Pit River Languages Project

Summary of work during March 2025

You can download the current Achumawi backup from

• <u>http://zelligharris.org/Achumawi/achumawi-db.html</u>

I have updated the automatically generated Achumawi webonary at

• https://www.webonary.org/odissi/

If you use Keyman to type Pit River on a PC

You will see a notice about upgrading to a new version of Keyman.

When you upgrade to this April 2025 version, you must also download and install a new pit_river.kmp file from our website. On the main download page, click Keyboards, then follow the instructions on the page that opens.

This does not affect the keyboard on your Android device.

My focus now is on pulling together a descriptive grammar. An outline of the grammar is in <u>Outline.odt</u>.

The sections in this report are not in the usual order. Discussion of the Achumawi grammar work is placed last because of its length and complexity.

- 1. 'Acwuké' database project
- 2. Acúmmá 'ó tiši íímačci'
- 3. Grammar

The first two sections are from Paul Cason and Lisa Craig, reporting their work.

This and all prior monthly summaries are archived under a <u>Monthly Reports</u> link at <u>https://zelligharris.org/Achumawi/achumawi-db.html</u>.

1 'Acwuké' database project

Requests for audio: We are in process of obtaining audio recordings of Leonard Talmy demonstrating his pronounciation of example words and phrases. We also have recordings of elders to listen to.

Data entry: There were no significant issues in the regular work of entering Talmy's material into the Atsugewi FLEx database has continued through the month.

Keyman issue: However, when Paul downloaded and installed the latest update to Keyman the keyboard customization stopped working. Uninstalling it and re-installing it is expected to restore it to service.

2 Acúmmá 'ó tisi íímacci'

Language Classes & Resources: Classes focused on translating the creation story this month. We distributed

new language-learning card decks for home use by parents, teachers, and independent learners. These decks feature writable dry-erase surfaces for added flexibility.

Youth Language Workshop: On March 22, team members Connor, Lisa, Radley, Harper, and Paul participated in a Youth Language Workshop hosted by AICLS' Youth Development Committee. We shared experiences and insights with a motivated group of Native youth committed to language preservation across California. This collaboration led to an exciting opportunity: an invitation to contribute an interview for the upcoming summer feature on languages in *News from Native California*. We will have more to say about this next month.

3 Grammar

This month I have worked out most of the structure of verb prefixes. You could accuse me of procrastinating for fifty years, but in the face of their challenging complexities I was unable to recognize their underlying simplicity until I understood the mobility of verb roots and realized the problems of mapping their semantics to English glosses.

Below is a draft section of the grammar. There are obvious gaps. Some subsections are still only sketched with examples and notes: the final subsections on suffixes, the conclusion of the *m*- subsection, the *w*- and *y*-subsections and the subsection on the remote past complexes. But the overall resolution of the issues is an important development, and should be useful for language learners.

In her Shasta grammar, Shirley Silver threw up her hands and said there were only frozen prefix complexes that could not be analyzed. Possibly this may someday be reconsidered.

There follows Section 3.6 of Chapter 3, 'The Verb Phrase'.

3.6 Pronominal affixes

Achumawi verbs typically begin with one or more prefixes which are translated as English pronouns, often together with adverbs. De Ángulo described these paradigmatically, as conjugated declensions in various modes or moods (Figure 3.1).

PERSON	INDICATIVE	SUBORDINATE	OPTATIVE	VOLITIONAL PRESENT	VOLITIONAL FUTURE
"I" "thou"	s- k-	st-	sl-	l- t-	màl- k-
"he, she, it"	к- У-	m- t-	lg- l-	tsl-	к- mál-
"thou and I"	h-	ts.h-	slh-	lh-	màh-
"he and I"	s.h-	sts.h-	ìslh-	slh-	smàh-
"ye both"	gìdz-	mìdz-	likts-	dz-	dz-
"they both"	eiy-	dìdz-	ld-	tsind-	mád-
"ye and I"	hmá	st.hmá	slhmá	lhdzà	màhdzà
"they and I"	s.hmá	stsìs.hmá	ìslhmá	slhdzà	smàhdzà
"ye all"	gìdzmá	mdzmá	lktsmá	dz-	dz-
"they all"	yú	dú	ldú	tsìnddzà	màddzà
"I-thee"	htskà	t.htskà	lhtskà	lh-	mìh-
"he-thee"	ktskà	mtskà	lgtskà	tsìm-	mìd-
"thou-me"	sk-	sm-	sl-	st-	sk-
"he-me"	symá	stìdmá	slidmá	sind-	smid-

TABLE OF AFFIXED PRONOUNS.

Figure 3.1. De Ángulo's paradigm sets. (De Ángulo & Freeland 1931: 91).

Even a quick visual scan discloses repeated substrings such as *s*, *l*, *lh*, *y*-, and so on, suggesting that further analysis might be possible.

