Preface

This sketch of Siberian Yupik grammar should be regarded as the roughest preliminary version. The author cannot claim to be an expert in the grammar of this language, nor has this draft been checked by a native speaker. Consequently, there are undoubtedly a number of mistakes, and these should be regarded as errors of recording or interpretation on the part of the author and not the fault of his informant.

Comments and corrections will be gratefully received.

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A GRAMMATICAL SKETCH OF SIBERIAN YUPIK ESKIMO AS SPOKEN ON ST. LAWRENCE ISLAND, ALASKA

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I. Introduction

This grammatical sketch deals with the Yupik Eskimo language spoken on St. Lawrence Island and the easternmost tip of Siberia. This language will be referred to as "Siberian Yupik" to distinguish it from Central Alaskan Yup'ik, the language spoken in south-western Alaska.

In this sketch phonology and orthography are not dealt with because these topics are adequately covered elsewhere.[1]

This is not intended as a classroom grammar for non-speakers who wish to learn the language, but rather it is directed at native speakers and linguists who wish to learn the grammatical structure of the Siberian Yupik language.

The information for this sketch is from Vera Oovi Kaneshiro, a native speaker from Gambell on St. Lawrence Island. Though the information is generally valid for other areas where the language is spoken (Savoonga and Siberia) a few things probably are unique to Gambell, in particular the interpretation of the demonstratives (Sec. III 4).

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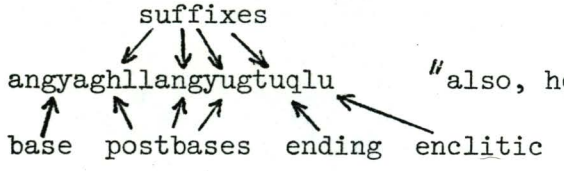
1 Krauss, Michael E., "St. Lawrence Island Eskimo Phonology and Orthography", Linguistics 152, May 15, 1975

II. Morphology

1) Structure of a word

Except for a limited number of uninflectable words, a Siberian Yupik word consists of a "base" or "stem", followed by zero, one or more "postbases", followed by one "ending", followed by zero, one or more "enclitics". The postbases and endings together are called "suffixes". A base with one or more postbases is called an "expanded base".

For example,



"also, he wants to acquire a big boat"

Generally speaking, the base contains the kernel of the meaning of the word, while the postbases elaborate this meaning. The ending contains grammatical information such as number, person, case or mood. Enclitics, if any, express the speakers attitude toward what he is saying.

Excluding uninflectable words (which are conjunctions, adverbs, interjections, etc.) bases are either nominal or verbal, though many can be both. Postbases are also either nominal or verbal, and select nominal or verbal bases or expanded bases to attach to. Thus there are four kinds of postbases:

(1) those which elaborate nominals, leaving them nominals

(2) those which verbalize nominals

(3) those which elaborate verbals, leaving them verbals

(4) those which nominalize verbals

Nominal endings attach only to nominal bases and expanded bases, while verbal endings attach only to verbal bases and expanded bases.

In the above example angyagh/ is a nominal stem meaning "boat". -ghllag/ is a noun-elaborating postbase meaning "big" so that angyaghllag/ is a nominal expanded stem meaning "big boat". -nge/ is a verbalizing postbase meaning "to acquire", so that angyaghllange/ is a verbal expanded postbase meaning "to acquire a big boat". $\sim_f$yug/ is a verb-elaborating postbase meaning "to want" so that angyaghllangyug/ means "to want to acquire a big boat". The verbal ending $\sim_f^{(t)}_{(g)}$uq is indicative mood intransitive third person singular, so that angyaghllangyugtuq is the statement, "he, she or it wants to acquire a big boat". =llu is an enclitic meaning "also".

As a word is assembled, changes in sound and consequently in spelling, generally occur at the junctures between the parts of the word. These changes follow rules which will be described in the following pages. In the discussion above concerning angyaghllangyugtuqlu, the various symbols "/", "-", "$\sim_f$", "( )", and "=" have to do with these rules, and these symbols are also discussed in the following pages.

2) Morphophonemics

a) Stem termination patterns (classes)

Stems are the abstract combining forms that underly actual words. Stems will be distinguished from words by marking the former with a slash, "/". Stems may or may not look identical to the corresponding word.

All stems, either nominal or verbal fit into one of the following classes:

(1) stems ending in a single "prime" vowel (that is a vowel other than e)

noun examples: nuna/ "land", pana/ "spear", siku/ "ice"

verb examples: qiya/ "to cry", ifla/ "to lose or be lost"

(2) stems ending in two (prime) vowels.

noun examples: puu/ "handle", kii/ "wound"

verb examples: avii/ "for one's ears to ring", aghnau/[1] "to be a woman"

(3) stems ending in e not preceded by t.

noun examples: neqe/ "food", tume/ "footprint"

verb examples: neghe/ "to eat", kuuve/ "to spill", taaqe/ "to quit"

(4) stems ending in te.

those where a consonant (fricative specifically) precedes te.

noun examples: yughaghte/ "preacher", riigte/ "den, lair"

verb examples: ingaghte/ "to lay down"

those where a vowel precedes te.

noun examples: ggute/ "tooth", sigute/ "ear"

verb examples: kaate/ "to arrive", tuqute/ "to kill"

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[1]Note that stems can contain combinations of vowels not permitted in the actual word.

