI-C(I)	N	2120	TANTEICI
NORTH	TA!NTEI-P	A	0221	TANTEIP
NO/NOT	KA!C(U)	A	0450	KACU
NOSE	MU!V(I)	N	2077	MUVI
NOW/TODAY	!AE-V(I)	A	0261	AEVI
NUDGE	MA-!JEMPUGI	V	1408	MAJEMPUGI
OCEAN	HU!CIP(A)	N	2623	HUCIPA
OCOTILLO	E!NEPI-POROMP(E)	N	2414	ENEPIPORO
OFFSPRING/-LET	-RUAC(I)	S	5251	RUACI
OF/FROM	-VAW(A)	P	0165	VAWA
OH	HA!?AE	I	9011	HAAE
ORANGE	ORANGE(I)	N	2416	ORANGEI
OIL/GREASE	!WIIWAV(I)	N	2557	WIIWAVI
OLD	!EITE-PEW	V	1092	EITEPEW
OLD LADY/OLD WOMAN	!MAAPEC(I)	N	2121	MAAPECI
OLD MAN	E!SA-VEC(I)	N	2122	ESAVECI
OLD MAN	!NAAPEW(E)	N	2123	NAAPEWE
OLD WOMAN/OLD LADY	!MAAPEC(I)	N	2121	MAAPECI
OLDER SISTER	PA!C(I)	N	2035	PACI
OLDER BROTHER	PA!V(I)	N	2034	PAVI
ON	-MANK(U)	P	0162	MANKU
ONE	-PECIW(E)	N	5230	PECIWE
ONE	!SUU	A	0501	SUU
ONE'S OWN (IIIRD PERS)	-V(E)	S	2017	VE
ONESELF	NA-!HUMP(A)	A	0350	NAHUMPA
ONION	SI!VUJA?(A)	N	2415	SIVUJAA
ONLY	-SAMP(A)	A	0604	SAMPA
ON/-TOP OF (LOC)	-VA?AN(A)	P	0106	VAANA
ON/AT (LOC)	-VA(A)	P	0102	VAA
ONTO	-VAA-NTU(A)	P	0103	VAANTUA
ONTO/ON TOP OF (MOTION)	-VA?A-NTU(A)	P	0107	VAANTUA
OPEN	TA!TEWIN?A	V	1409	TATEWINA
OTHER/ANOTHER	!KEEMAANC(I)	A	0550	KEEMAANCI
OUCH	A!NE	I	9012	ANE
OUT FROM INSIDE	-UPA?A-TE-MANANKW(A)	P	0125	UPAATEMAN

OUTDOORS/OUTSIDE	JE'HEVA-NT	A	0238	JEHEVANT
OUTSIDE/OUTDOORS	'TEERAVA-NT	A	0239	TEERAVANT
OVER	-GAA-VA?(A)	P	0116	GAAVAA
OWI	MU'HUMPEC(I)	N	2239	MUHUMPECI
PAINT/MARK/COLOR	MA'?A	V	1326	MAA
PAIUTE	PA'RAN?EG(I)	N	2124	PARANEGI
PAILET/RUG	SA'MAP(E)	N	2580	SAMAPE
PANT-LEG	TA'KUS(A)	N	2582	TAKUSA
PANTS	KU'S(A)	N	2583	KUSA
PAPER	PA'PILIV(E)	N	2581	PAPILIVE
PART OF/SOME OF	-MANTE	P	0190	MANTE
PART OF/SOME OF	-WANTE	P	0190	WANTE
PAST (MOM)	-MPE(E)	T	5105	MPEE
PAST (DUR)	-VE(E)	T	5104	VEE
PATH/TRAIL/STREET/ROAD	PO'?(O)	N	2592	POO
PAY	NA-'WAGA-NKE	V	1410	NAWAGANKE
PEEL/SKIN/SHELL/FUR	A'SI-?A	N	72054	ASIA
PEEL/SKIN	A'SI-VO?A	V	1411	ASIVOA
PENIS	'WE(A)	N	2078	WEA
PERFECT	-CA(A)		5110	CAA
PERFECT	-KA(I)		5108	KAI
PERSON/CHEMEHUEVI/INDIAN	NE'W(E)	N	2103	NEWE
PERSON	TE'-	N	2125	TE
PET	MA'VANG?I	V	1412	MAVANGI
PET	PU'NK(U)	N	2240	PUNKU
PET/DOG	PU'NKUU-C(I)	N	2222	PUNKUUCI
PICK	'COOWAA	V	1413	COOWAA
PICTURE/SNAPSHOT	TE'GAP(E)	N	2584	TEGAPE
PICTURE OF SELF	NA-'REGAP(E)	N	92584	NAREGAPE
PIG	'KUUCI?(I)	N	2243	KUUCII
PIG	'PIINKIC(I)	N	2241	PIINKICI
PIG	TA'PANGA-C(I)	N	2242	TAPANGACI
PIG/BACON/PORK	TA'PANG(A)	N	2203	TAPANGA
PINCH	HI'NCUM?I	V	1414	HINCUMI
PINE-TREE	JU'VIMP(E)	N	2417	JUVIMPE
PINK	A'NKA-SIA-KA	V	1011	ANKASIAKA
PINON NUTS	TE'V(A)	N	2418	TEVA
PLACE (FOR)	-TEA(A)	N	5262	TEAA
PLAIN	JE'WAAV(I)	N	2586	JEWAAVI
PLANT/ENTER	E'GA	V	1357	EGA
PLANT	E'GA-P(E)	N	2419	EGAPE
PLANT/TREE	MA'HAV(E)	N	2420	MAHAVE
PLATE/DISH	HI'MPEC(I)	N	2640	HIMPECI
PLAY	'KIIJAA	V	1415	KIIJAA
POINTED OBJECT-	CI'-	N	2587	CI
POINT AT	MA-'GUGIKAI	V	1416	MAGUGIKAI
POKE HEAD IN SOMEWHERE	HU'CINI?I	V	1487	HUCINII
POLICEMAN/PERSON-CATCHER	NE-'NKWE-TUI-KAT(E)	N	2126	NENKWETUI
POLICE/LAWMAN	TA'PICAC(I)	N	2112	TAPICACI
PORK/PIG	TA'PANG(A)	N	2203	TAPANGA
POT	PA'MPEN?(I)	N	2588	PAMPENI
POTATOES	'PAAPAS(I)	N	2426	PAAPASI
POUR	WE'COI	V	1417	WECOI
PRESENT	-J(E)	T	5101	JE
PRESENT/PAST	-K(A)	T	5107	KA
PROUD	'NEA-P	V	1530	NEAP
PULL OUT	HO'VA	V	1418	HOVA
PULL	PI'JOGA	V	1495	PIJOGA
PUMPKIN	PA'RANGAR(A)	N	2421	PARANGARA
PURPLE	PA'ROWA-GA	V	1012	PAROWAGA

PUSH	MA!REKWIPA	V	1496	MAREKWIPA
PUT-PL-OBJ	JU!NA	V	1422	JUNA
PUT-SG-OBJ	WA!CE	V	1421	WACE
QUICKLY/IN A HURRY/FAST	PI!TANG(A)	A	0322	PITANGA
QUIETLY/STILL	!AA-	A	0330	AA
QUIETLY/SLOWLY	SA!MPAV(A)	A	0323	SAMPAVA
QUIETLY/SLOWLY	SA!MPAVA-NI	A	0324	SAMPAVANI
QUIETLY/SLOWLY	SU!MPAV(A)	A	0325	SUMPAVA
QUIETLY/SLOWLY	SU!MPAVA-NI	A	0326	SUMPAVANI
RADIO/RECORD-PLAYER	HU!VI-TU-NUMP(E)	N	2589	HUVITUNUM
RAIN	E!WA	V	1425	EWA
RAIN	E!WA-R(E)	N	2590	EWARE
RAISE/REAR	MA!?AWA?I	V	1499	MAAWAI
RAKE/SHAVE (BODY)	WE!N?OGI	V	1427	WENOGI
RAT	!KAAC(I)	N	2244	KAACI
RATTLE	KA!RAGA	V	1488	KARAGA
READ/COUNT	!NIINGA	V	1329	NIINGA
REAR	MA-!NANA-NKE	V	1381	MANANANKE
REAR/RAISE	MA!?AWA?I	V	1499	MAAWAI
RED	A!NKA-GA	V	1013	ANKAGA
REFLEXIVE/SELF	NA!-	S	2016	NA
RELATIVE/KIN	!HIIW(A)	N	2111	HIIWA
RELATIVE/KIN	!NAAPAGAP(E)	N	2110	NAAPAGAPE
RELATIVE PRONOUN	PE-	N	2025	PE
REMEMBER	SU-!MAI	V	1122	SUMAI
REMOTE PAST	-PEGA(I)	T	5106	PEGAI
RESEMBLE (SOMETHING HERE)	I-!CU?A	V	1004	ICUA
RESEMBLE (SOMETHING VIS)	MA-!RU?A	V	1004	MARUA
RESEMBLE (SOMETHING INVIS)	U-!RU?A	V	1004	URUA
RESULT	-KA(I)		5109	KAI
RETURN/TURN AROUND	KO!TO?O-NGU	V	1428	KOTOONGU
RETURN-PL	ME!NESI	V	1266	MENESI
RETURN-SG	PA!JE	V	1265	PAJE
RICH	TE!MPI-KA-T	V	1088	TEMPIKAT
RIGHT/TO THE-	PE!RA-MI-TU(A)	A	0234	PERAMITUA
RIND/PEEL/SKIN	A!SI-V(E)	N	2054	ASIVE
RIPE/COOK/BURN	KWA!SE	V	1328	KWASE
RIVER	PA-!GA(A)	N	2591	PAGAA
ROADRUNNER	E!C(A)	N	2259	ECA
ROAD/PATH/TRAIL/STREET	PO!?(O)	N	2592	POO
ROCK/MONEY	TE!MP(I)	N	2575	TEMPI
ROOF/TOP	TA!KA(A)	N	2593	TAKAA
ROOT	TE!RENA-V(E)	N	2631	TERENAVE
ROPE	U!RUMP(E)	N	2594	URUMPE
ROT	PI!KI	V	1429	PIKI
ROUND	MU!N?UNKI	V	1034	MUNUNKI
ROUND-DANCE	NE!KAP(E)	N	2825	NEKAPE
RUB WITH HAND	MA-!NURA	V	1532	MANURA
RUG/PALLET	SA!MAP(E)	N	2580	SAMAPE
RUN	NU!KWI	V	1430	NUKWI
RUN-PL/DASH	NA!RENA	V	1432	NARENA
RUN-SG/DASH/START (CAR)	TE!RAWI?I	V	1431	TERAWII
SACK/SHEATH	KU!NAV(E)	N	2595	KUNAVE
SADDLE	KA!RE-N?UMP(E)	N	2596	KARENUMPE
SALT	A!SO-NA	V	1514	ASONA
SALT/ALKALINE	A!SOMP(E)	N	2597	ASOMPE
SAND	O!TAV(E)	N	2598	OTAVE
SAP/GUM	SA!NA-P(I)	N	2632	SANAPI
SAP/JUICE/SOUP	HU!VA-V(E)	N	2603	HUVAVE
SAY	!MAI	V	1110	MAI