A pitfall of eliciting paradigm sets is that you get what you ask for. Even in a vibrant language community with many speakers across all generations, the helpfully compliant consultant may include artificial constructs that fit the paradigmatic pattern by analogy, and may omit forms which are encountered in freely produced utterances, especially in narratives and other texts. A survey of the verb prefixes in the Achumawi database assembles a zoo of diversity that escapes the above paradigmatic bounds. Here is a list of some prefix sequences beginning with *s*-, just a fraction of the diverse combinations that are attested in the database:

Table 3.1. A subset of	prefix combinations,	with s- initial
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I eat, I ate

	scáádáátumá	It comes to us
SC-	scááwáátumá scóósáátumá, scóósáátiníumá	Someone/they give us, hand to us
	scoosaatuma, scoosaatimuma scóstíwcumá	Someone/they said to us, we were told He answered us back
sh-	sihissííní	
511-		we agreed
	ó sĺhiší	I said (to him)
slh-	sĺháwwí	We (excl. nonsingular) gave it (we inclusive = lháwwí)
	slháwwíumá	We (excl. plural) gave it
	sĺháwwicka	We gave it to you
sk-	skááwá	You gave it to me
ť	in i	Did you give it to me? (Question intonation)
sk-	skááwá	You should give it to me! (Affirmative intonation)
skc-	skicáwwá	One gave it to us (incl.); you two gave it to me
		You (you and he?) gave me, you gave us incl.
skc-	skicáwwá	You 2 should give to me
	slááyuuka	I'd like to go too
sİ-	slímmátsi	Would that I wake!
<i>SI</i> -	slámmíuma	We wish to eat
	slápta	If I go
slh-	ẳấq ^h á pá qa wáhhac slhísửac	He and I will get bread again. I'll get bread for him again
slc-	slcitápwaaci	Help me!
	sĺkitt ^b éw	You should listen to what I say
slk-	haý slkínúw	You should think about me.
	sla'ám	If I eat, I might eat, would that I eat!
2	sla'ápta	If I go, I might go, would that I might go!
sľ-	sľúpta	I ought to go
	sľíiciíyáq	I might accidentally hit one (with a stone)
	smáámi	Might I eat?
c m	smáámá	Did I eat?
sm-	smálictik	I might get scared
	smiší	Was I talking? do you say to me? might you say to me
1	smháámá	Did he and I eat?
smh-	smhálilládti, smhálilládtumá	Do we like it?
	yáámá twiỷí cé smícáácínóo tipsíwci	"She's eating" I guess he thought
smc-		He might have done wrt me

	smtaaĥí	You go ahead of me;
smt-	smtánáš	Let her sing a charm/love song to me!
51111	smitaak ^h áátúyumá	Is he cutting it for me?
	smtálíllaðtumá	Does he like me?
snt-	sintaak ^h át	He will (intends to) cut me!
5111	sintám	Let him eat me!
	stáwwá	Give me!
	stáwwáátumá	Someone gave to me
st-	stámmá	Eat us!
	stáámá	I already ate (a while ago); that I eat
	táq stiỷí	What am I?
stih-	stiháámá	We (excl) must have eaten it! That he and I eat.
stit-	stitínímmáácumá	They 2 must have seen me
sť-	táq wáli sa ỷa yályú wiỷááké' sťiiỷí!	What kind of man am I?
ata	c ^h ú sticóósi kúcumá itt ^h úúni tatỷí ka	What will our mother say to us?
stc-	sticákasaswacínóo	He shepherded us.
at ile	táq c ^h ú iccí wíc sticéuwí	What does it look like I'm doing?
stih-	táq c ^h ú iccí' wíc stihicéuwíumá	What does it look like we're doing?
stlh-	táq stlhiccíumá	What are we?
	stiticépťaswacumá	Is he watching me?
, • ,	kí ka mów stituwáátuma té tiici,	Who might it be who is being this way to me to do this way,
stit-	ki wáli ka stituwáátuma?	Who is being this way to me?
	stitínímmáácumá	They 2 must have seen me
stk-	c ^h ú stikáámá	Did I eat? (How/what did I eat? de Ángulo)
stkih-	c ^h ú stkháámá, c ^h ú stkhámmíumá	Did we eat? (How/what did we eat? de Ángulo)
stlú-	hew stlúw	Don't let me forget!
stlh-	stlháátíwci , stlháátíwcumá	We must have had a fight
stm-	stmóólaaci	You (evidently) feed me
	-	

	stwátúúla'áyí	It tastes so very good to me!
	stwaasáámí	I gathered things (recently)
	stwálissuuyáti	I pointed at him
stw-	stwináhwa	I couldn't see it
	stwinúnnéhmíci	I overslept
	miícim hay stwinúuwi	I remembered yesterday
	cp. haỷ sínúuwí qá pálṁas	I remember now
stawa-	c ^h ú stawááci kúci qa páálá máátíỷ ca	What am I (supposed, required) to do today?
stawa-	skak skak stawaačúúcí	I was snoring
	styáátíwci	I must have had a fight.
atu	tóólol styááwíumá	They gave it all to me
sty-	styálisqááti tsiỷí	He and I are pointing at him
	styáncičiimí	I lost it (lit. by my <i>ci</i> loose control it <i>ci</i> fell <i>im</i> away)
	st ^h áyáámá	I must have eaten it!
	st ^h áyáátíwci	I must have had a fight!
	ćé st ^h áywi ĥaỷ tuci	I never thought that
st ^h áy-	cé st ^h áywi tinímmátsi	I couldn't wake up
st ay-	hew st ^h áyuwi	I forgot (but now remember)
	cp. hew suwí	cp. I don't remember
	asčé t ^h áyuwi	It's cold!
	ámitt ^h éwcan t ^h áyuwi	It's a girl! (announcing birth)
	syáámúčcum	He lifted me (in arms) syámmíumá He eats me (etc., with -um)
	syísáátumá, síysáátumá, síísáátumá	He said to me; I was told
sy-,	siyáwwíumá	It was given me
siy-	siyééyiilakumá	He follows me
	siyúumá	He is to me
	siyuwáátumá	He is wrt me.