An important subclass of stems ending in vowel followed by te, consists mostly of verb stems which are the result of expansion by a negative postbase. They will be marked by "°" following the te. For example, neghenghite°/ "to not eat". In several important respects these stems behave different than others ending in vowel followed by te.

(5) stems ending in "weak" gh. (The reason for the term "weak" will be explained later).

No verb stems end in weak gh.

Most noun stems which end in a single prime vowel followed by gh are in this category, for example: qayagh/ "kayak", aghnagh/ "woman", qikmigh/ "dog", uqugh/ "blubber". (Those few noun stems which end this way but nevertheless do not have weak gh, are marked with "*").

(6) stems ending in a "strong" fricative.

This category includes all stems ending in fricative[1] except for those that end in weak gh. That is:

(a) all verb stems ending in a fricative; for example: qavagh/ "to sleep", mayugh/ "to climb", ategh/ "to go down",

(b) noun stems ending in a single prime vowel followed by and marked with "*"; for example: afsengagh*/ "vole, mouse"

(c) noun stems ending in g; for example: savig/ "knife".

(d) noun stems ending in a fricative preceded by e or by two prime vowels; for example: kiiw/ "river", naghqwaagh/ "bone", ategh/ "bone", kameg/ "boot"

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[1] In fact, the only fricatives that stems end in are the front and back, labialized and unlabialized velars: g, gh, w, ghw.

b) Changes to be made when the Ø ending is attached to a stem.

The Ø ending is the ending which changes the stem of a noun into the common form of that noun which is used for naming.

This ending acts in the following way (where "#" means "end of a word").

(1) e# → a, except that te following a vowel at the end of a stem can become n optionally unless this would result in a monosyllabic word. examples: neqe/ → neqa "food", riigte/ → riigta "den", sigute/ → sigun or siguta "ear", ggute/ → gguta "tooth" (not ggun)

(2) gh# → q example: qayagh/ → qayaq "kayak"

(3) g# → k example: ungag/ → ungak "whisker"

(4) w# → kw example: kiiw/ → kiikw "river"

(5) ghw# → qw example: qiighw/ → qiiqw "grey hair"

(6) a prime vowel at the end of a stem remains the same.

In summary, stem-final e is generally lowered to a and stem-final fricative is changed to the corresponding stop.

c) Suffixation patterns

When a suffix is attached to a stem, or to a stem already expanded by other suffixes, changes generally occur at or near the boundary between the two. These changes are determined by the configuration of sounds at the end of the stem (the class of the stem) and by rules which are "built in" to the particular suffix being attached. To some extent the configuration of sounds at the beginning of the suffix reveals these rules, but not completely. For that reason, suffixes are listed preceded by symbols (described below) which indicate what changes are to be made.

A suffix may have several such symbols.

(1) symbols indicating various treatment of stem-final consonants

"-" indicates that the suffix drops all stem-final consonants. These are called "consonant dropping suffixes". An example is -pig/ "genuine". qayagh/ "kayak" and this suffix give qayapig/, hence qayapik "genuine kayak".

A consonant dropping suffix which begins with a front velar will use the corresponding back velar if the stem to which it is being attached ends in a back velar. For example, attaching the suffix ~-ka "my" to nuna/, atkug/ and qayagh/ gives nunaka "my land", atkuka "my parka", but qayaqa "my kayak" (not qayaka). Similary a consonant dropping suffix which begins with a back velar will use the corresponding front velar if the stem ends in a front velar.

"$-_w$" indicates that the suffix drops only weak gh from stems, (hence the label "weak"). These are called "weak gh dropping suffixes"

For example, when the suffix -$_{w}$mun "to" is attached to the stems qayagh/ and afsengagh*/ the results are qayamun "to the kayak" and afsengaghmun "to the mouse" because in the first stem the gh is weak while in the second stem the gh is strong, as the asterisk indicates.

":" indicates that a gh is to be dropped at the boundary between stem and suffix if and only if the gh is flanked by single vowels, where the vowel preceding the gh is a prime vowel, and this process is to occur after the suffix is added and after the process of e-insertion (Sec. II2e) has occured. Such suffixes are said to be "intervocalic gh dropping". For example, adding the suffix ~:(ng)a[1] "his" to the stems qayagh/, ungag/, and naghqwaagh/ gives qayaa "his kayak", ungaga "his whisker", and naghqwaagha "his bone", In the first case gh is dropped because after the suffix is added one gets first qayagha with gh flanked by single vowels. In the second case, even though g is flanked by single vowels, it is not dropped because this type of suffix drops only gh in this position, and in the third case gh is not dropped because it is preceded by two vowels rather than by a single vowel.