SCARED	I'JAPAKA	V	1040	IJAPAKA
SCORPION	'WAAMPAKWIC(I)	N	2245	WAAMPAKWI
SCRATCH	'COON?A	V	1501	COONA
SECRETLY/STEALTHILY	'AAGA-	A	0331	AAGA
SEED/EYE	PU'?IV(I)	N	2062	PUIVI
SEEM	-TETU?A--NI(I)	V	1908	TETUANII
SEE/LOOK	'PUUNII	V	1151	PUUNII
SEE/LOOK	'PUUNII-KA(I)	V	1152	PUUNIIKAI
SELF/REFLEXIVE	NA'-	S	2016	NA
SELL	NA'RUGA-TERAVI	V	1296	NARUGATER
SEND	NA-'JAWI?I-TUI	V	1435	NAJAWIITU
SERRANO/MORONGO	'KEEMAA-NEW(E)	N	2117	KEEMAANEW
SERVES HIM RIGHT	TO'GOI-?UNI-NGU-CA?A-K( )	I	8105	TOGOIUNIN
SET (SUN)/ENTER/SINK	JE'?A-KI	V	1359	JEAKI
SEVEN	MU'KWIS	A	0507	MUKWIS
SEVERAL	A'WAVANTE-M(E)	N	2018	AWAVANTEM
SEW	CA'PIKA?A	V	1436	CAPIKAA
SEW/WEAVE	CA'GA	V	1437	CAGA
SHARP	KE'WAGAI	V	1026	KEWAGAI
SHAVE (BODY)/RAKE	WE'N?OGI	V	1427	WENOGI
SHAWL/CAPE	NA'GAAP(E)	N	2522	NAGAAPE
SHEATH/SACK	KU'NAV(E)	N	2595	KUNAVE
SHEEP	NA'GA-VUNKUC(I)	N	2246	NAGAVUNKU
SHELL/SKIN/COVERING	A'SI-?A	N	72054	ASIA
SHIRT	NA'RO?(O)	N	2599	NAROO
SHOE	PA'GAP(E)	N	2600	PAGAPE
SHOOT/STING	KU'KWI	V	1438	KUKWI
SHOOT EA OTHER	NA-'GU-KWI	V	11438	NAGUKWI
SHORT	TO'VI-CI	V	1027	TOVICI
SHORT ONE	TO'VI-PECIW(E)	N	2127	TOVIPECIW
SHOULD	-GUU-P(E)		5116	GUUPE
SHOUT	WA'?ANGI	V	1534	WAANGI
SHOVE/MOVE	MA-'NUJUKWA-NKE	V	1439	MANUJUKWA
SHOW	NE-'MPUNI-TU?I	V	71151	NEMPUNITU
SHRINK/CRAMP	CO'NOK(A)	V	1331	CONOKA
SICK	NA'GAMI	V	1055	NAGAMI
SILVER	A'SI-GA	V	1014	ASIGA
SING	HU'VI-TU	V	1440	HUVITU
SINK/ENTER/SET	JE'?A-KI	V	1359	JEAKI
SINK/DROWN	PA-'JE?A-KI	V	1354	PAJEAKI
SISTER-IN-LAW	MU'SIMPIJ( )	N	2043	MUSIMPIJ
SIT (DOWN)-PL	JE-'JEWI	V	1280	JEJEWI
SIT (DOWN)-SG/STOP	KA-'KARE	V	1279	KAKARE
SIT-PL	JE'WI	V	1278	JEWI
SIT-SG	KA'RE	V	1277	KARE
SIX	NA'VA	A	0506	NAVA
SKINNY/DRIED UP/SHRIVELED	TA'VASE-KWAIPEW	V	51083	TAVASEKWA
SKIN/PEEL/RIND/BARK	A'SI-?A	N	72054	ASIA
SKIN/RIND/PEEL	A'SI-V(E)	N	2054	ASIVE
SKIN/PEEL	A'SI-VO?A	V	1411	ASIVOA
SKUNK	PO'NI(A)	N	2254	PONIA
SKY	TU'GUMP(A)	N	2601	TUGUMPA
SLAP	MA-'VACIKI	V	1441	MAVACIKI
SLAP	MA'VACIKINKE	V	1502	MAVACIKIN
SLEEP-PL	E'KOI	V	1446	EKOI
SLEEP-SG	E'PEI	V	1445	EPEI
SLEEP	E'PEI-P(E)	N	2828	EPEIPE
SLIP LOOSE/UNTIE	TU'PAKI	V	1536	TUPAKI
SLIP LOOSE/UNTIE	TU'VAKI	V	1535	TUVAKI
SLOWLY/QUIETLY	SA'MPAV(A)	A	0323	SAMPAVA

SLOWLY/QUIETLY	SA'MPAVA-NI	A	0324	SAMPAVANI
SLOWLY/QUIETLY	SU'MPAV(A)	A	0325	SUMPAVA
SMALL	MI'?AU-NCI	V	1028	MIAUNCI
SMALL ONE	MI'?AU-PECIW(E)	N	2128	MIAUPECIW
SMELL/STINK	PU'NUA	V	1079	PUNUA
SMELL/SNIFF	U'GWI	V	1159	UGWI
SMELL/SNIFF	U'GWI-KA(I)	V	1160	UGWIKAI
SMILE	KI'JA-SUI	V	1447	KIJASUI
SMILE	KI'JA-SUI-KAI	V	51447	KIJASUIKA
SMILE	KI'JA-SUI-NI?I	V	61447	KIJASUINI
SMOKE	KO'?A-TEKA	V	1510	KOATEKA
SMOKE	KWI'HI-KA	V	1538	KWIHIKA
SMOKE	KWI'HI-P( )	N	2633	KWIHIP
SMOOTH	PI'KAGA	V	1033	PIKAGA
SNAKE	'KWIIJAAC(I)	N	2247	KWIIJAACI
SNAP/BREAK (STRING)	KA'PAK(I)	V	1309	KAPAKI
SNAP/BREAK (STICK)	KO'POK(I)	V	1308	KOPOKI
SNEEZE	HA'W?ISI	V	1539	HAWISI
SNIFF/SMELL	U'GWI	V	1159	UGWI
SNIFF/SMELL	U'GWI-KA(I)	V	1160	UGWIKAI
SNOW	'NEEVAAV(I)	N	2602	NEEVAAVI
SNOW	NE'VA-?EWA	V	1556	NEVAEWA
SOAK/WASH	PA-'REGI	V	1448	PAREGI
SOMEONE	HA'NGA-SAP(A)	N	2023	HANGASAPA
SOME/PART OF	-MANTE	P	0190	MANTE
SOME/PART OF	-WANTE	P	0190	WANTE
SOMETHING	'HIIMARA?APEC(I)	N	2028	HIIMARAAP
SOMETHING	HI'MPE-SAP(A)	N	2022	HIMPESAPA
SON	'TU(A)	N	2032	TUA
SONG	HU'VI-AV(E)	N	2826	HUVIAVE
SOON/IN A MOMENT	'AE-VI-S(U)	A	0264	AEVISU
SO/LIKE THAT	'MAA	I	9014	MAA
SOUND	PA'GI	V	1171	PAGI
SOUND/MAKE A SOUND	TE'WAVAGA	V	1449	TEWAVAGA
SOUP/BROTH/JUICE	HU'VA-SA?AP(E)	N	2514	HUVASAAPE
SOUP/BROTH/JUICE	HU'VA-V(E)	N	2603	HUVAVE
SOUTH	TA'NTEVAI-T	A	0222	TANTEVAIT
SPEAK/TALK	A'MPAGA	V	1450	AMPAGA
SPIDER	HO'KOSO?A-V(I)	N	2255	HOKOSOAVI
SPIN/TURN	KWI'NU?UNGU	V	1452	KWINUUNGU
SPIRIT/GHOST	E'NEP(I)	N	2108	ENEPI
SPIT	KE'CIJON(A)	V	1503	KECIJONA
SPLIT/CUT DOWN	TA'PAKI-N?(A)	V	1504	TAPAKINA
SPLIT ASUNDER	TA'PAKI	V	81504	TAPAKI
SPOON	KWI'CARA?(A)	N	2605	KWICARAA
SPOON	SI'PUNA?(A)	N	2604	SIPUNAA
SPREAD (BLANKET)	SO'M?A	V	1540	SOMA
SPREAD/HANG	WE'PARA	V	1374	WEPARA
SPRING OR AUTUMN	JE'VAN	N	2807	JEVAN
SQUEEZE	MA'NCU	V	1505	MANCU
SQUIRREL	SI'KUC(I)	N	2256	SIKUCI
SQWAW BUSH	HU?UPI-V(E)	N	2428	HUUPIVE
SQWAW BUSH BERRY	HU?UP(I)	N	2429	HUUPI
STAB	TO'POSI-GI	V	1506	TOPOSIGI
STAB/PIERCE	TO'POSI-KI-NKE	V	81506	TOPOSIKIN
STAND-PL	WA'MI	V	1274	WAMI
STAND (UP)-PL	WA-'WAMI	V	1282	WAWAMI
STAND-SG	WE'NE	V	1273	WENE
STAND (UP)-SG	WE-'WENE	V	1281	WEWENE
STAR	'PUUCIV(E)	N	2606	PUUCIVE