Such a zoo! But it is actually far less complex than it seems. There are only a dozen morphemes which occur in various combinations:

- *s* Speaker (first person; I, we)
- *k* Hearer (second person; thou, you)
- *c* Hearers (nonsingular second person; you)
- *h* Speaker-hearer (we, transitive I-you)
- *1* Intention, will
- *m* unmanifest (might be)
- *t* Manifest (news to hearer)

- $t^{h}a$ News to speaker
- *w* Durative state: characteristic, habitual, durative condition
- *y* Transient state: current condition

cky-, ckw- remote past 3^{rd} person

' Potential (ought to be)

The two statives w and y may function as 3^{rd} person prefixes as described in the section on implicit pronouns. The analysis of the eleventh item, the compound prefix *cky-*, *ckw-*, is still speculative. The other compounds have reasonably straightforward analyses, as exemplified by those beginning with *s*- which are listed at the beginning of this section. The twelfth item appears as the glottal stop onset of the stem in e.g. *táq I'ám* 'What might she eat?', *táq sI'ám* 'What might I eat?', in the glottalization of \vec{k} - for the second person interrogative and 'polite imperative' forms, and probably accounts for the varable glottalization of \vec{l} -, \vec{m} -, \vec{w} -, \vec{y} -.

Suffixes mentioned in context of one prefix or another are describe more completely in other sections.

Imposing the 2-dimensional table structure of verb-conjugation paradigms only obscures the semantic contributions of these morphemes. The constraints on combinability are more pragmatic than paradigmatic. Several modifying suffixes that occur with one or another of these prefixes are described at the end of this section.

Implicit pronouns

In the absence of an explicit 1^{st} person or 2^{nd} person prefix, an implicit 3^{rd} person argument is presumed. Consequently, a number of prefixes with particular functions may appear to be 3^{rd} person pronouns, even the argument indicator *t*- marking a subordinate clause when the subordinating higher operator (often in the 'say' family) has been zeroed. The stative \dot{w} and \dot{y} are clear examples.

Direct address is an exception. When direct I-you address is clearly the context, m- 'unmanifest' is interpreted as 2nd person, as is also the case with the argument indicator t- in imperative forms, for which a 'say' verb of command is the zeroed subordinating higher operator. Examples are given below in the sections devoted to these prefixes.

s: 'Speaker' (first person, I, we)

The *s*- prefix is used for first-person references, except that when both speaker and hearer are involved, h- is used instead (q.v. below).

Examples with s- 'first person' are presented at the beginning of this section.

sáámá "I ate"

The suffix *-um* designates a 3rd-person agent, so that s- is the patient.¹ This may be glossed with a passive verb or with an impersonal or indefinite 'someone':

síísáátumá	One told me, I was told
te síísáátumá qa ís wáka	That's what people told me
síínínumá	He brought me

The long vowel *ii* may be a reduction of the transient stative *y*- interpreted as 3^{rd} person. There are *s*-..-*umá* verbs in which the stem begins with a short *i*.

The combination of *s*- with the evidential usage of *t*- is pronounced $[c^h]$.

it tsiỷí [ɪtʰ cʰi"j]

'It's me'

After a vowel that *t* at the beginning of a word-initial consonant cluster ordinarily closes the preceding syllable.

céémul twiỷí [céémol t ^{hư} wi ^y í]	'He's Coyote'
$q^{h}e twiyi [q^{x}e^{y}t^{h} wi^{y}i]$	'It's that one; that's the one'

In this case, the evidential *t*- is rearticulated, even with the phonetic realization of *ts* as $[c^h]$:

it ká tsiỷí [$tt^h kát^h c^h i^{y_i}$] 'It is indeed me!'

k- 'hearer' (second person, you)

The explicit 'thou, you' prefix on a declarative verb is k-.

kááma 'You're eating, you ate'

When it is followed by the '- 'potential' prefix (glottal stop, q.v. below), the result is a laryngealized \vec{k} . The ? punctuation represents question intonation: high, slightly rising, with sentence-final reduction toward whisper or devoicing. The ! punctuation represents exhortative intonation, the 'polite imperative': level or

¹ This *-um* derives from the possessive *u* plus *m* 'down to, down into'. When it occurs after a noun or a name it may be glossed '___'s place', as in *qá kac^húni wačiíni um* 'their uncle's place' (i.e. where he lived) or *Céémul um* referring to Coyote's designated personal space in the communal winter house.

slightly falling, with somewhat more amplitude and more fortis articulation than a simple assertion.²

kammi	'You should eat!'
<i>káámá</i>	'Are you eating? Did you eat?'