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[1]The symbol "~" and the ng in parentheses will be explained later. They are irrelevant for these examples.

(2) symbols indicating treatment of e on stems.

"$\sim_f$" indicates that the suffix drops final e from stems.

"$\sim_{sf}$" indicates that the suffix drops semi-final e from stems.

A semi-final e is one which immediately precedes a final consonant, for example, the e in the stem ategh/ "name".

"~" indicates that the suffix drops both final and semi-final e.

These suffixes are said to be "e dropping" in contrast to "final e dropping" and "semi-final e dropping" suffixes (above).

(3) symbols indicating treatment of final te on stems.

"↓" indicates that the suffix drops the final te from the stem completely without leaving a trace.

"→" indicates that the suffix alters te. Suffixes so marked are said to be "te changing" in contrast to "te dropping" suffixes (above). In general te changing suffixes which begin with i change te to s, while te changing suffixes which begin with a voiced continuant will replace both te and the voiced continuant with the corresponding voiceless continuant, For example, adding the suffix → -lghii to the stem kaate/ gives kaallghii "the one who is arriving".

"+" indicates that the suffix merely adds onto the stem without making any changes. These are called "retaining suffixes".

A letter or letters in parentheses will be used only with stems that terminate in a certain way. In general,

(g) is used only with stems ending in two vowels

(u) is used only with stems that do not end in prime vowels

(ng) is used only with stems ending in a vowel

(t) is used only with stems ending in a fricative or in ghe

Exceptions to this general pattern will be noted as they occur.

d) e-hopping

Whenever a suffix drops final or semi-final e (that is, whenever a suffix is marked by "~", "~$_f$", or "~$_{sf}$"), and the stem is of the form #(C)V'Ce(C)/ then V' is doubled. Here, "#" indicates the beginning of the stem, "C" indicates a consonant, parentheses around "C" indicate that a consonant need not be present for the process to occur, while "V'" indicates a prime vowel (a, i, or u). For example:

tume/ and ~:(ng)a give tuumnga "his footprint",

ategh/ and ~:(ng)a give aatgha "his name",

but, tepe/ and ~:(ng)a give tepnga "its odor", where e is not doubled because it is not a prime vowel,

and, sigute/ and ~:(ng)a give sigutnga "his ear", where u is not doubled because the stem has too many syllables to fulfill the conditions for e-hopping.

e) e-insertion

e is inserted to break clusters of three consonants within a word[1] or two consonants at the beginning or end of a word, clusters which may arise as a word is assembled.

e-insertion occurs after the process of e-dropping (~), if this process is called for, but before the process of intervocalic gh-dropping (:), if this process is called for.

Voicelessness due to the contiguity of a continuant and a voiceless consonant carries over an inserted e, but only from left to right.

Some examples,

aghveliigh/ and $\sim_{sf}$:lta give aghveliighlta but ghlta is a three consonant cluster, so an e is inserted giving aghveliighelta "let's cook whale".

mayugh/ and $\sim_{sf}$:lta give mayughlta hence mayughelta by e-insertion, hence mayuelta by intervocalic gh dropping, hence mayuulta "let's go up" by vowel assimilation (Sec. 2h).

aghqe/ and $\rightarrow\sim_{f}$vik give aghqfik hence aghqefik "place to make offerings", where v is devoiced to f by the adjacent stop q and this voicelessness remains even after q and f are separated by the e which has been inserted to break the three consonant cluster ghqf.

yug/ and $\sim_{sf-w}$:t give yugt hence yuget "persons, people", and here g does not get devoiced even though in the intermediate form it was next to the stop t, the reason being that voicelessness does not carry from right to left over an inserted e.

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[1] The general pattern is that e is inserted in such a way as to preserve morphemes, when e is inserted to break a three consonant cluster. In some cases, three consonant clusters are permitted, for example see Sec. III 2a

f) blockage of e-dropping if that would lead to an unpermitted cluster

If a suffix directs that final or semi-final e be dropped, but dropping this e from a particular stem when adding that consonant would lead to an unpermitted cluster, then that e will not be dropped. An unpermitted cluster here may be a cluster of two like consonants, or ghk, qk or nngh[1]. Furthermore, if the unpermitted cluster in question is ghk, qk or kk, then not only is e not dropped, but also g is inserted after e.

Some examples,

tume/ and ~$_f$-$_v$mi give tumemi "in the footprint" where e is not dropped because the cluster mm is not permitted. Compare this to tume/ and ~$_f$-$_w$ni giving tuumni "in the footprints" where e is dropped and e-hopping occurs to lengthen the u.

kannegh/ and ~:(ng)ite/ give kaanneghite/ as in kaanneghituq "he doesn't arrive", where semi-final e is not dropped because the cluster nngh is not permitted.

neghe/ and ~-kaa/ give neghegkaa/ as in neghegkaaguq "he ate", where e is kept and g inserted after it to prevent the cluster ghk.