START-SG (CAR)/RUN	TE!RAWI?I	V	1431	TERAWII
STEALTHILY/SECRETLY/SNEAKILY	!AAGA-	A	0331	AAGA
STEAL	E!JENGI	V	1453	EJENGI
STICK/WOOD	KU!KWAP(I)	N	2607	KUKWAPI
STICK IN	TO!SIKWA	V	1451	TOSIKWA
STILL/QUIETLY	!AA-	A	0330	AA
STILL/ALSO	-S(U)	S	0401	SU
STING/SHOOT	KU!KWI	V	1438	KUKWI
STING (SCORPION)/HIT	KWI!PA	V	1361	KWIPA
STINK/SMELL	PU!NUA	V	1079	PUNUA
STOMACH/BELLY	SA!P(E)	N	2081	SAPE
STOP-SG/SIT (DOWN)	KA-!KARE	V	1279	KAKARE
STOP	-MAUPA	V	1916	MAUPA
STORE/SHOP	NA!RU-GA-TUI-KAN(I)	N	2608	NARUGATUI
STORY/NEWS	TE!NIA-P(E)	N	2824	TENIAPE
STRAIGHT	MU!KUNT(A)	V	1542	MUKUNTA
STREAM	PA-!NUKWI-C(E)	N	2609	PANUKWICE
STRING	TU!NAP(E)	N	2610	TUNAPE
STRONG	MU!CU	V	1051	MUCU
SUCK/SUCKLE	PICE	V	1508	PICE
SUMMER	TA!C(A)	N	2806	TACA
SUN-BURN	TA!WASE	V	1454	TAWASE
SUN-BURN	TA!WASE-NKWA?I	V	51454	TAWASENKW
SUN/DAY	TA!VA-PEC(I)	N	2611	TAVAPECI
SUSPECT	HU-!MAI--NI	V	1112	HUMAINI
SWALLOW	JE!?EKI	V	1455	JEEKI
SWEATER	!KUUTA?(A)	N	2612	KUUTAA
SWEET	PI!JAGAMA	V	1080	PIJAGAMA
SWELL (STING/DISEASE)	PA!WA	V	1507	PAWA
SWELL/INFLATE	!POOCA	V	1456	POOCA
SWIFT	!KWAE-NKAI	V	1543	KWAENKAI
SWIM	NA!VAKE	V	1457	NAVAKE
TABLE	TE!KA-TEA(A)	N	2613	TEKATEAA
TAG-Q/HUH?	HE!NAA	A	0200	HENAA
TAIL	KWA!S(I)	N	2614	KWASI
TAKE (AWAY)	!JAA-KWA?I	V	1262	JAAKWAI
TAKE-SG-OBJ/GET/CATCH	KWE!HE	V	1293	KWEHE
TAKE CARE OF	MA!?AWA?I	V	1459	MAAWAI
TAKE AWAY	TE!CAWA	V	1458	TECAWA
TAKE A PICTURE OF	TE!GA	V	1555	TEGA
TAKE-PL-OBJ/GET/CATCH	TU!?UMA	V	1294	TUUMA
TALK/SPEAK	A!MPAGA	V	1450	AMPAGA
TALL	PA!?A	V	1029	PAA
TART	SE!GE-NKA	V	1094	SEGENKA
TART/TASTE TART	SE!GE-NKAMA	V	1095	SEGENKAMA
TASTE	KA!MA	V	1172	KAMA
TASTE	KE!MAKA?(A)	V	1163	KEMAKAA
TEA	!TII	N	2615	TII
TEACH/EXPLAIN	!MAI-NKE	V	1203	MAINKE
TEACH-SCHOOL	NE-!MPO?O-TUI	V	1460	NEMPOOTUI
TEACHER	NE-!MPO?O-TUI-KAT(E)	N	2129	NEMPOOTUI
TEACH	PO!?O-TU?I	V	1466	POOTUI
TEAR	CA!PEKIN?A	V	1462	CAPEKINA
TEAR	PE!KEKI	V	1461	PEKEKI
TELL	TE!NIA	V	1204	TENIA
TEN	MA!SEW	A	0510	MASEW
THAT/THOSE (VIS)	MA!-	N	82014	MA
THAT/THOSE (VIS)	MA-!KA-	N	92014	MAKA
THAT/THOSE (VIS)	MA-!KA-	N	92014	MAKA
THAT/THOSE (VIS)	MA-!R(E)	N	2014	MARE

THAT/THOSE (INVIS)	U'=	N	82015	U
THAT/THOSE (INVIS)	U=!KA=	N	92015	UKA
THAT/THOSE (INVIS)	U=!R(E)	N	2015	URE
THEN	!?UU	I	9016	UU
THEN/AND THEN	!HAITA	A	0402	HAITA
THERE (VIS)	MA=!VA	A	0226	MAVA
THERE (INVIS)	U=!WAN	A	0227	UWAN
THEY (HERE)	I=!M(E)	N	2010	IME
THEY (VIS)	MA=!M(E)	N	2011	MAME
THEY (INVIS)	U=!M(E)	N	2012	UME
THICK	TU!NKUKA	V	1030	TUNKUKA
THIEF	E!JENKAT(E)	N	2130	EJENKATE
THIN	CI!?AUC(I)	V	1035	CIAUCI
THINK	MU!GUARUNI?I	V	1463	MUGUARUNI
THINK	MU!GUARU	V	81463	MUGUARU
THINK	=SU=NTU?I	V	1129	SUNTUI
THINK	!MAI==NI	V	1111	MAINI
THIS/THESE	I'=	N	82013	I
THIS/THESE	I=!C(E)	N	2013	ICE
THIS/THESE	I=!KA=	N	92013	IKA
THOUGH	=GAI=SAP(A)		5169	GAISAPA
THOUGH/ACTUALLY	=SAP(A)	A	0405	SAPA
THOUGH/YET	TE!RIJAW	A	0403	TERIJAW
THREE	PA!HI	A	0503	PAHI
THROUGH	=WAGA=RU(A)	P	0117	WAGARUA
THROW DOWN	TE!RAVI	V	1464	TERAVI
THUMB	MA!=TOG(O)	N	2079	MATOGO
TIE	TAPIC(A)	V	1509	TAPICA
TIRED=SG/DRUNK/DEAD	JA!?I	V	1046	JAI
TIRED=PL/DRUNK/DEAD	JU!M?A	V	1047	JUMA
TO THE LEFT/LEFT	!KWII=MI=TU(A)	A	0233	KWIIMITUA
TO THE RIGHT/RIGHT	PE!RA=MI=TU(A)	A	0234	PERAMITUA
TOBACCO	KO!?A=P(I)	N	2634	KOAPI
TODAY/NOW	!AE=V(I)	A	0261	AEVI
TOE	TA=!SE(E)	N	2080	TASEE
TOE=NAIL/CLAW	TA!SICO?(O)	N	2083	TASICOO
TOGETHER	NA!MA=	A	0351	NAMA
TOMATO	TU!MIRUS(I)	N	2425	TUMIRUSI
TOMORROW	TA!?IK(A)	A	0263	TAIKA
TONGUE	A!GO=MP(I)	N	2089	AGOMPI
TOO/STILL	=S(U)	S	0401	SU
TOOTH	TA!WA=MP(I)	N	2090	TAWAMPI
TOP/ROOF	TA!KA(A)	N	2593	TAKAA
TORTILLA	TURU!TI?A	N	2641	TURUTIA
TO/AT/TOWARD (MOTION)	=TU(A)	P	0150	TUA
TOUCH	MA!PIK(A)	V	1166	MAPIKA
TOUCH/FEEL	MA!VIK(A)	V	1165	MAVIKA
TOUCH WITH FOOT OR TOE	TA=!PIK(A)	V	1168	TAPIKA
TOWARDS THAT WAY (DIRECTION)	MA=NANKWA=TU(A)	P	0121	MANANKWAT
TOWARD/AT/TO (MOTION)	=TU(A)	P	0150	TUA
TRACK	!NAAW(A)	N	2635	NAAWA
TRAIL	NA=!TENA	V	91389	NATENA
TRANSLATE/EXPLAIN	NI!MUKUMPA	V	1202	NIMUKUMPA
TRAVEL AROUND/WANDER	PA!GI=MPORO	V	91269	PAGIMPORO
TREE/PLANT	MA!HAV(E)	N	2420	MAHAVE
TROT	!POOJA	V	1465	POOJA
TRUE	TE!VISAMP(A)	V	1091	TEVISAMPA
TRY	=MAGA	V	1906	MAGA
TRY (IN VAIN)/UNABLE TO	=MUSU	V	1907	MUSU
TURN	CI!KWICUI	V	1489	CIKWICUI

TURN AROUND/RETURN/COME BACK	KO!TO?O-NGU	V	1428	KOTOONGU
TURN	!KWIIN?A	V	1470	KWIINA
TURN INTO	TE!KAW?I	V	1471	TEKAWI
TURN/SPIN	KWI!NU?UNGU	V	1452	KWINUUNGU
TURTLE	!AAJ(A)	N	2248	AAJA
TURTLE-SHELL	!AAJA-?ASI-V(E)	N	2616	AAJAASIVE
TWO	WA!HA	A	0502	WAHA
UDDER/BREAST	PI!H(I)	N	2059	PIHI
UGLY/BAD	E!CE-NI	V	1058	ECENI
UNABLE TO	-MUSU	V	1907	MUSU
UNDERSTAND	NA!NKA-VUTUCUGA	V	1123	NANKAVUTU
UNDERSTAND/KNOW/LEARN	PU!TUCUGA	V	1121	PUTUCUGA
UNDER	-RUK(A)	P	0108	RUKA
UNDER	-RUKA-TU(A)	P	0109	RUKATUA
UNTIE	HU!PA	V	1472	HUPA
UNTIE/COME UNTIED	HU!PA-KI	V	1545	HUPAKI
URINATE	SI!?I	V	1474	SII
URINATE (GO TO)	SI!?I-WA?I	V	31474	SIIWAI
URINE	SI!?IP(I)	N	2091	SIIPI
USITATIVE	-MI		5111	MI
UTE	JU!WITA(A)	N	2142	JUWITAA
VERY	!MEEGA(I)	A	0302	MEEGAI
VERY (ADJ)/ALMOST (VERB)	WA!HA-	A	0301	WAHA
VERY/EXTREMELY	!NAAKE-MEGA(I)	A	0303	NAAKEMEGA
VILLAGE (ABANDONED)/CAMP	KA!NI-P(E)	N	2518	KANIPE
VISIT	KA!NI?I	V	1475	KANII
VOMIT	PI!PITAN?(A)	V	1490	PIPITANA
WAKE	MA-!RUPUN?I-NKE	V	1477	MARUPUNIN
WAKE	TU!PUN?I	V	1476	TUPUNI
WALK THIS WAY	I-!CUA	V	1268	ICUA
WALK THAT WAY	MA-!RUA	V	1268	MARUA
WALK-PL	PA!GI	V	1269	PAGI
WALK-SG	U-!RUA	V	1268	URUA
WALK AROUND	U-!RUA-VORO	V	91268	URUAVORO
WANDER/TRAVEL AROUND	PA!GI-MPORO	V	91269	PAGIMPORO
WAND/CANE	!POOR(O)	N	2520	POORO
WANT	-SUAWA-GA(I)	V	1910	SUAWAGAI
WANT/ASK	-TEVICU	V	1917	TEVICU
WAR	NA!RUGANIP(E)	N	2827	NARUGANIP
WARM	JU!?ARA	V	1081	JUARA
WASH	PA-!CAGA	V	1478	PACAGA
WASH/CANYON	HU!WIP(I)	N	2521	HUWIPI
WATER	PA!-	N	92617	PA
WATER	!PAA	N	2617	PAÁ
WATER-TURTLE	PA-!?AAJ(A)	N	2249	PAAAJA
WATER GLASS	PA-!HIVI-NUMP(E)	N	2636	PAHIVINUM
WATERMELON	PA!VON?OKWI-C(E)	N	2422	PAVONOKWI
WE-DU (INCL)	TA!M(I)	N	2002	TAMI
WE (EXCL)	NE!M(I)	N	2004	NEMI
WE-SEV (INCL)	TA!W(E)	N	2003	TAWE
WEAK	JU!M?I-GA	V	1052	JUMIGA
WEAR	U!NI-A-NI?I	V	1479	UNIANII
WEAVE/SEW	CA!GA	V	1437	CAGA
WEAVE BASKET	NE!NGA	V	1480	NENGA
WEB/NET	!WAANAA-V(E)	N	2637	WAANAAVE
WELL	PA-!HOORA-P(E)	N	2618	PAHORAPE
WELL/GOOD	HA!?E-JU	V	1048	HAEJU
WEST	E!GA-TUA-NT	A	0224	EGATUANT
WHAT	HI!MP(E)	N	2020	HIMPE
WHAT/HOW	HA!NI(A)	A	0209	HANIA