A few of the other affixe combinations are described here. Add *c*- for the nonsingular (or dual if contrasted with plural):

kicáámá	'You (2+) ate.'
<i>kicáámá</i>	'Did you (2+) eat?'

To make this nonsingular form explicitly plural, the *-um* suffix refers to an additional 3rd-person participant:

kicámmíumá	'You pl. ate.'
<i>kicámmíumá</i>	'Did you pl. eat?'

The -icka suffix indicates a 2nd-person patient:

kámmicka	'Someone ate you.'
kámmicka	'Did someone eat you?'

The following example illustrates a combination with the *w*-stative, glossed as 3^{rd} person. The gloss on \vec{k} - (in $\vec{ce} \, \vec{kuwwi}$ 'are you not!') is neither interrogative nor imperative, but within the language and apart from this English metalanguage the intended meaning is straightforward.

kwacállúccícaswaci,	You've been cleaning (roots and) lifting (to feed him)!
má tkiỷí cé kuwwí tinúúsaay	That's why you haven't harvested!

At the end of the first verb, *swaci* is an auxiliary on the c 'do, be' root, with first argument w- and indefinite second argument s- 'something'.

c: second person nonsingular³

This prefix was introduced with k- in the preceding section. To illustrate this more fully, consider *skicáwwá*, a simple verb comprising the root *áw* 'give' preceded by

- s- first person
- *k* second person
- *c* nonsingular (second person)

² Elsewhere in the grammar (Chapter 5, Reductions), these are traces of zeroed higher-level operators which represent the semantics explicitly.

³ The initial vowel in *6 icisi* 'you two talk!' suggests that the underlying form of this prefix could be *ic-*, but the status of the initial stem vowel is currently unsettled.

In a transitive verb, pronoun order is OSV. This can be glossed in three ways:⁴

skicáwwá	'You (nonsingular) gave it to me'
	'You gave it to us (inclusive of you nonsingular)'
	'One gave it to us (inclusive)'

If context is not sufficient, an independent pronoun can disambiguate.

	'You (nonsingular) gave it to me'
micist ^h úúlééka skicáwwá	
miimééka skicáwwá	'You gave it to us (inclusive of you nonsingul
kac ^h ééka skicáwwá	'One gave it to us (inclusive)'

The same construction is seen with \vec{k} -:

skicáwwá?	'Did you (nonsingular) give it to me?'
skicáwwá!	'You (nonsingular) should give it to me.'

The question and the 'polite imperative' entail direct address by the speaker to the hearer. This greatly reduces the likelihood of the inclusive first person interpretations.

This construction may be used for plural as well as for dual. The suffix *-um* makes this explicitly plural by designating an additional 3rd-person participant:

<i>skicáwwíumá</i> 'you	gave it to us'
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When speakers were asked to distinguish dual and plural number, they added an independent pronoun:

mimééka skicáwwíumá	'you're the one who gave it to us'
mimééka ya má tskciýí skicáwwíumá	'You indeed you are who gave it to us

This prefix does not specify the affiliation of the 3rd person who makes it plural, whether on the speaker's side or the hearer's. This results in some ambiguities in the English glosses.

skicáwwá	One gave it to us (incl. $2 +$).'
	'You (2+) gave me.'
	'You gave it to us $(2 +)$.'
skicáwwíumá	One gave it to us (incl. pl.).'
	'You (pl.) gave me.'
	'You gave it to us (pl.).'

It can occur without the $k-2^{nd}$ person pronoun with the inclusive 1^{st} person plural (including the hearer).

sýcáwwám	'Let him eat us!' (<i>s- y- '- c- w-</i>)
c ^h ú sticóósi kúcumá itt ^h úúni tatỷí ka	'What will our mother say to us?'

4 The vowel *a* at a margin often betokens will or volition.

With the exclusive plural, it appears to be reduced from a combination with the evidential *t*-making the cluster ty:

styacépťaswacinóo > scacépťaswacinóo'He watched us.'scááqáátumá'It comes to us' (approaches, presses against)scááwáátumá'They give us, they hand to us'scóósáátumá'We were told, one told us'scóstíwcumá'He answered us back.'

h- 'l-you'

Whereas *s*- is the usual way to refer to the speaker (first person) in intransitive situations, and to the speaker as patient in hearer-speaker transitive situations (*skáwwá* 'you gave it to me'), the *h*- prefix is used instead for the speaker as agent in speaker-hearer transactions (I-you) and for first person plural forms ('we').

allu hiníumá	'We're hungry'
hineeláátiwi	We played around.
háwwicka	I gave it to you
ó hišááticka	I said to you
	•

Hortatory expressions with preceding *l*- 'intention, will' in the combinations *lh*- and *lh*- are described more fully in the next section. Often, *lh*- occurs without a clearly hortatory gloss.

allu lhiníumá	'We're hungry'
lháwwicka	'I gave it to you'
ilískéékí lhiỷí	'We're playing music'

Previous researchers have treated *h*- and *lh*- as alternants of the same pronominal prefix. De Ángulo described the inclusion of *l*- as an attribute of downriver dialects. A decade later, Voegelin attributed the choice to dialects somewhat differently.