The final e of a noun stem ending in Cte will not be dropped. Thus, adding ~$_f$-$_w$meng to the stem yughaghte/ gives yughaghtemeng "from the preacher". If the e were dropped and then re-inserted to break the resulting cluster, the result would be yughaghtemmeng (voiceless m due to stop t), but this is not the case.

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1 Quite possibly there are other unpermitted clusters.

g) other rules

(1) ty ⟶ s and tz ⟶ s

For example, ingaghte/ and ∿$_{f}$yug/ give ingaghtyug/ hence ingaghsug/ as in ingaghsugtuq "he wants to lay down". Also, ingaghte/ and ∿$_{f}$(t)zin give ingaghtzin hence ingaghsin "are you laying down?"

(2) If, in the process of assembling a word, a continuant (fricative or nasal) is placed immediately after a voiceless consonant (stop or voiceless fric.), then that continuant becomes voiceless. Also, if a fricative (though not a nasal) is placed immediately before a voiceless consonant, then that fricative becomes voiceless, (though this does not necessarily happen, as we shall see below, if the fricative in question precedes the voiceless consonant due to the process of e dropping.)

For the most part the undoubling rules in the orthography take care of this situation automatically.

For example, neghyug/ and ∿$_{sf}$(g)aa give neghyugaa "he wants to eat it", while neghyug/ and ∿$_{f}\overset{(g)}{\underset{(t)}{}}$uq give neghyugtuq "he wants to eat". In the first example g is voiced but in the second example g is voiceless being next to the stop t.

However the voiced fricatives v, z, y, and w must be replaced by the symbols for their voiceless counterparts (f, s, s, and wh respectively) to show that these fricatives are voiceless.

For example, taaqe/ and →∿$_{f}$vik give taaqvik and this must be rewritten taaqfik "time to quit".

As mentioned above, if a fricative precedes a voiceless consonant due to the process of e dropping, then that fricative is not automatically devoiced, though it often may be devoiced optionally.

For the voiced fricatives v, z, y, and w this presents no problem.

For example, tuye/ and ∿-ka give tuuyka "my shoulder", and here the voiced fricative y may be optionally replaced with its voiceless counterpart s. Thus also tuuska "my shoulder".

However, in order to indicate that one of the fricatives l, g, or gh is voiced even though it immediately precedes a voiceless consonant, the two must be separated by some device such as an apostrophe.

For example, kugegh/ and ∿-ka give kuug'qa "my older brother" where the apostrophe indicates that g is voiced.

As another example, igaleg/ and ∿-ka give igal'ka "whether I have a book!" Compare this to igalka "whether I write (well)", which comes from igalleg/ and ∿-ka.

Again, kugegh/ and -ghhaq give kuug'ghhaq "a small older brother" where g is voiced even though it immediately precedes the voiceless fricative ghh.

h) vowel assimilation

The following rules are to be applied in the given order after the word has been assembled.

(1) A prime vowel absorbs a preceding e.

For example, age/ and +u/ give agu/ as in agumi "in the one over, there".

(2) A prime vowel assimilates a following e (that is, ae → aa, ie → ii, and ue → uu).

For example, afsengagh*/ and ~$_{sf}$−$_{w}$:t give afsengaght, hence afsengaghet by e-insertion, hence afsengaet by intervocalic gh dropping, hence afsengaat "mice" by this rule.

(3) i assimilates adjacent a or u (so that ai → ii, ia → ii, ui → ii, and iu → ii).

For example, qikmigh/ and ~:(ng)a give qikmigha, hence qikmia by intervocalic gh dropping, hence qikmii "his dog" by this rule. (Compare, qayagh/ and ~:(ng)a giving qayaa "his kayak")

(4) a assimilates adjacent u (so that au → aa, and ua → aa).

For example, uqugh/ and ~:(ng)a give uqugha, hence uqua by intervocalic gh dropping, hence uqaa "its blubber".

i) labialization of velars due to vowel assimilation

A front or back velar stop or continuant will be replaced by the corresponding labialized velar if a vowel u next to the velar in question has been assimilated by a prime vowel on the other side of it. In symbols, if C is the velar in question and C^W is its labialized counterpart, then CuV' $\longrightarrow$ $C^WV'V'$, and V'uC $\longrightarrow$ $V'V'C^W$. For example,

sikugh/ and ~:(ng)a give sikugha, hence sikua by intervocalic gh dropping, hence sikwaa by vowel assimilation and this rule.

siku/ and ~(ng)uaq give sikunguaq, hence sikungwaaq "pretend ice" (compare sikungaaq "it is frozen").

qikmiu/ and +(g)i give qikmiugi, hence qikmiiwi "be a dog!" (compare aviigi "have a ringing of the ears!").