WHEAT	A'CIT(A)	N	2427	ACITA
WHEN	HA'NOK(O)	A	0203	HANOKO
WHERE (MOTION)	HA'GA-RUA	A	0206	HAGARUA
WHERE (MOTION)	HA'GA-VAA-NTUA	A	0205	HAGAVAANT
WHERE (LOC)	HA'GA-VA	A	0204	HAGAVA
WHICH	HA'GAKAJA	A	0207	HAGAKAJA
WHILE (SUBORDINATOR)	-GA(I)		5130	GAI
WHILE (SUBORDINATOR)	-G(U)		5131	GU
WHILE (SUBORDINATOR)	-J(U)		5130	JU
WHIP/HIT/FALL	KWI'PA	V	1361	KWIPA
WHITE-MAN/ENGLISH	'HAIKU(U)	N	2106	HAIKUU
WHITE	TO'SA-GA	V	1015	TOSAGA
WHITTLE/SHAVE-WOOD	SI'VA	V	1481	SIVA
WHITTLE	SI'VA-VA	V	71481	SIVAVA
WHITTLE	WE'SIVO?ONA	V	1493	WESIVOONA
WHO	HA'NG(A)	N	2021	HANGA
WHO/WHAT	HI'N(I)	N	2024	HINI
WHY	HA'GA-RUAGA(I)	A	0208	HAGARUAGA
WHY/HOW	HA'GA-NI?ING(U)	A	0201	HAGANIING
WIDE	A'WA?ANO	V	1036	AWAANO
WIFE	PI'W(A)	N	2039	PIWA
WILD	I'JAGA	V	1546	IJAGA
WILLOW	SA'GAV(E)	N	2430	SAGAVE
WIND	NE'GAR(E)	N	2619	NEGARE
WINDOW	PA-'RE?ASE-TEWAP(E)	N	2639	PAREASETE
WINDOW	VI'NTANA?(A)	N	2620	VINTANAA
WINE	'WINE(I)	N	2621	WINEI
WING/FEATHER	WI'SIA-V(I)	N	2543	WISIAVI
WINTER/YEAR	TO'M(O)	N	2805	TOMO
WIPE	WE'TUC(A)	V	1491	WETUCA
WITH (INSTR)	-W(A)	P	0170	WA
WITH (ACCOMP)	-WA?(I)	P	0172	WAI
WOLF	TE'VAC(I)	N	2250	TEVACI
WOMAN	MA'MA?U(U)	N	2131	MAMAUU
WOOD/STICK/FIREWOOD	KU'KWAP(I)	N	2607	KUKWAPI
WOOL	PU'NKUV(E)	N	2622	PUNKUVE
WORK	TE'VIJAWI	V	1517	TEVIJAWI
WORK	'WEEKA	V	1518	WEEKA
WORM	PA'?A-V(I)	N	2257	PAAVI
WORRIED/BOTHERED	KAC HA'EC PI'JUWA?	V	8101	KACHAECPI
WOULD	-GU(U)		5115	GUU
WRITE/DRAW	PO'?O	V	1349	POO
YEAR/WINTER	TO'M(O)	N	2805	TOMO
YELLOW	O'WASIA-KA	V	1016	OWASIAKA
YES	HE'?E	I	9013	HEE
YESTERDAY	'KEAW(I)	A	0202	KEAWI
YET/BUT	TE'RIJAW	A	0403	TERIJAW
YOU-OR-ME/ONE OF US	TA'MI-WANT(E)	N	2019	TAMIWANTE
YOU-PL	ME'M(I)	N	2006	MEMI
YOU-SG	E'M(I)	N	2005	EMI
YOUNG PERSON	'AE-NEW(E)	N	2134	AENEWE
YOUNG BOY	'AIVAC(I)	N	2132	AIVACI
YOUNGER BROTHER	CA'KI?(I)	N	2036	CAKII
YOUNG GIRL	'NAINC(I)	N	2133	NAINCI
YOUNGER SISTER	NA'MI?(I)	N	2037	NAMII
YOUNGEST	PI'NGA-TE-M( )	N	2148	PINGATEM
(ABSOLUTIVE)	-C(E)	N	5207	CE
(ABSOLUTIVE)	-C(I)	N	5208	CI
(ABSOLUTIVE)	-MP(E)	N	5201	MPE
(ABSOLUTIVE)	-MP(I)	N	5202	MPI

(ABSOLUTIVE)	-P(E)	N	5201	PE
(ABSOLUTIVE)	-P(I)	N	5202	PI
(ABSOLUTIVE)	-V(E)	N	5201	VE
(ABSOLUTIVE)	-V(I)	N	5202	VI
(ACTIVE PARTICIPLE)	-T(E)		5124	TE
(-SG +ANIM SUBJ)	-M(E)		5150	ME
(YES-NO Q)	-RA(A)		5160	RAA
(+SEV SUBJ)	-KA		5152	KA
(+SEV OBJ)	-TU		5153	TU
-ER	-KAT(E)	N	5213	KATE
-ING (NOMINAL)	-N(A)		5126	NA
-LIKE (SENS VB COMP)	-NI(I)	A	5165	NII

LIST OF FEATURE MATRICES

LIST OF FEATURE MATRICES

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*V, -MOT, /-IPA?(A), /31/122/,                                             0104
*V, +MOT, /-IPA?A-TU(A), SEE 0104,0150,                                    0105
*V, -MOT, /-VA?A/-PA?AN(A)/-MPA?AN(A), /30/198/, SEE 0102,                 0106
*V, +MOT, /198/258/, SEE 0106,0150,                                        0107
*V, -MOT, /57/32/198/162/, SEE 1256,0109,                                  0108
*V, +MOT, /1096/, SEE 0108,0150,                                           0109
*V, -MOT, /33/124/,                                                        0110
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-V, +VMOT, /-IPA?A--, /36/53/, SEE 0104,0120,                              0125
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-V, /1031/,                                                                0162
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-ANIM,                                                                     0211
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                                                                         0256
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                                                                         0505
                                                                         0506

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+N,                                                                      0602
                                                                         0604