The *h*-prefix occurs in other combinations.

mháámá.	'Did you and I eat?' (nonsingular inclusive)
smháámá.	'Did he and I eat?' (nonsingular exclusive, i.e. <i>s</i> - = 'my side')
mhámmíumá.	'Did you and I eat?' (pl. inclusive)
smhámmíumá.	'Did they and I eat?' (pl. exclusive)
tímáátánóm mhišá, má ánca kímáátánmi.	'When I say "Look down!" then you should look down.'

Here, too, the *h*-may occur with the continuant prefix elided.

 $i dq^h a mhnimm a dc o o \sim hnimm a dc o o$ 'May we see one another again!'

I- 'intention, will'

Glottalized and plain alternants of the *l*- prefix occur in the record. The glottalization of word-initial continuants is easily missed, and these alternant forms may in fact be in free variation.

lám!	I'll eat!
İhám!	let's eat! (nonsingular)
İháámi kúcí İhámmíumá	we are going to eat!
	we eat; let's eat! (plural)
slhámmíumá	Let's eat! (excluding you)
lhámmá	let me eat you!
lhuwí táq lhám lhuwíuma tág lhámmííca	What shall we eat? (nonsingular) What shall we eat? (plural)
c ^h ú mów İhíy	'What shall we do?' ('How might it be our state, what we do?')

The word-initial continuant is often omitted in speech, in the linguist's transcription, or both.

háámi kúcí	we are going to eat.
hámmíumá	we eat
shámmíumá	we eat (excluding you)

Just how often the *I*- is elided is a matter of some uncertainty and perhaps confusion in the data. The initial unstressed *I*- is easily elided, even in exhortations where the volitional meaning of *I*- is necessary (e.g. *lhúpta!* 'Let's go!" next to lúpta! 'I'll go!'), and when it is pronounced as a syllabic *I* with no epenthetic vowel, or even as a voiced aspirate I^h one can readily understand how it might escape a linguist's ear, especially in what might be called al fresco transcription under less than ideal circumstances.

There may be dialect differences, but this question, too, is fraught. In a rapid tour through Pit River country, Carl Voegelin recorded only declarative forms without the volitional senses, and reported the following as dialect variations.⁵

lh-, slh-	Atwamsini (Big Valley), Acúmmááwi (Fall River Valley)
h -, c^{h} ∂h -	Ilmááwi (below Fall River)
c ^h əh-, sc ^h əh-	Hámmááwi (upriver south of Alturas)

These forms differ from what de Ángulo reported, though most of his material is from the Alturas area (Qússialléqta 'juniper flat') and Big Valley. The forms other than *h*- and *lh*- are probably exclusive nonsingular or plural forms with *s*- or ty- ~ *c*-. It appears that de Ángulo and Voegelin came to these somewhat divergent conclusions on the basis of limited data, without recognizing the full range of possible prefix combinations, while treating these as unanalyzed unitary prefix morphemes.

⁵ Voegelin, Carl F. (1941). Notes on Klamath-Modoc and Achumawi dialects. *IJAL* 12:96-101.

Although the most frequent occurrences of \dot{l} are in first-person usages like those above (and of course this is necessarily so for exhortation), it does occur with other pronouns, for example, with k.

	'If you eat; you wish to eat'
	'You want to eat'
lkáámá	'If someone ate you'
İkám	'if you run'
lkámmicka Íkahuumå	'You should tell her!', 'Why don't you tell her?', Why doesn't he tell it to you?'
İíkítámmaakúyi	'Tell it for her!'
İíkítámmaakúúyúyi aamíć umá İkííćiiláka	'You must have lice!'
lkííla	You ought to share the food, you ought to give some of the food.'
haỷ İkínúw	'Someone should think about you.'

Radin recorded a few forms with *lw*-.

lwúnná	'if he comes', 'May he come!'
lẁúnná umá	'He might have come'
İwahuuma	'if he runs'

There is even a combination with the *t*- which has ordinarily been glossed as an imperative

táq İtám	What will you eat?
táq İtámmííca	What will you (plural) eat?
aasí tsiỷí amq ^h ákam İtámmá.	'I can't, but I'll try to eat it!'
sİtituuqaáluma	'He might hit me.'
sİtiilá umá míssuc	'He might give me meat.'
sltitámmaakúyi umá	'Perhaps he'll tell me.'
slhintámmaakíumá	'We tell him.'
slhintámmáákumá	'We tell the story.'

'- Potential (ought to be)

This is most clearly evident as a prefix morpheme when it appears before the stem vowel.

táq ľám?	'What will she eat? What might she eat?' (talking to oneself)
táq sľám?	'What should I eat? What might I eat? What's there for me to eat?'
q ^h ahé sl'áámá háné'	'I wish I could eat that one.'
sľúpta	'I ought to go.'
táq mówa la'ámmííca	'What are they going to eat?' 'What might they eat?'
ícisúpsaayáke tímcan sľúw	'(Two) take care of yourselves if something bad happens to me.'
waċííniiwí wáte kicúpté c ^h ú sa amá sľúw	'Go to your uncle's if anything happens to me.'

taqqálcan umá sl'íníumá'Maybe I might find something, something might come to me.'The glottalization of the continuants \dot{l} , \dot{m} -, \dot{w} -, \dot{y} - is far less clear and consistent in the record. Nobodyrecognized its significance, including me, and it is easy to miss in transcription.