This rule does not apply to the configurations ukuV' or uquV', nor to V'uCu. In these cases vowel assimilation takes place without velar labialization. (This point is subject to variation). Thus,

tukugh/ and ~:(ng)i give tukughi, hence tukui, hence tukii "his hosts" (not tukwii).

uqugh/ and ~:(ng)a give uqugha, hence uqua, hence uqaa "its blubber" (not uqwaa).

qikmiu/ and $\sim_{f\frac{(g)}{(t)}}$uq give qikmiuguq, hence qikmiiguq "it is a dog" (not qikmiiwuq).

j) labialization of consonants other that velars

There are several stems in Siberian Yupik that end in w or ghw. When a consonant dropping suffix is attached to one of these stems, the labialization is transferred to the first letter of the suffix even if this letter is not a velar. The orthography at present does not provide a standard way to indicate such labialization, However in this sketch we shall indicate it by placing an apostrophe before the labialized non-velar.

For example,

aaw/ and -lek give aa'lek "one having blood" (the l is labialized).

Compare,

aaw/ and ~$_{f}$luni give aawluni "bleeding" (labialized g, that is w, precedes non-labialized l).

amaa/ and -lek give amaalek "one having wolves" (non-labialized l).

Other examples,

kiiw/ and -mta give kii'mta "of our rivers" (labialized m).

kii/ and -mta give kiimta "of our wounds" (non-labialized m).

Also,

qiighw/ and -put give qii'put "our grey hairs" (labialized p).

III. Nominals

1) general remarks

Noun endings indicate the number and case of the noun, and whether or not the noun is possessed. If the noun is possessed, the ending indicates the number and person of the possessor.

Number, in Siberian Yupik, is singular (one), dual (two) or plural (three or more). Person is first person (the speaker, "I", "me", "us"), second person (the one spoken to, "you"), third person (the thing or person, other than speaker or one spoken to, being spoken about, "he", "she", "it", "they"). In addition there is a reflexive third person (abreviated "3R") which refers back to the subject of the main verb of the sentence.

We shall use the abreviations "s", "d" and "p" for singular, dual and plural, respectively. A small subscript "2" after the English words, "we", "you" and "they" indicates that the dual is meant, as in "we_2". The English word "you" indicates singular while "you_{pl}" indicates plural and "you_2" dual, as just noted. Lastly, since Siberian Yupik has no special apparatus to indicate gender, the third person singular will generally be translated as "he" rather than the more cumbersome though more precise "he, she, or it".

2) Noun cases and their uses

a) absolutive

The absolutive case has two uses in a sentence: (1) subject of an intransitive verb (Sec.IV1), and (2) object of a transitive verb (Sec.IV1). The absolutive is also the "naming" form of the noun which is given in answer to the question "what is that called?".

Examples: (with absolutive noun underlined)

(1) Aghnaq neghaquq. "The woman is eating." (here the absolutive noun is the subject of an intransitive verb)

(1) Qikmiqa qavaghtuq. "My dog slept." (the absolutive noun here has a 1st person singular possessor)

(2) Neghaqaa kayu. "He eats the fish." (here the absolutive noun is the object of a transitive verb)

The chart on the following page shows all the absolutive endings. The plural and dual forms for 1st, 2nd, or 3R possessor are evidently compounded from the singular forms for 1st, 2nd or 3R possessor and the unpossessed plural and dual endings. Thus the n in the 1st person singular-to-plural possessed ending $\sim_{sf}$-$_{w}$:nka is from the unpossessed plural ending $\sim_{sf}$-$_{w}$:t . In the case of the dual this process of compounding is readily apparent, but in the plural the process is less apparent.

Absolutive Case Noun Endings

NUMBER AND PERSON OF POSSESSOR			NUMBER OF NOUN ITSELF: sing.	plur.	dual
unpossessed			∅	$\sim_{sf}{}^{-}{}_{w}$:t	$\sim_{sf}{}^{-}{}_{w}$:k
	3rd person	s	~:(ng)a	~:(ng)i	$\sim_{sf}{}^{-}{}_{w}$:kek
		p	~:(ng)at	~:(ng)it	$\sim_{sf}{}^{-}{}_{w}$:gket
		d	~:(ng)ak	~:(ng)ik	$\sim_{sf}{}^{-}{}_{w}$:gkek
	1st person	s	~-ka	$\sim_{sf}{}^{-}{}_{w}$:nka	$\sim_{sf}{}^{-}{}_{w}$:gka
		p	+put[1]	-put	$\sim_{sf}{}^{-}{}_{w}$:gput
		d	+pung[1]	-pung	$\sim_{sf}{}^{-}{}_{w}$:gpung
	2nd person	s	$\sim_{sf}{}^{-}{}_{w}$:n	$\sim_{sf}{}^{-}{}_{w}$:ten	$\sim_{sf}{}^{-}{}_{w}$:gken
		p	+si[2]	-si	$\sim_{sf}{}^{-}{}_{w}$:gsi
		d	+tek[3]	-tek	$\sim_{sf}{}^{-}{}_{w}$:gtek
	3R person	s	-ni	-ni	$\sim_{sf}{}^{-}{}_{w}$:gni
		p	+teng[3]	-teng	$\sim_{sf}{}^{-}{}_{w}$:gteng
		d	+tek[3]	-tek	$\sim_{sf}{}^{-}{}_{w}$:gtek

Notes:

(1) After a vowel ending stem, the p of these endings is changed to the corresponding voiced fricative v. So nuna/ and +put give nunavut "our land". Compare this to nuna/ and -put giving nunaput "our lands".