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+TRAN, /TA-!SUMEA, V=PAST,    /101/1103/,    SEE 1124,1129,                 1132
                                                                            51132
*TRAN, NGU=IMP, *OBJ-PREF, C=HAB, J=PRES, V=PAST, 1152=+RESULT,             1151
                                                                            71151
+TRAN, O/NGU=IMP, +RESULT, 1151=-RESULT, V/M=PAST, NGU=MOM, O/J=PRES,       1152
*TRAN, V=PAST, 1156=+RESULT,                                                1155
+TRAN, +RESULT, 1155=-RESULT,                                               1156
*TRAN, V=PAST, 1160=+RESULT, *CONT,        /156/1054/,                      1159
 TRAN, +RESULT, 1159=-RESULT,  /1054/,                                      1160
+TRAN, O/NGU=IMP, V=PAST,     /1090/, SEE 1172,                             1163
+TRAN, V=PAST, *CONT, 1166=MOM,                  /95/156/,                  1165
+TRAN, V=PAST, O=IMP, 1165=DUR, /95/156/,                                   1166
 TRAN,                          /1167/,                                    1168
-TRAN, C=HAB,                /1067/1101,                                    1171
-TRAN, V=PAST, *A-PREF, /1028/1090/1101/,  SEE 1163,                         1172
+TRAN, +S,                                                                  1201
+TRAN, V=PAST,          /DIII/DIV/,                                         1202
+TRAN, V/M=PAST, GA=GER, 2=OBJ, *OBJ-PREF,            SEE 1110,             1203
+TRAN, +S, 2=OBJ, R=HAB,                                                    1204
-TRAN, M=PAST,                                                              1251
-TRAN, V=PAST,                 /DIV/1004/,                                  1252
-TRAN,                                                                      1253
+TRAN, C=HAB, NGU=IMP, *OBJ-PREF,                                           1254
+TRAN,                                                                      1255
+TRAN, +OBJ-PREF,                                                           1256
-TRAN,                                                                      1257
-TRAN,                                                                      1258
-TRAN, NGU=IMP,                                                             1259
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-TRAN, M=PAST,                                                          1260
-TRAN,                                                                  1261
+TRAN, NGU=IMP, /90/1090/, SEE 1254,                                    1262
-TRAN,                          1260=SG,                                1263
-TRAN, M=PAST,                                                          1265
-TRAN,                                                                  1266
-TRAN,                  SEE 1265,                                       1267
-TRAN, R=HAB, V/M=PAST, NGU=IMP,                                        1268
                                                                       81268
                                                                       91268
-TRAN, *V-PREF, *CONT, +MOT,                                            1269
                                                                       81269
                                                                       91269
-TRAN, R=HAB, NGU=IMP, 1281=MOM, V=PAST, -MOM,                          1273
-TRAN, 1282=MOM, -MOM,       /33/197/,                                  1274
-TRAN, C=HAB, NGU=IMP, 1283=MOM, -MOM,                                  1275
-TRAN, 1284=MOM, -MOM,                                                  1276
-TRAN, R=HAB, NGU=IMP, *V-PREF, 1279=MOM, -MOM,                         1277
-TRAN, NGU=IMP, 1280=MOM, -MOM,                                         1278
-TRAN, R=HAB, 0=IMP, 1277=DUR,  +MOM,                                   1279
-TRAN, 1278=DUR, +MOM, V=PAST,                                          1280
-TRAN, 1273=DUR, +MOM,                                                  1281
-TRAN, 1274=DUR, +MOM,                                                  1282
-TRAN, 1275=DUR, +MOM,                                                  1283
-TRAN, 1276=DUR, +MOM,                                                  1284
+TRAN, +DAT-PREF, 2-OBJ, NGU=IMP, M=PAST, (DAT: N-A)(OBJ: N-A), SEE 0150, 1291
+TRAN, *OBJ-PREF, 2-OBJ, R=HAB, V/M=PAST, NGU=IMP,                      1292
+TRAN, 0/NGU=IMP,                                                       1293
+TRAN,                                                                  1294
+TRAN,                                                                  1295
 TRAN, 0/NGU=IMP,        /255/,        SEE 1295,1464,                   1296
+TRAN, *OBJ-PREF, NGU=IMP, 2-OBJ, GA=GER, V=PAST,   /236/80/102/273/,    1301
+TRAN, NGU=IMP, -0=IMP, J=PRES,                                         1302
-TRAN, -IMP,                                                            1303
+TRAN, 0=IMP, -NGU=IMP, -OBJ-PREF,                      /116/237/,      1304
-TRAN, -IMP, V=PAST, J=PRES,          /287/,                            1305
-TRAN, V=PAST, -IMP, -M=PAST,                        /134/,              1306
-TRAN, 0/NGU=IMP, 0/V=PAST, -M=PAST, -J=PRES,      (SUBJ=STICK/BONE),   1307
-TRAN, -IMP, 0/V=PAST,            /1004/,          SEE 1309,             1308
-TRAN, -IMP,          /1004/,      SEE 1308,                            1309
-TRAN, R=HAB, 0/NGU=IMP, J=PRES,  /138/, SEE 2821, (MOM=TAKE BREATH)     1310
-TRAN, M/V=PAST, NGU=IMP, -0=IMP,        SEE 1361,2072,   /1044/,       1311
-TRAN, NGU=IMP,                 (SUBJ=FIRE),                            1312
+TRAN, M=PAST, 0/NGU=IMP,                                               1313
+TRAN, NGU=IMP,   /194/294/,        SEE 1315, -0=IMP,                   1314
-TRAN,                                                                 61314
-TRAN, NGU=IMP,                  /194/294/,  SEE 1314,2125,             1315
+TRAN, NGU=IMP, V/M=PAST, /101/, -0=IMP, GA=GER,                        1316
+TRAN, C=HAB, 0/NGU=IMP, V=PAST, -M=PAST,      SEE 1254,1380,           1317
+TRAN, R=HAB, NGU=IMP, V=PAST,             SEE 1255,                    1318
+TRAN, R=HAB, J=PRES,                  /1083/,                          1319
+TRAN, NGU=IMP,                                                        81319
+TRAN, 0=PRES, -J=PRES, 0/NGU=IMP, V=PAST,                             91319
+TRAN, NGU=IMP, V/M=PAST, -0=IMP,                                       1320
-TRAN,                            SEE 1441,2070,                        1321
+TRAN,                                SEE 9006,1400,                   1322
+TRAN, NGU=IMP, V/M=PAST, -0=IMP,                                       1323
-TRAN,                          /249/1030/,                            1324
-TRAN,                            /249/1030/,                          1325
+TRAN, V/M=PAST, NGU=IMP, -0=IMP, GA=GER,                               1326
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+TRAN, NGU=IMP, V/M=PAST,                                                1327
-TRAN, NGU=IMP (TO A FRUIT),                                             1328
+TRAN, NGU=IMP, -O=IMP, V=PAST,                                          1329
+TRAN, V/M=PAST, NGU=IMP, -O=IMP, GA=GER,            /61/,               1330
-TRAN, O=IMP, V=PAST, -NGU=IMP,    /85/, C=GER, /1174/,                  1331
-TRAN, R=HAB, NGU=IMP, V/M=PAST, /139/, SEE 1333, -O=IMP,                 1332
-TRAN, ARCHAIC,              SEE 1332,2070,                              1333
-TRAN, R=HAB, NGU=IMP, M/V=PAST, 1482=MOM,            /19/147/,           1334
+TRAN, O/NGU=IMP, V/M=PAST, J=PRES,                                       1335
 TRAN,                                /53/,                               1336
 TRAN, V=PAST, O/J=PRES,     /257/,                                      1337
 TRAN,                                                                   1338
 TRAN, GA=GER,                                                           1339
 TRAN, V=PAST,                                                           1340
+TRAN,                        /116/, SEE 1057,2823,                      1342
-TRAN, O/NGU=IMP, V=PAST,                                  SEE 1273,      1344
+TRAN, V=PAST,          /1027/, SEE 9001,1400,                           1345
-TRAN, V=PAST, O=PRES,                                  SEE 1046,        1346
+TRAN, O/NGU=IMP, V/M=PAST, J=PRES, SEE 1348,                /1030/,     1347
-TRAN, V=PAST,            /1030/, SEE 1347,2617,                         1348
+TRAN, J=PRES, V=PAST,                SEE 1460,                          1349
+TRAN, NGU=IMP, V=PAST,                                                  1350
-TRAN, +MOM, C=GER, 91351=DUR,                /267/,                     1351
-TRAN, J=PRES, -MOM, 1351=MOM, /267/,                                    91351
-TRAN, +MOM, V=PAST, 91352=DUR,                                          1352
-TRAN, -MOM, J=PRES, 1352=MOM,                                           91352
-TRAN,                                   SEE 2617,1346,                 1353
-TRAN,                                 SEE 1359,                        1354
+TRAN, R=HAB, V/M=PAST, NGU=IMP, *OBJ-PREF, -C=GER, J=PRES, NGU=IMP,     1355
+TRAN, V/M=PAST, O/NGU=IMP, GA=GER,                                      1356
 TRAN, *OBJ-PREF,                                                        1357
 TRAN,                                                                   1358
-TRAN, V=PAST,                      SEE 1354,                            1359
 TRAN, V=PAST,                        SEE 1260,                          1360
*TRAN, *OBJ-PREF, V=PAST, GA=GER, -M=PAST,                               1361
 TRAN, V=PAST,        SEE 2545,                                          1362
-TRAN,                                                                   1363
+TRAN, O=PRES, /105/, V=PAST,                                            1364
+TRAN,     *V-PREF,  =HAB, M=PAST, NGU=IMP,  /'SUA,                      1365
-TRAN, C=HAB, J=PRES, V=PAST,   SEE 2208,1433,                           1366
-TRAN,                /1058/,          SEE 2617,      (WATER)            1367
-TRAN, V/M=PAST, GA=GER,                                                 1368
+TRAN, +ANIM-SUBJ, V/M=PAST, GA=GER, NGU=IMP,                            1369
-TRAN, V=PAST, GA=GER,                    SEE 1430,                      1370
+TRAN, J=PRES,                        /56/,                              1371
-TRAN, V=PAST,                           SEE 1371, (SUBJ=PL),           1372
-TRAN, V/M=PAST, NGU=IMP, SEE 1381,                                      1373
+TRAN, M=PAST,                                                           1374
+TRAN, *S, *V-PREF, V=PAST, J=PRES,       /103/1113/164/,                1375
-TRAN, J=PRES, V=PAST, SEE 0331,                                         1376
+TRAN, J=PRES, V=PAST, SEE 0331,1421,                                    1377
+TRAN, O=IMP,                                                            1378
+TRAN, C=HAB, O=IMP, V=PAST,                                             1379
+TRAN, V=PAST, *OBJ-PREF,                      SEE 1317,  /104/,         1380
+TRAN, V/M=PAST,            /1114/,              SEE 1373,               1381
+TRAN, *OBJ-PREF, V=PAST, J=PRES,              /106/238/,                1382
+TRAN,                                                                   1383
-TRAN,                                                                   1384
-TRAN,                                                                   1385
+TRAN,                                                                   1386
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+TRAN, R=HAB, M=PAST, NGU=MOM,                                          1387
+TRAN,                                                                  1388
                                                                       21388
 TRAN, J=PRES, V=PAST, NGU=IMP, +HUM=SUBJ, /1114/,                      1389
+TRAN, GA=GER, NGU=IMP,                                                91389
+TRAN,                                                                  1390
-TRAN,                                                                  1391
+TRAN, NGU=IMP, M/V=PAST, GA=GER,                                       1392
 TRAN,                              SEE 2617,                           1393
+TRAN,                                                                  1394
 TRAN,                      SEE 1204,                                   1395
-TRAN,                                                                  1396
+TRAN,                                                                  1397
+TRAN, 2=OBJ,                        /1058/,                            1398
+TRAN, *V=PREF, 2=OBJ, V=PAST,                                          1400
-TRAN,                                 SEE 2637,1002,                   1401
-TRAN, M=PAST,                                                          1405
+TRAN, V=PAST,                /DIV/,                                    1406
-TRAN, V=PAST, J=PRES, GA=GER, /1033/, SEE 1418,                        1407
 TRAN, V=PAST, /DIV/, SEE 2070,                                         1408
*TRAN, O=IMP, V=PAST, /153/,                                            1409
+TRAN, 2=OBJ, M=PAST,                          SEE 1292,1085,           1410
                                                                       91410
+TRAN, NGU=IMP, /1024/, V=PAST, SEE 2054,                               1411
 TRAN, *OBJ=PREF, /180/, SEE 2070,                                      1412
 TRAN,                                                                  1413
+TRAN,                                                                  1414
 TRAN,                                                                  1415
 TRAN, V=PAST,                                                          1416
*TRAN, V/M=PAST, +MOT, NGU=MOM, NGU=IMP, /DIV/,                         1417
+TRAN, V=PAST, 2=OBJ, /1033/, SEE 1407,                                 1418
+TRAN, V/M=PAST,                                                        1421
+TRAN,                                                                  1422
-TRAN,                                                                  1425
 TRAN, V=PAST,                                                          1427
-TRAN,                                                                  1428
-TRAN, M=PAST,                                                          1429
-TRAN, C=HAB, NGU=IMP, V=PAST, +MOT,                                    1430
-TRAN, C=HAB, O=IMP, O=PRES, V=PAST, +MOT,      /36/,                   1431
-TRAN, O=IMP,                                                           1432
-TRAN, V/M=PAST, +MOT, /1095/, SEE 1366,                                1433
-TRAN, V=PAST, +MOT, /1095/,                                            1434
+TRAN,                              SEE 1317,                           1435
 TRAN, R=HAB,                                                           1436
 TRAN,                                                                  1437
+TRAN, V=PAST,                                                          1438
                                                                       11438
+TRAN, V=PAST,                  SEE 1261,                               1439
*TRAN, NGU=IMP, V=PAST,                                                 1440
+TRAN, M=PAST, /1065/,            SEE 1321,                             1441
-TRAN, C=HAB, V=PAST, NGU=IMP,                                          1445
-TRAN, NGU=IMP,                                                         1446
-TRAN, V=PAST, NGU=IMP,                      /DV/,                      1447
                                                                       51447
                                                                       61447
+TRAN, V=PAST, NGU=IMP,                  /DV/,                          1448
-TRAN, V=PAST, J=PRES,                 /1101/,                          1449
+TRAN, R=HAB, V/M=PAST, *OBJ=PREF, O/NGU=IMP, /DV/,                     1450
*TRAN, M=PAST,                    /1096/1105/,                          1451
-TRAN, O=IMP, M=PAST,               /DV/,                               1452
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+TRAN, C=HAB, *OBJ-PREF, O/NGU=IMP,          /DV/,                    1453
 TRAN, NGU=IMP,               /DV/,                                   1454
                                                                     51454
+TRAN, O=IMP,            /DV/169/,                                   1455
-TRAN, O=IMP,                                                         1456
-TRAN, R=HAB, V=PAST, NGU=IMP,                                        1457
+TRAN, +OBJ-PREF, O/NGU=IMP,                                          1458
+TRAN, *OBJ-PREF, NGU=IMP,      /237/,                                1459
-TRAN, NGU=IMP,                 SEE 1349,1466,                        1460
-TRAN, -IMP,                                                          1461
+TRAN, O=IMP,                                                         1462
-TRAN, NGU=IMP, V=PAST, GA=GER,                                       1463
                                                                     81463
+TRAN, O=IMP, M/V=PAST, GA=GER,                                       1464
-TRAN,                                                                1465
+TRAN, -OBJ-PREF, V=PAST, /1079/, SEE 1349,1460,                      1466
 TRAN, GA=GER, V=PAST, -MOM,       /1160/JPH/,                        1469
-TRAN,                                                                1470
+TRAN, +OBJ-PREF, O=IMP,                /237/,                        1471
+TRAN,                                                                1472
+TRAN,                                SEE 1000,1002,                  1473
-TRAN, O/NGU=IMP,                                                     1474
                                                                     31474
-TRAN, NGU=IMP,                                                       1475
-TRAN, O=IMP, V=PAST,                                                 1476
+TRAN, O=IMP,                    SEE 1476,2070,                       1477
+TRAN, V/M=PAST, NGU=IMP,                                             1478
+TRAN, NGU=IMP,                                                       1479
-TRAN, NGU=IMP, V=PAST,                                               1480
*TRAN, NGU=IMP, V=PAST, /DIV/DV/,                                     1481
                                                                     71481
-TRAN, O=IMP, 1334=DUR,                                               1482
-TRAN, M=PAST,                                                        1483
 TRAN,                                                                1484
-TRAN,                                                                1485
 TRAN, M/V=PAST, NGU=IMP, GA=GER,                                     1486
 TRAN, GA=GER,        /1052/,                                         1487
-TRAN,                                                                1488
 TRAN,                                                                1489
 TRAN,                                                                1490
+TRAN, NGU=IMP,                                                       1491
+TRAN,           /283/,                                               1492
+TRAN, GA=GER, /WE-'SIVA, V=PAST,            SEE 1481,                1493
+TRAN, V/M=PAST, NGU=IMP, GA=GER, +MOT,                               1495
+TRAN, -MOT, GA=GER, V=PAST,         /1061/,                          1496
+TRAN,                      /1080/,                                   1499
+TRAN, GA=GER, V/M=PAST,        /1061/,                               1501
+TRAN, V/M=PAST, /1065/,  SEE 1441,1321,                              1502
 TRAN, +MOT, V=PAST, O/NGU=IMP, GA=GER,                               1503
+TRAN, V/M=PAST, O/NGU=IMP,  /1062/,                                  1504
                                                                     81504
+TRAN, V/M=PAST, NGU=IMP, GA=GER, /1062/,                             1505
+TRAN, V=PAST,          /1062/,                                       1506
                                                                     81506
-TRAN, J=PRES, V/M=PAST, GA=GER, /1080/,                              1507
+TRAN, J=PRES, /1062/,                                                1508
+TRAN, V=PAST,                  /1063/,   SEE 2112,                  1509
-TRAN, R=HAB,              /1064/,        SEE 1355,2634,             1510
-TRAN, GA=GER, '/-RU,  /SP15/,  SEE 2599,                             1511
-TRAN, O=IMP,           /159/,                                        1512
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*TRAN,                                  /SP14/,                                  1513
*TRAN, M=PAST,                           /64/,          SEE 2597,                1514
*TRAN, V=PAST,       /SP164/, SEE 1312,                                          1515
 TRAN, M/V=PAST, GA=GER,  /SP258/,                                               1516
 TRAN, J=PRES,                          /1134/,                                  1517
 TRAN, <ENG,                        /1134/JPH/,                                  1518
+TRAN, NGU=IMP,                             /PM/1128/,                            1519
*TRAN, NGU=IMP,          /1142/1143/,                                            1520
*TRAN, C=HAB, /NA!GEI,                      /JPH/,                               1521
 TRAN, GA=GER, /1137/,                       (FROM HAND),                        1522
*TRAN, J=PRES, NT=HAB,                 /1143/,                                   1523
              +A=PREF,                 /1159/,                                   1524
*TRAN,                                                                           1525
 TRAN, GA=GER,                                                                   1526
 TRAN, V=PAST, /1138/,                                                           1527
 TRAN,                      /1155/,                                              1528
 TRAN, M=PAST,                     /1155/,                                       1529
 TRAN,                            /1159/,                                        1530
 TRAN, GA=GER, NGU=IMP, /JPH/,                                                   1532
 TRAN,                /1148/SP236/,                                              1534
 TRAN, GA=GER, *MOM, 1536=MOM,                          /1154/,                  1535
 TRAN, C=GER, +MOM, 1535=DUR,                         /1154/,                    1536
 TRAN, GA=GER, J=PRES,                              SEE 2633,                    1538
 TRAN, V=PAST, /1138/,                                                           1539
 TRAN, GA=GER, V/M=PAST, /1138/,                                                 1540
*TRAN, MU!=PL, NT=HAB, /1143/,                                                   1542
*TRAN, J=GER,                                                                    1543
*TRAN, C=GER, 1472=+TRAN, /1154/,                                                1545
*TRAN, J=GER,                      /JPH/,                                        1546
 TRAN, GA=GER, V=PAST,             /1166/,                                       1551
 TRAN,                     /1166/,                                               1552
*TRAN, V=PAST,               /1173/,                                             1553
 TRAN, V=PAST, /1175/,                                                           1554
+TRAN, GA=GER, M=PAST, /1118/,                      SEE 2584,                    1555
 TRAN,                          SEE 1425,                                       1556
 TRAN, GA=GER, /1167/,                                                           1558