I have proposed that it appears in the glottalization of \vec{k} - for the second person interrogative and 'polite imperative' forms. However, de Angulo and Radin may have recorded forms with the sequence $l\vec{k}$ - where k-+ '- is not reduced to \vec{k} -.

lka'áámá	'You wish to eat, you would eat, if you eat'
lka'ámmicka	'He would (like to) eat you, if someone ate you
lka'ahuumá	'if you run'

For these, de Ángulo writes rising tone, *lg-ărmá*, *lìg-ărmá*, and Radin has *lɔqɔḥomɔ* 'if you run' next to *slaḥoma* 'If I run', which I understand to be *slaʾahuumá*.

m- 'potential, unmanifest'

The *m*- prefix appears with glosses involving a variety of English pronouns, second person, third person, and impersonal. From an English gloss point of view, it is inherently ambiguous. From within the language, it says only that some aspect of what the verb is talking about is potential or unmanifest. A generic gloss could be "it might be that __". This is particularly clear when another pronoun is explicitly present, as in

hew umá muwí.	'Maybe he forgot.'
ťe 'umá muwí.	'Maybe that's it.'

When there is no explicit pronoun, context identifies the referent. In the following conversation about gardening, the *m*- is interpreted as 3^{rd} person in the first two sentences, and then is glossed with a 2^{nd} person pronoun in the third sentence.

ámod wáka umá tmiýí máámá.
'Worms must have eaten it.' (Worm|agent|maybe|it might be|possibly ate it.)
wálamúúsá 'ka umá tmiýí máámá qá wattu. 'Maybe it was a mole that ate the root.'
wéé, cé tmuwwí titawwááti!
'Oh, it must be you didn't water it!'

The agentive $\dot{w}\dot{a}ka$ and its reduced allomorph $\ddot{k}a$ identifies the 3rd person subject in the first two sentences. A literal reading of the third sentence is "Oh,|not|it might manifestly be|make the rounds [with water]". The agency of the hearer is not explicitly represented, but it is implicit because the speaker is addressing the hearer in the conversational situation.

wawa muwi qa as	'Is the water big (in the road)?'
wawa muwi	'You're big.'
táqqááli tuccáámé' tmuwí	'You evidently can't do anything.'

With question intonation, *m*- is used with 3rd-person questions in contrast to \vec{k} - for 2nd-person questions:

<i>máámá</i> (vs. <i>káámá</i>)	
smáámá	'Did he eat?' (vs. 'Did you eat?')
allu ṁuwí, má tmiỷí ṁáámá qa wáhhac?	'Did I eat?'
	'Was he hungry, is that why he ate the bread?'
allu ỷuwí, má twiỷí ṁáámá qa wáhhac.	'He was hungry, that's why he must (might) have eaten the bread.'
allu ỷuwí, má twiỷí ỷáámá qa wáhhac.	'He was hungry, that's why he ate the bread.'

However, when a question word precedes the verb, *m*- is more likely to be a 2nd-person question insofar as the question word is likely to be addressed to the hearer:

táq mów máámi kúci?	What will you eat?
c ^h ú misunwí?	How do you feel?
c ^h ú mópsíw?	What do you think?

In the following conversation fragment, Porcupine is responding to Coyote's interest in his shoes:⁶

pi!	"Here!'	
c ^h ú muwí?	'How are you?' (i.e 'How do you like them?' Alternatively: 'How is it?')	
t ^h úsỷí tici tmánuwí qa pi.	'These are good ones.'	
íímúntíwa!	'Look them over!'	
pi tmánuwí qa kláála ckiší céémul wáka. 'Are these the shoes?' said Coyote.		
The following sentence is translated with a 2nd-person gloss:		

mináyumá lhipsíwcicka.

I thought you were dead.

The literal translation is "'He must be dead" I thought about you', or "'He might be dead" I thought about you'.

This variability is shown by the ambiguity of the combination of *m*- with o \vec{l} - 'intention, will' (q.v. above). Speakers glossed $m\vec{l}$ - with either 3rd person or 1st person as the subject or agent, using the same 1st-person gloss as for \vec{l} - alone.

İám	I will eat! Let me eat!
mlám	I will eat!
mlám	He should eat! Let him eat!

The addition of *m*- defers the immediacy of lam! De Ángulo interpreted this as a future volitional tense (*málám*).

Volition and potential both bring the unmanifest into manifestation. The difference between them

⁶ This is Porcupine's glib sales patter (which de Ángulo treated as one sentence), followed by Coyote's question whether these are the shoes whose prints in the snow he had admired.

is not easy to capture succinctly in the English glosses. To express the conditionality distinction between 1st-person \vec{l} and 1st-person \vec{m} in English, the impersonality of *m*-must be explicit.

táq mówa máámi kúci?	Whatever will you eat?	
táq mówa mcáámi kúci?	Whatever will you eat? (nonsingular)	
These examples below are glossed with either 1 st or 3 rd person subject,. The 1st-person interpretation is		
pragmatically less probable, but available, and context may favor one interpretation or the other.		

mil mlúw	It might be that I will willfully be confused! Let him be confused!
c ^h ú sa aamá ó mlís	I might say whatever I want! Let her say whatever she wants!