(2) After a vowel ending stem, the s of this ending is changed to z. So nuna/ and +si give nunazi "your$_{pl}$ land". Compare this to nuna/ and -si giving nunasi "your$_{pl}$ lands".

(3) After a vowel ending stem, the t of these endings is changed to y. So nuna/ and +tek give nunayek "your$_{2}$ land". Compare this to nuna/ and -tek giving nunatek "your$_{2}$ lands".

The following table of words based on the stem angyagh/ "boat" follows the arrangement of the table of endings on the preceding page, and should serve to illustrate how that arrangement functions.

angyaq boat	angyat boats	angyak boats$_2$
angyaa his boat	angyii his boats	angyakek his boats$_2$
angyaat their boat	angyiit their boats	angyagket their boats$_2$
angyaak their$_2$ boat	angyiik their$_2$ boats	angyagkek their$_2$ boats$_2$
angyaqa my boat	angyanka my boats	angyagka my boats$_2$
angyaghput our boat	angyaput our boats	angyagput our boats$_2$
angyaghpung our$_2$ boat	angyapung our$_2$ boats	angyagpung our$_2$ boats$_2$
angyan your boat	angyaten your boats	angyagken your boats$_2$
angyaghsi your$_{pl}$ boat	angyasi your$_{pl}$ boats	angyagsi your$_{pl}$ boats$_2$
angyaghtek your$_2$ boat	angyatek your$_2$ boats	angyagtek your$_2$ boats$_2$
angyani his own boat	angyani his own boats	angyagni his own boats$_2$
angyaghteng their own boat	angyateng their own boats	angyagteng their own boats$_2$
angyaghtek their$_2$ own boat	angyatek their$_2$ own boats	angyagtek their$_2$ own boats$_2$

The following examples illustrate the suffixation patterns of several of these absolutive endings.

$\sim_{sf}{}^{-}{}_{w}$:t unpossessed plural absolutive ending

class	stem	with suffix	translation
1	nuna/	nunat	lands
2	puu/	puut	handles
3	tume/	tumet	footprints
4	sigute/	sigutet	ears
5	aghnagh/	aghnat[1]	women
6	afsengagh*/	afsengaat[2]	mice, voles
	atkug/	atkuget[3]	parkas
	naghqwaagh/	naghqwaaghet	bones
	ategh/	aatghet[4]	names

notes:

(1) the final weak gh is dropped from the stem when the suffix is added ($-_{w}$).

(2) the final strong consonant is retained giving afsengaght hence afsengaghet by e-insertion (Sec.II2e), hence afsengaet by intervocalic gh dropping (:), hence afsengaat by vowel assimilation (Sec.II2h).

(3) the final strong consonant is retained and e inserted

(4) the final strong consonant is retained, and the semi-final e is dropped ($\sim_{sf}$). The a is doubled by e-hopping (Sec.II2d). Then, e is inserted to break the cluster at the end of the word.

∿:(ng)a 3s-s (third person singular possessor, singular thing possessed) absolutive

class	stem	with suffix	translation
1	nuna/	nunanga	his land
2	puu/	puunga	its handle
3	neqe/	neqnga	his food
	tume/	tuumnga[1]	his footprint
4	sigute/	sigutnga	his ear
	yughaghte/	yughaghtenga[2]	his preacher
5	aghnagh/	aghnaa[3]	his woman
	qikmigh/	qikmii[4]	his dog
	sikugh/	sikwaa[5]	his needle
	uqugh/	uqaa[6]	its blubber
6	atkug/	atkuga	his parka
	naghqwaagh	naghqwaagha	his bone
	ategh/	aatgha[7]	his name
	afsengagh*/	afsengaa	his mouse

Notes:

(1) final e dropped (∿) and u lengthened by e-hopping

(2) final e dropping is blocked to prevent an unpermitted cluster (Sec. II2f)

(3) aghnagh/ and ∿:(ng)a give aghnagha hence aghnaa by intervocalic gh dropping (:).

(4) qikmigha goes to qikmia by intervocalic gh dropping (:), hence to qikmii by vowel assimilation.

(5) sikugha goes to sikua by intervocalic gh dropping, hence to sikwaa by vowel assimilation and velar labialization (Sec. II2i).

(6) uqugha goes to uqua by intervocalic gh dropping, hence to uqaa by vowel assimilation. q is not labialized since it is preceded by u.

(7) semi-final e dropped (∿), and a lengthened by e-hopping.