*TRAN, +V=PREF, V=PAST, J=PRES, /75/150/1028/,                                   1901
*TRAN, +OBJ=PREF, +V=PREF, /=RU?A/=CU?A, M=PAST, GA=GER, V=PAST,                 1902
*TRAN, J=PRES, V=PAST,                                                           1903
*TRAN, +V=PREF, 0=IMP,  /27/, V=PAST,                                            1904
 TRAN, V=PAST, +V=PREF,                  /27/103/135/,        SEE 1400,          1905
*TRAN, V=PAST, +V=PREF,                                SEE 1292,                 1906
*TRAN, +V=PREF, GA=GER, NGU=MOM,                                                 1907
*TRAN, +V=PREF, 0/J=PRES, V=PAST,          /104/,                                1908
*TRAN, +V=PREF,                                                                  1910
*TRAN, +V=PREF,                                                                  1911
*TRAN, +V=PREF,                                                                  1912
*TRAN, +V=PREF,  NGU=IMP, /75/,                        SEE 0172,                 1913
*TRAN, +V=PREF,                                                                  1914
*TRAN, +V=PREF, /=MPORO, *MOT,                                                   1915
*TRAN, +V=PREF,  /1053/,                                                         1916
*TRAN, +V=PREF, GA=GER, J=PRES, /1160/JPH/,                                      1917
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+ANIM, I=PERS, +SG, 'NEENI=OBLIQUE STEM, +PRO, *PREFIX, =OB,                2001
+ANIM, I=PERS, +SG, +OB, +PRO, *PREFIX,                                    92001
+ANIM, I=PERS, =SG, =SEV, +INCL, +PRO, *PREFIX,                             2002
+ANIM, I=PERS, =SG, +SEV, +INCL, +PRO, *PREFIX,                             2003
+ANIM, I=PERS, =SG, =INCL, +PRO, *PREFIX,                                   2004
+ANIM, II=PERS, +SG, +PRO, *PREFIX,                                         2005
+ANIM, II=PERS, =SG, +PRO, *PREFIX,                                         2006
+ANIM, III=PERS, +SG, H=PROX, +PRO, *PREFIX,                                2007
+ANIM, III=PERS, +SG, V=PROX, +PRO, *PREFIX,                                2008
+ANIM, III=PERS, +SG, I=PROX, +PRO, *PREFIX,                                2009
+ANIM, III=PERS, =SG, H=PROX, +PRO, *PREFIX,                                2010
+ANIM, III=PERS, =SG, V=PROX, +PRO, *PREFIX,                                2011
+ANIM, III=PERS, =SG, I=PROX, +PRO, *PREFIX,                                2012
=ANIM, III=PERS, H=PROX, +PRO, =PREFIX, I='KA=OBLIQUE STEM, =OB,           2013
=ANIM, III=PERS, H=PROX, +PRO, +PREFIX, *OB,                              82013
=ANIM, III=PERS, H=PROX, +PRO, =PREFIX, +OB,                              92013
=ANIM, III=PERS, V=PROX, +PRO, =PREFIX, MA='KA=OBLIQUE STEM, =OB,          2014
=ANIM, III=PERS, V=PROX, +PRO, +PREFIX, *OB,                              82014

=ANIM, III=PERS, V=PROX, +PRO, =PREFIX, +OB,                              92014
=ANIM, III=PERS, I=PROX, +PRO, =PREFIX, U='KA=OBLIQUE STEM, =OB,           2015
=ANIM, III=PERS, I=PROX, +PRO, +PREFIX, *OB,                              82015
=ANIM, III=PERS, I=PROX, +PRO, =PREFIX, +OB,                              92015


 ANIM, +PRO, +PREFIX, +REFLEX,                                             2016
 ANIM, +REFLEX, III=PERS,                                                  2017

 ANIM,                                                                     2018
+ANIM,                        SEE 2002,0190,                              2019

=ANIM, *CONCRETE, +PRO,                                  /114/,           2020
+ANIM, +HUMAN, +PRO,                          /114/,                      2021
=ANIM, *CONCRETE,                     /114/1052/, SEE 2020,               2022
+ANIM, HA'NGA=JA=SAP(A)=ACC,            /114/1052/, +HUMAN, SEE 2021,     2023
+ANIM, *HUMAN, +PRO,      /176/114/1076/,                                 2024

+ANIM, +PRO, +BND, +PREFIX, /1070/1072/,                                   2025
=ANIM,                          /114/,                                    2028



+ANIM, MO'=PL,                                          INHER POSSESSED   2030
+ANIM, PI'=(VI)=PL, W=PL,                               INHER POSSESSED   2031
+ANIM, PI'=(VI)=PL, W=PL, =HUMAN,                                         92031
+ANIM, TU'=PL, M=PL,                                    INHER POSSESSED   2032
+ANIM,                                                  INHER POSSESSED   2033
+ANIM, PA'=PL, M=PL,                                    INHER POSSESSED   2034
+ANIM, PA'=PL, W=PL,                                    INHER POSSESSED   2035
+ANIM,                                                  INHER POSSESSED   2036
+ANIM,                                                  INHER POSSESSED   2037
+ANIM, KU'=NKU=PL, W=PL,                                INHER POSSESSED   2038
+ANIM, KU'=NKU=PL, W=PL, =HUMAN,                                          92038
+ANIM,                                                  INHER POSSESSED   2039
+ANIM,                  /1138/,                         INHER POSSESSED   2040
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+ANIM,                          /1138/,                          INHER POSSESSED  2041
+ANIM,                        /1138/,                            INHER POSSESSED  2042
+ANIM,             /1138/,                                       INHER POSSESSED  2043