An example translated with a relative clause further illustrates how the essentially impersonal *m*may be interpreted diversely. The free translation is "The man who came yesterday said he would come today", but the second clause quotes him saying 'I might come'.

mííčim qa ís ỷáát ^h uuki	Yesterday the man came
amq ^b á mluut ^b uuka wiśí qa páálá.	that one said 'I might come' today

Immediately following this, illustrating how the pragmatic interpretation of *m*- is sensitive to context, Mrs. Rhoades gave a 3rd-person gloss for the identical word:

mlut^huuka

He might come.

To be clear, in $amq^h \dot{a}$ "S" wisi the $amq^h \dot{a}$ is the anaphoric subject of wisi, it does not correspond to English *that* in *he said that* "S".

mti

cahóómaka mtííyuumi 'the dog might die'

cé tuccó tíluuýááki, wawá mtííci. 'Don't stretch, you might grow!' (i.e. you're tall enough)

smc- smicáácínóo he might have done

mh .. ca (instead of uma) m- unmanifest c addition to 2^{nd} person a volition

Irrealis : *m-,* '-

<i>m</i> -	táq minímmá What do you see? [táq ttánuwí What is it?];
	táq c ^h ú miší What did you say? c ^h ú miší What do you mean?
	<i>táq c^hú miỷí</i> What did you do with it? c ^h ááwa $c^h ú mi y'$ í Where were you/Where did you put it?
	c ^h ú muwí. t ^h úsỷí tuci tmánuwí qa pi.
	<i>c^hú múw İhíy</i> What shall we do?
	taqqáwcan c ^h ú missááticka Did he say anything to you? [3 rd person

тс-	táq mówa mcáámi kúci Whatever will you eat?
	<i>mcálílléqti</i> You $(2+)$ might like; <i>C^héyé mcápte kúcí?</i> Where are you $2+$ going?
	<i>c^hú mcóóci kúcumá</i> What should you do?
	táq wáli c ^h ú mcuwíumá What's the matter with you?
1	

mh- We 2+, I-you

- *ml I* will *eat*! (fut. volitional); *mluuk^báátam* She might have fainted. *mil mlúw* Let him be confused! Let him forget!
- *mt- mtilísté puwááwí ka* A buck might hook you; *mtíílúúmi* You might get stuck in mud
 c^hú mtóóci kucá What will he do to you?

The negative *cé* plus a word glossed 'be' or 'do' is idiomatically translated 'I guess'.

q ^h am cé múw tínínnááci tucci	I guess it didn't grow
<i>cé micííní titílííwi qa waslíw.</i> I guess they sent for the soldiers.	
hew cé múw tici	I guess she forgot.
It is idiomatic in isolation:	
cé muccí?	Why not?
ćé muccí qa ís?	Did you ever see an Indian who didn't?

The *h*-prefix occurs in other combinations.

mháámá.	Did you and I eat? (nonsingular inclusive)
smháámá.	Did he and I eat? (nonsingular exclusive, i.e. s - = 'my side')
mhámmíumá.	Did you and I eat? (pl. inclusive)
smhámmíumá.	Did they and I eat? (pl. exclusive)

tímáátánóm mhišá, má ánca kímáátánmi. When I say "Look down!" then you should look down. Here, too, the h- may occur with the continuant prefix elided.

ťáq^há mhnímmáácóo ~ hnímmáácóo

'May we see one another again!'

Glottalized and plain alternants of the *m*- prefix occur in the record. The glottalization of word-initial continuants is easily missed, and these alternant forms may in fact be in free variation.

t^{*h*}*a*- 'news to speaker'

This appears to be an idiomatic use of te root t^{ha} , $t^{h}e$ 'hear, listen, mind, obey' as a preposed enclitic

t^háy- t^háyuwí, mállíssámé' t^háyuucííní

t^hám- q^hám t^hámiỷí qa aamíć

t^hán éléplaaláwí t^hániỷí; mapsilíí t^hániỷí; cehaaỷí t^hániỷí; uq^hááqí t^hániỷí mimú tuuwáámé;
 wé iší t^hániỷí Well, he must be talking. wínámmaací t^hániỳí

acpú mów t^hánisííní qa pálmas áytu.

acpuuỷí t^hánisííní qa pálṁas áỷtu.

twášííní.

t- argument indicator

On the face of it, this is the most difficult prefix to comprehend under one definition, because its varied semantics derive from a higher-level operator entering on it, which is not always overtly spoken. It occurs frequently under a stative operator.

čé suwí tit ^h ééwi pi q ^h á kuwáátička titaaẁaaỷúúyička.	'I didn't hear.'
	'She cooked this for you.'
túúni kú yuwá húúťa	'Rattlesnake will come.'
tétwi kú kuwááticka	'He's going to kill you.'

That operator may be zeroed, leaving the appearance that t- is a pronominal prefix.

wawá títhalúumi [yuwí] qá as tánáláátaawi. 'Fetching water [is] a lot of work.'