~-ka 1s-s (first person singular possessor, singular thing possessed) absolutive

class	stem	with suffix	translation
1	nuna/	nunaka	my land
2	kii/	kiika	my wound
3	tepe/	tepka	my odor
	iye/	iiyka or iiska[1]	my eye
	tume/	tuumka	my footprint
4	sigute/	sigutka	my ear
5	qayagh/	qayaqa[2]	my kayak
6	atkug/	atkuka	my parka
	ategh/	aatqa	my name

notes:

(1) e is dropped (~) and i is doubled in accordance with e-hopping. y may be devoiced due to its proximity to the voiceless consonant k (Sec. II2g), and the voiceless counterpart of y (as well as of z) is s.

(2) because the stem ends in the back velar gh, the k of this suffix is replaced by the back velar stop q.

+put 1p-s (first person plural possessor, singular thing possessed), and
-put 1p-p (first person plural possessor, plural thing possessed) absolutive

class	stem	with suffix +put	with suffix -put	translations
1	nuna/	nunavut[1]	nunaput	our land, lands
2	puu/	puuvut	puuput	our handle, handles
3	tume/	tumevut	tumeput	our footprint, --s
4	yughaghte/	yughaghtevut	yughaghteput	our preacher, --s
5	angyagh/	angyaghput	angyaput	our boat, boats
6	atkug/	atkugput	atkuput	our parka, parkas
	ategh/	ateghput	ateput	our name, names

notes:

(1) with a vowel ending stem, +put changes to +vut, but -put doesn't change.

When absolutive endings (or other case endings) having a third person possessor, are added to anatomical or plant-part stems ending in qugh/ the result is somewhat different from what the chart indicates.

(1) Vqugh/ and ngqugh/ plus the ending ∿:(ng)a give Vqghwa and ngqghwa respectively. Thus from uyaqugh/ we have uyaqghwa "his neck", and from alangqugh/ we have alangqghwa "his ring finger". This is one of the few ways that permissible three-consonant clusters can arise, the cluster in alangqghwa being ng-q-ghw. This cluster is not broken by an inserted e as is the general case when three-consonant clusters arise.

(2) Cqugh/ (where C is not ng) plus the ending :(ng)a gives Cqwa. Thus from iqelqugh/ we have iqelqwa "his little finger".

(3) The kugh/ in the stem putukugh/ follows the pattern of Vqugh/. see (1) above. However, the gh is not labialized due to u preceding k. Thus, putukgha "his big toe", rather than putukaa or putukghwa.

(4) The stem uqugh/ "blubber", though in a sense an anatomical stem, doesn't follow this pattern, so the possessed form is uqaa.

b) relative

The relative case is used for (1) the subject of a transitive verb (Sec. IV1) or for (2) the possessor of a possessed noun. In this second use, the possessed noun must be marked for third person possessor in number agreeing with that of the possessing noun. For example, if the possessing noun is relative dual, then the possessed down must have an ending which indicates a third person dual possessor.

Examples:

(1) Aghnam neghaqaa. "The woman is eating it."

(2) aghnam atkuga "the woman's parka"

(2) naama atkuga "my mother's parka"

(2) aghnam naangan atkuga "the woman's mother's parka" (the woman possesses the mother who possesses the parka)

(3) naamta atkugit "our mothers's parkas"

In the chart on the following page one will notice that the first, second and third reflexive possessor endings for the relative case are based on the corresponding absolutive endings fused with the singular unpossessed relative ending $\sim_{sf}$-$_{w}$:m . Thus, $\sim_{f}$-$_{w}$ma is based on the corresponding absolutive ending -ka, and $\sim_{sf}$-$_{w}$:m.

Relative Case Noun Endings

NUMBER AND PERSON OF POSSESSOR			NUMBER OF NOUN ITSELF: sing.	plur.	dual
unpossessed			$\sim_{sf}$-$_{w}$:m^{l}	$\sim_{sf}$-$_{w}$:t	$\sim_{sf}$-$_{w}$:k
	3rd person	s	∿:(ng)an	∿:(ng)in	$\sim_{sf}$-$_{w}$:gkenka
		p	∿:(ng)ita	∿:(ng)ita	$\sim_{sf}$-$_{w}$:gkenka
		d	∿:(ng)ita	∿:(ng)ita	$\sim_{sf}$-$_{w}$:gkenka
	1st person	s	$\sim_{f}$-$_{w}$ma^{l}		$\sim_{sf}$-$_{w}$:gma
		p	-mta		$\sim_{sf}$-$_{w}$:gemta
		d	-mtung		$\sim_{sf}$-$_{w}$:gemtung
	2nd person	s	-gpek		$\sim_{sf}$-$_{w}$:gpek
		p	-gpesi		$\sim_{sf}$-$_{w}$:gpesi
		d	-gpetek		$\sim_{sf}$-$_{w}$:gpetek
	3R person	s	$\sim_{f}$-$_{w}$mi		$\sim_{sf}$-$_{w}$:gmi
		p	$\sim_{f}$-$_{w}$meng		$\sim_{sf}$-$_{w}$:gmeng
		d	$\sim_{f}$-$_{w}$meng		$\sim_{sf}$-$_{w}$:gmeng