-ANIM,                                                           INHER POSSESSED  2051
-ANIM, A!-=PL,                                                   INHER POSSESSED  2052
-ANIM, HO!-=PL,                                                  INHER POSSESSED  2053
-ANIM, +N-ABS, A!-=PL,            /1023/1045/, SEE 1411,         INHER POSSESSED  2054
-ANIM, +N-POSS, A!-=PL,                                          INHER POSSESSED 72054
-ANIM,                                                           INHER POSSESSED  2055
-ANIM, +N-ABS, NE!-=PL,                                          INHER POSSESSED  2056
-ANIM, O=PL, +N-ABS,                                             INHER POSSESSED  2057
-ANIM, CO!-=PL,                                                  INHER POSSESSED  2058
-ANIM, PI!-=PL,                                                  INHER POSSESSED  2059
-ANIM, KWI!-=PL,                  /DIV/, SEE 2051,               INHER POSSESSED  2060
-ANIM, NA!-=PL,                                                  INHER POSSESSED  2061
-ANIM, PU!-=PL, +N-ABS,                                          INHER POSSESSED  2062
-ANIM, MA!-=PL,                                                  INHER POSSESSED  2063
-ANIM, MA!-=PL,                                                  INHER POSSESSED  2064
-ANIM, NA!-=PL,                                                  INHER POSSESSED  2065
-ANIM, +BND, +PREFIX,                                            INHER POSSESSED  2066
-ANIM, SEE 0115,                                                 INHER POSSESSED  2067
-ANIM, +N-ABS,                    /235/,                         INHER POSSESSED  2068
-ANIM, MO!-=PL,                                                  INHER POSSESSED  2069
-ANIM, +BND, +PREFIX,                                            INHER POSSESSED  2070
-ANIM, TO!-=PL, W=PL,                     /235/,                 INHER POSSESSED  2071
-ANIM, +BND, +PREFIX,                                            INHER POSSESSED  2072
-ANIM, +N-ABS,                     SEE 2074,                     INHER POSSESSED  2073
-ANIM, +N-POSS,                                                  INHER POSSESSED 82073
-ANIM, +N-ABS,                            SEE 2073,              INHER POSSESSED  2074
-ANIM,                                                           INHER POSSESSED  2075
-ANIM, JU!-=PL,                                                  INHER POSSESSED  2076
-ANIM,                                                           INHER POSSESSED  2077
-ANIM,                                                           INHER POSSESSED  2078
-ANIM, MA!-=PL,                                                  INHER POSSESSED  2079
-ANIM, TA!-=W=PL                                                 INHER POSSESSED  2080
-ANIM,                                                           INHER POSSESSED  2081
-ANIM, +N-ABS,                   /1055/,                         INHER POSSESSED  2082
-ANIM, +N-POSS,                        /1055/,                   INHER POSSESSED 82082
-ANIM,                                                           INHER POSSESSED  2083
-ANIM,                                                           INHER POSSESSED  2084
-ANIM, +N-ABS,                                                   INHER POSSESSED  2085
-ANIM, A!-=PL,                                                   INHER POSSESSED  2086
-ANIM, +N-ABS,                  /1056/,                          INHER POSSESSED  2087
-ANIM, KU!-=PL,                                                  INHER POSSESSED  2088
-ANIM, +N-ABS,                                                   INHER POSSESSED  2089
-ANIM, +N-ABS, JA/NA=OB, TA!-RA=PL,                   /1159/,     INHER POSSESSED  2090
-ANIM,                        /1100/,                            INHER POSSESSED  2091
-ANIM,                         /1139/,                           INHER POSSESSED  2092
-ANIM,                                /1139/,                    INHER POSSESSED  2093
-ANIM,                                /1139/,                    INHER POSSESSED 62093


+ANIM, W=PL,                                          UNPOSSESSABLE,        2101
+ANIM, W=PL, A!-=SEV,                                 UNPOSSESSABLE,        2102
+ANIM, W=PL, SEE 1054,2056,                                                 2103
+ANIM, W=PL, PI!-=SEV, +N-ABS,                                              2104
+ANIM, PU!-VUAGA(NTE)M=PL,                                                  2105
+ANIM, HA!-=PL, W=PL,                                                       2106
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+ANIM, -RAWAM=PL, SEE 2114,2545,                                        2107
 ANIM, M=PL,                                                            2108
+ANIM, !NAA--W=PL,                                                      2109
+ANIM, NA!-=PL,                                                         2110
+ANIM, W=PL, HI!-=PL,                                                   2111
+ANIM, W=PL,                                                            2112
+ANIM, KWI!-GWIIGA(NTE)M=PL,                                            2113
+ANIM, TA!WA-M=PL,                                                      2114
+ANIM, W=PL,                                                            2115
+ANIM, M=PL,                                                            2116
+ANIM, W=PL,              SEE 0551,2103,                                2117
+ANIM, W=PL,                                                            2118
+ANIM,                                                                  2119
+ANIM, W=PL,                                                            2120
+ANIM, MA!--V=PL,                                                       2121
+ANIM, E!--V=PL,                                                        2122
+ANIM, NA!-=PL,                                                         2123
+ANIM, W=PL,                                                            2124
+ANIM, +BND, +PREFIX,                                                   2125
+ANIM, NE!-NKWETUIKA(TE)M=PL,                                           2126
+ANIM, TO!-=PL, SEE 1027,                                               2127
+ANIM, MI!-=PL, SEE 1028,                                               2128
+ANIM, -KA(TE(M=PL,                                                     2129
+ANIM, E!-EJENKAM=PL,           SEE 1453,                               2130
+ANIM, M=PL,                                                            2131
+ANIM, A!--W=PL, !AIVAW=PL,                                             2132
+ANIM, NA--W=PL,                                                        2133
+ANIM, W=PL,              SEE 1087,                                     2134
+ANIM, (PEOPLE THAT TALK FOR YOU), /1112/,                               2135
+ANIM, W=PL,                                                            2136
+ANIM, W=PL,                  /1130/,                                   2142
+ANIM, KE!-GE--W=PL,          /93/,              SEE 0551,              2143
+ANIM, NE!--M=PL,                 /38/,          SEE 1292,              2144
+ANIM,                              /1153/,                             2145
+ANIM,                          /1138/,                                 2146
+ANIM,                     /96/,                                        2148


+ANIM, M=PL, +N-ABS,                  (TINY RED STINGING),              2201
+ANIM, M=PL, +N-ABS,                                                    2202
+ANIM,                                                                  2203
+ANIM, W=PL,                                                            2204
+ANIM, W=PL, +N-ABS,                                                    2205
+ANIM, W=PL,                                                            2206
+ANIM, M=PL, +N-ABS,                                                    2207
+ANIM, W=PL, +N-ABS,                                                    2208
+ANIM, W=PL,                                                            2209
+ANIM, W=PL,                                                            2210
+ANIM, W=PL, +N-ABS,                                                    2211
+ANIM, W=PL, <SPAN,                                                     2212
+ANIM, W=PL, <END,                                                      2213
+ANIM, W=PL,          SEE 2235,                                         2214
+ANIM, W=PL,                                                            2215
+ANIM, M=PL, +N-ABS,                                                    2216
+ANIM, W=PL,                                                            2217
+ANIM, W=PL,                                                            2218
+ANIM, W=PL,                                                            2219
+ANIM, M=PL, +N-ABS, /SENAWAVI,                                         2220
+ANIM, W=PL,                                                            2221
+ANIM, W=PL, +N-ABS,                                                    2222
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+ANIM, -CI-W=PL,                                                        2223
+ANIM, W=PL,                                                            2224
+ANIM, -STRESS-RULE, W=PL, <ENG,                                        2225
+ANIM, V=PL, +N-ABS,                                                    2226
+ANIM, M=PL, +N-ABS,                                                    2227
+ANIM, +N-ABS,                                                          2228
+ANIM, W=PL, +N-ABS,          /1034/1080/,                              2229
+ANIM, W=PL, +N-ABS,                                                    2230
+ANIM,                                                                 92230
+ANIM, M=PL,                                                            2231
+ANIM, W=PL,                                                            2232
+ANIM, W=PL,              /1138/,                                       2233
+ANIM, W=PL, +N-ABS,                                                    2234
+ANIM, W=PL,                                                            2235
+ANIM, W=PL,                                                            2236
+ANIM, W=PL, +N-ABS,                                                    2237
+ANIM, W=PL, <SPAN,                                                     2238
+ANIM, W=PL, MU1-=SEV, +N-ABS(-ABS),                                    2239
+ANIM, W=PL,               SEE 2222,              POSSESSED,            2240
+ANIM, W=PL,                                                            2241
+ANIM, W=PL,                                                            2242
+ANIM, W=PL, <SPAN,                                                     2243
+ANIM,                                                                  2244
+ANIM,                                                                  2245
+ANIM,                              SEE 2236,2222,                      2246
+ANIM,                                                                  2247
+ANIM, W=PL,                                                            2248
+ANIM, W=PL,             SEE 2248,2617,                                 2249
+ANIM, W=PL,                                                            2250
+ANIM,                           /1129/,                                2251
+ANIM,                                                                  2252
+ANIM,                                                                  2253
+ANIM, W=PL,                                                            2254
+ANIM, +N-ABS,                                                          2255
+ANIM,                           /1129/,                                2256
+ANIM, +N-ABS,                                                          2257
+ANIM, M=PL, +N-ABS,    /69/,          SEE 2201,                       2258
+ANIM, W=PL,                   /1126/,                                 2259
+ANIM, W=PL,                /A5/,                                      2260
+ANIM, W=PL, /1140/,                                                    2261
+ANIM, W=PL, /1138/,                                                    2262
+ANIM, W=PL, /1138/,                                                    2263


-ANIM,                    <ENG,                                        2401
-ANIM, +N-ABS,              /247/,       SEE 1006,                     2402
-ANIM,                                                                 2403
-ANIM, O=PL,                                                           2404
-ANIM,                                                                 2405
-ANIM,                                                                 2406
-ANIM, O=PL, +N-ABS,        /242/1041/,                                2407
-ANIM, <ENG,                                                           2408
-ANIM,                                                                 2409
-ANIM, +N-ABS,                                                         2410
-ANIM,                   /199/, SEE 2423,                              2411
-ANIM, +N-ABS,                                                         2412
-ANIM,                    SEE 2404,                                    2413
-ANIM, -PO-PORCMP-PL,                                                  2414
-ANIM, <SPAN,                                                          2415
-ANIM, =ENG,                                                           2416
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*ANIM,                                                                  2417
*ANIM,                                                                  2418
*ANIM, +N*ABS,                        SEE 1357,  (CULTIVATED),          2419
*ANIM, +N*ABS,       /1096/1113/,                                       2420
*ANIM,                                                                  2421
*ANIM, +N*ABS,            /1045/,                                       2422
*ANIM,               SEE 2411,                                          2423
*ANIM, NA!*=PL, +N*ABS,          SEE 2061,                              2424
*ANIM, <ENG,                                                            2425
*ANIM, <SPAN,                              /1129/,                      2426
*ANIM, <MOJAVE,                                                         2427
*ANIM,                      /1166/,                                     2428
*ANIM,                    /1166/,                                       2429
*ANIM,                      /1139/,                                     2430