When a verb of command in the 'say' family enters on a sentence, with a volitional form of the verb stem and hortatory intonation, the superordinate 'command' verb can be zeroed.

támmá!	'Eat!'
taapámcóo!	'Put it down!'

If a statement of the evidentiary basis for what is said is superfluous in the given context, it may be zeroed and the *t*- argument indicator under it attests that the remaining assertion is inferred from something that the speaker knows. This accounts for how the 'evidential' use of *t*- ranges from 'hearsay' to 'manifestly evident'. The effect often is of providing information that is known to the speaker and new to the hearer, in contrast to t^ha in the preceding section. In this kind of usage, the argument-indicator *t*- can be combined with the other prefixes

	'I forgot you.'
hew tíhuuwícka	'What are we going to do?'
c ^h ú tihóóci kúci. c ^h ú tihóóci kúcumá.	'Rattlesnake will bite you.'
húúťa ka iicí tkuwááticka.	'They will kill you.'
yatwí tkówááticka.	'That's the one who hit all of you.'
q ^b é ka tkcuwwááticka kicámmáálicka tóólol.	'It's a sanding stone.'
ġaċ tỷánuwí	(T4)1, -11)
čókca tyániimi	'It's shallow.'
ttáámá, tyámmíwci	'They must have eaten it.'

It may be combined with a prior occurrence of the argument-indicator *t*- under a previously-entered operator, resulting in *tt*- (the first one aspirated or with a partly devoiced or otherwise reduced epenthetic vowel).

ťé mów sicó'oy, ka tsicó'oy ckwapsíwci.	'What was I doing? That's what I was doing!, she thought.'
q ^b é tím ttiỷí ttápté.	'Right there is where they've gone!'

táq ttánuwí qá pi?

'What is this?'

Still further combinations are possible.

táq wáka slticéptaswacumá	'What could be watching me'
qa q ^b é tmicépťaswacicka	'That one was watching you'

The combination ty may merge phonemically with c^h .

	'What does he do?'
táq tyicci ttííýi	'Let him eat!'
tylámmá, tylám	'Let him go!'
tylúpta	'Let him see you!
tyminímmááci	'Let him eat you!'
tymámmi tyntám	'Let them eat!'
salaaquupá tywaqáácí	'Sheep is grazing'

This can introduce an ambiguity between sty- and sc- with the second person nonsingular c-.

scááwáátumá	'They give it to us'
styóónáykumá	'She's chasing us'
tétwi kú styóówáátumá	'She'll kill us'
styánciciimí qá itt ^h ú sát icaaduuláké.	'I lost my pocket knife' (evidently fell from me by looseness)

There is at present no such derivation for occurrences of t- '3rd person nonsingular'.

tytám!	'let them (two) eat!'
tytááhuuma!	'let them (two) run!'
tytáátíwci	'They two were fighting' (hearsay)
ttáámá	'They two are eating.'
mtoosá?	'Did they two drink?'
mtáámaatí	'Did they two sleep?', 'Let them two sleep!'

There are a number of other cases that do not yet fit comfortably in this analysis. This section closes with a list of six 'hearsay' examples.

tyáátíwciwcí	
tytáátíwci	'They were fighting.' (Written $c^{h} \dot{a}$ -)
tyáátíwci	'They two were fighting' (Written ctá-)
tymáátíwci	'He was fighting' (Written chá-)
tymtáátíwci	'You were fighting' (Written cmá-)
	'You two were fighting' (Written cmitá'-)
tymtattíwcumá	'You plural were fighting' (Written $c^{h}mitatiwcuma$)

w- 'characteristic, habitual condition' (3rd person)

y- 'current condition' (3rd person)

syétwíumá qá wawá puwwááwí ka A big buck killed me. [Knocked me unconscious.]

cky-, ckw- 'remote past 3rd person'

 $ty - ka + 3^{rd}$ person y- or w-

Remote past 3rd person:

ck- $c^h \partial kV$ ckw- $c^h kwV$

cky- c^hkyV

tyt-/ct- ctápti They went (recent past), *ctáptééni* They went (remote past)

ckyápte ~ ckápte, but ckyáásá

y-

itthééwicka yuwáásá. I heard you singing.

 \mathcal{W} -

N u-Vstem > [N] w-Vstem

um

Patient or agent 3rd party: -um

If an explicit subject is stated, it must be marked as the agent with waka (reduced to ka after a vowel)

síínínumá	'he brought me' (<i>in</i> 'transition, change state, move' + - <i>in</i> 'past')
cktétwíumá qa céémul	Coyote was killed
q ^h é ka kámmáálicka	That's the one who hit you.
q ^h é ka tkcuwwááticka kicámmáálicka tóólol	That's the one who hit all of you
q ^b é ka tỷíwáátumá íyámmáálumá	That's the one who hit her.
q ^h é ka tỷíwáátumá íyámmáálumá qa q ^h é có	That's the bunch who hit her.

-icka

Patient 2nd person: -icka

Maybe V-ic 'ka whence icka~iča. itt^hééwicka yuwáásá. I heard you singing.

syálišcááticka I came over to converse with you; sáliisuyyáticka I recommended you

deA: Grammar: 1014-1028 c^hú tkhámmicka etc.