*ANIM, 0=PL,                                                            2501
*ANIM, <ENG,                                                            2502
*ANIM, +N*ABS,                SEE 1480,2504,                            2503
*ANIM,               /1016/, SEE 1480,2503,                UNPOSSESSABLE, 2504
*ANIM,                                                                  2505
*ANIM, SEE 1275,                                                        2506
*ANIM,                                                                  2507
*ANIM, MU!*=PL,                                                         2508
*ANIM, MU!*=PL,                                                        92508
*ANIM, <ENG,                                                            2509
*ANIM, *PA*PAGAP=PL,                SEE 2582,2600,                      2510
*ANIM,                                                                  2511
*ANIM, <SPAN,                                                           2512
*ANIM, 0=PL  +N*ABS, /1074/,                                            2513
*ANIM,                 SEE 2603,2556,                                   2514
*ANIM,             SEE 2617,1318,                                       2515
*ANIM,                                                                  2516
*ANIM, =ENG,                                                            2517
*ANIM,               SEE 2563,                                          2518
*ANIM,                                                                  2519
*ANIM,                                                                  2520
*ANIM, *PREFIX,                                                         2521
*ANIM, *PREFIX,                                                         2522
*ANIM, =ENG,                                                            2523
*ANIM, <ENG,                                                            2524
*ANIM,                   SEE 1277,                                      2525
*ANIM, +N*ABS, *PREFIX, POSSESSABLE,                                    2526
*ANIM, SEE 2402,2563,                                                   2527
*ANIM,                                                                  2528
*ANIM, *STRESS RULE, <MOJAVE,                                           2529
*ANIM,                                                                  2530
*ANIM,          <ENG,                                                   2531
*ANIM, +N*POSS, /72/240/SP120/,              SEE 2534,                  2532
*ANIM, 0=PL,                                                            2533
*ANIM, 0=PL, +N*ABS, /SP120/, SEE 2532, (SOLID, NOT SURFACE),           2534
*ANIM, <SPAN,                                                           2535
*ANIM,               SEE 1323,                                          2536
*ANIM, SEE 2563,2536,                                                   2537
*ANIM,                                                                  2538
*ANIM, *PREFIX,                                                         2539
*ANIM, +N*ABS,                                                          2540
*ANIM,                                                                  2541
*ANIM, +N*ABS, /SP135/, SEE 1022,                                       2542
*ANIM, WI!*=PL, +N*ABS,                                                 2543
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-ANIM, <SPAN,                                                          2544
-ANIM,                                                                 2545
-ANIM,                                                                 2546
-ANIM,                                                                 2547
-ANIM, +N-ABS,                                                         2548
-ANIM,                                                                 2549
-ANIM, SEE 1355,                                                       2550
-ANIM, SEE 2063, *PREFIX,                                              2551
-ANIM, SEE 1369,                                                       2552
-ANIM, <SPAN,                                                          2553
-ANIM,                    SEE 2617,1368,                               2554
-ANIM, SEE 1010,2062,                                                  2555
-ANIM,                                                                 2556
-ANIM, +N-ABS,                /1066/,                                  2557
-ANIM,                      SEE 1379,                                 2558
-ANIM, KA'-GA=PL,                /7/,                                  2559
-ANIM,                     SEE 1023,                                  2560
-ANIM,                    SEE 2560,1023,                              2561
-ANIM,                        SEE 2560,1023,         /DIV/,           2562
-ANIM, 0=PL,                                                           2563
-ANIM,                              SEE 1489,                         2564
-ANIM,                                                                 2565
-ANIM, SEE 2617,1277,                                                  2566
-ANIM,                            /DIV/,                              2567
-ANIM,                SEE 1349,                                       2568
-ANIM,                      SEE 1349,                                 2569
-ANIM,                                                                 2570
-ANIM, =SPAN,                                                          2571
-ANIM, +N-ABS,                /1052/1074/,                             2572
-ANIM, SEE 2105,                                                       2573
-ANIM, SEE 2059,                                                       2574
-ANIM, 0=PL, *PREFIX, /298/,                                           2575
-ANIM,                                                                 2576
-ANIM, KA'-GAI=PL, 'KAA-=PL,                /6/,                       2577
-ANIM,            SE 2577,                                             2578
-ANIM,                 SEE 2577,2593,                                  2579
-ANIM, SA'-=PL,                                                        2580
-ANIM, <SPAN,                                                          2581
-ANIM,               SEE 2583,                                         2582
-ANIM, KU'-=PL,                    /1042/,                             2583
-ANIM, /1017/,                SEE 1555,                                2584
-ANIM, /1017/,                                                        92584
-ANIM,                                                                 2586
-ANIM, +BND, +PREFIX,                                                  2587
-ANIM,                                                                 2588
-ANIM,                    SEE 1440,                                   2589
-ANIM,                   SEE 1425,                                    2590
-ANIM, SEE 2617,                                                       2591
-ANIM, /256/,                                                          2592
-ANIM,                                                                 2593
-ANIM,                                                                 2594
-ANIM,                        /72/74/,          POSSESSABLE,           2595
-ANIM,                     SEE 1277,                                  2596
-ANIM, +N-ABS, SEE 1514,          /1090/,                              2597
-ANIM,                                                                 2598
-ANIM, NA'-=PL,                    /1006/,                             2599
-ANIM,                                                                 2600
-ANIM, +N-ABS,                                                         2601
-ANIM, +N-ABS,                                                         2602
-ANIM, +N-ABS,                SEE 2514,                                2603
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=ANIM, <ENG,                                                          2604
=ANIM,                                                                2605
=ANIM,                                                                2606
=ANIM, KU!=PL, +N=ABS, =PREFIX, /175/,                                2607
=ANIM,            SEE 1295,2563,                                      2608
=ANIM,              SEE 2617,1430,                                    2609
=ANIM,                                                                2610
=ANIM,          SEE 2802,                                             2611
=ANIM,              <ENG,                                             2612
=ANIM,           SEE 1355,                                            2613
=ANIM,                                                                2614
=ANIM,           <ENG,                                                2615
=ANIM,            SEE 2248,2054,                                      2616
=ANIM,                                                                2617
=ANIM, +BND, +PREFIX,          /133/,                                92617
=ANIM,                     SEE 2617,1347,1348,                        2618
=ANIM,               /1080/,                                          2619
=ANIM,           <SPAN,                                               2620
=ANIM,                    =ENG,                                       2621
=ANIM,              SEE 2222,                                         2622
=ANIM,                                                                2623
=ANIM, +N=ABS,              /KUCA=VE,                                 2624
=ANIM, +N=POSS,                                                       82624
=ANIM, KO!=PL,                                                        2625
=ANIM, +N=ABS, =PREFIX, /1063/, SEE 1082,                             2626
=ANIM, SEE 2617,2592,                                                 2627
=ANIM,             SEE 2513,    ,                                     2628
=ANIM,                                                                2629
=ANIM,                                                                2630
=ANIM, TE!=PL, +N=ABS,                                                2631
=ANIM, +N=ABS,              /1050/,                                   2632
=ANIM, +N=ABS, /KWIHI=V ,                /1049/,                      2633
=ANIM, +N=ABS,                                                        2634
=ANIM, NA!=PL,                                                        2635
=ANIM,                  SEE 2617,1350,                                2636
=ANIM, +N=ABS,                    /1068/,                             2637
=ANIM,                                  /1092/,                       2638
=ANIM,                                    SEE 2554,2536,2617,         2639
=ANIM,                       /1133/,                                  2640
=ANIM, <SPAN,              /1126/,                                    2641
=ANIM,                                                                2642
=ANIM,                                                   SEE 1071,    2643
=ANIM,                     /1165/,                                    2645
=ANIM,                          /1143/,  SEE 2617,2536,               2646
=ANIM,             /1136/,      SEE 2221,                             2647
=ANIM, MA!=PL,           /1140/,                                      2648
=ANIM, /1140/, SEE 2231,2600,                                         2649
=ANIM,                  /1140/,                                       2651
=ANIM, /1159/, SEE 1010,                                              2652


=ANIM, TA!=PL,                                                        2801
=ANIM,  =PREFIX,                                                      2802
=ANIM, SEE 1357,                                                      2803
=ANIM, SEE 1005,                                                      2804
=ANIM,                                                                2805
=ANIM,                                                                2806
=ANIM,                                                                2807
=ANIM,                                                SEE 1010,       2815
=ANIM,                       SEE 2802,0281,                           2816
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=CONCRETE,          SEE 1310,                                          2821
=CONCRETE, +N=ABS=ABS,              SEE 1053,                         92822
=CONCRETE, +N=ABS,          /DIV/1019/, SEE 1053,1125,                 2822
=CONCRETE, SEE 1204,                                                   2824
=CONCRETE,                                                             2825
=CONCRETE, SEE 1440,                                                   2826
=CONCRETE,                                                             2827
=CONCRETE, SEE 1445,                /138/,                             2828
=CONCRETE, SEE 1378,                /SP126/,                           2829
=CONCRETE,                /1092/, SEE 1450,                            2830
=CONCRETE,               /243/,                                        2831
=CONCRETE, +PREFIX,                         /1092/,                    2835
=CONCRETE,                /1141/, SEE 1334,2826,                       2840


                                                                       5101
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                                                                       5106
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      /=KWA(I)/=NKA(I),                                                5108
                                                                       5109
+ENC,                                                                  5110
                                                                       5111
      /=NI,                                                            5112
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                                                                       5114

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                                                                       5118

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       /=R(E)/=C(E)/=NT(E), SOURCE OF HAB TNS/ATTRIB ADJ/SUBJ REL,     5124
                                                                       5126

=MOM, (BECAUSE), /J(U) AFTER =AI=,   (LIKE SUBJ),                      5130
=MOM, (BECAUSE/IF),              /133/,  (UNLIKE SUBJ),                5131
+MOM, (HAVING V=ED) (VAA=CI=BEING ABOUT TO),       /1040/, (LIKE SUBJ), 5132
+MOM,    (UNLIKE SUBJ),                  /1112/,                       5133

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+ENC, +Q,                                                              5160

+ADJ=PREP, +N=PREP,                                                    5165
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                                                                        5212
+ANIM, -KA-RE-M( )=PL,                                                  5213
                                                                        5220
+ANIM, +ADJ-PREF,          (-CI- PROBABLY DIMINUATIVE), (// TO -NTE-M(E)), 5230
-ANIM,                     /281/1052/1092/,                             5240
                                                                        5250
                                                                        5251
                                                                        5255
                       /-N?UMP(E),                                      5261
                                                                        5262


        LIT=NOT HAVE GOOD HEART, /296/,                                 8101
      LIT=NOT HAVE THERE, /1117/283/296/,                               8103
                  /134/,                                                8120
                  /58/,                                                 8130
       +Q, +S,          /35/139/268/,                                  8135
                                                                        8140
      /KWA?IJA UKWAJ,           /111/262/,                              8150

                                                                        9013
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