Note:

(1) weak gh dropping suffixes (-$_{w}$) are of two types:

(i) those which consist of a single consonant or start with a consonant cluster (for example, $\sim_{sf}$-$_{w}$:t, $\sim_{sf}$-$_{w}$:m, $\sim_{sf}$-$_{w}$:nka)

(ii) those which start with a consonant followed by a vowel (for example, $\sim_{f}$-$_{w}$ma, $\sim_{f}$-$_{w}$meng)

Group (i) drops semi-final e ($\sim_{sf}$), and intervocalic gh (:).
Group (ii) drops final e ($\sim_{f}$).

Compare: stem	with suffix $\sim_{sf}$-$_{w}$:m	with suffix $\sim_{f}$-$_{w}$ma
iye/	iyem "of the eye"	iiyma "of my eye"
afsengagh*/	afsengaam "of the mouse"	afsengaghma "of my mouse"
ategh/	aatghem "of the name"	ateghma "of my name"

$\sim_f$-$_w$ma 1s-s/p (first person singular possessor, singular or plural thing possessed) relative

class	stem	with suffix	translation
1	nuna/	nunama	of my land(s)
2	kii/	kiima	of my wound(s)
3	iye/	iiyma[1]	of my eye
	neqe/	neqma[2]	of my food(s)
	tume/	tumema[3]	of my footprint(s)
4	sigute/	sigutma	of my ear
5	qayagh/	qayama[4]	of my kayak(s)
6	afsenghagh*/	afsenghaghma[5]	of my mouse (mice)
	atkug/	atkugma	of my parka(s)
	ategh/	ateghma	of my name(s)
	naghqwaagh/	naghqwaaghma	of my bone(s)

notes:

(1) stem final e is dropped ($\sim_f$), and i is doubled by e-hopping.

(2) stem final e is dropped, but the first e in the stem cannot be doubled.

(3) dropping of stem final e is blocked to prevent an unpermitted cluster of like consonants (Sec. II2f), consequently e-hopping doesn't occur and u is not doubled.

(4) stem final weak gh is dropped (-$_w$).

(5) stem final strong gh is not dropped.

c) ablative-modalis case

This case is used to indicate:

(1) the indefinite object of an intransitive verb

(2) the point of physical or temporal origin

(3) further information about a noun expanded by a verbalizing postbase

(4) the subject matter of speaking, thinking, etc.

(5) the thing given with verbs of giving

(6) the object of a comparison

(7) the instrument used to perform an action

Examples:

(1) Neghaquq kayumeng. "He is eating a bullhead" (compare the transitive form: Neghaqaa kayu. "He is eating the bullhead.")

(2) Kaatuq naayvameng. "He came from the lake."

(3) Qikmilguuq pinilriimeng. "He has a good dog."

(4) Ungipaataa angagmineng. "He told him about his uncle."

(5) Iqallugmeng tuunumaanga. "He gave me some fish."

(6) Aangunga anngamneng. "I'm taller than my older brother."

(7) Aghnaq segguq ulaaghmeng. "The woman is cutting with a knife."

The ablative-modalis case and the remaining cases (terminalis, localis, vialis and aequalis) do not serve as subjects and objects as do the absolutive and relative. They are sometimes called the "prepositional cases", and the absolutive and relative are called the "syntactical cases". These prepositional cases do in fact serve much the same function as prepositions in English.

The possessed/endings for the prepositional cases are formed by fusing the unpossessed plural ending of each prepositional case to the possessed absolutive third person or relative first, second or third reflexive person endings.

Ablative-Modalis Case Noun Endings

NUMBER AND PERSON OF POSSESSOR			NUMBER OF NOUN ITSELF: sing.	plur.	dual
unpossessed			$\sim_{f}$-$_{w}$meng	$\sim_{f}$-$_{w}$neng	$\sim_{sf}$-$_{w}$:gneng
	3rd person	s	∿:(ng)aneng	∿:(ng)ineng	$\sim_{sf}$-$_{w}$:gkeneng
		p	∿:(ng)itneng	∿:(ng)itneng	∿:(ng)itneng
		d	$\sim_{sf}$-$_{w}$:gkeneng	∿:(ng)itneng	∿:(ng)itneng
	1st person	s	-mneng		$\sim_{sf}$-$_{w}$:gemeng
		p	-mnneng		$\sim_{sf}$-$_{w}$:gemnneng
		d	-mtegneng		$\sim_{sf}$-$_{w}$:gemtegneng
	2nd person	s	-gpe(g)neng		$\sim_{sf}$-$_{w}$:gpe(g)neng
		p	-gpesineng		$\sim_{sf}$-$_{w}$:gpesineng
		d	-gpetegneng		$\sim_{sf}$-$_{w}$:gpetegneng
	3R person	s	$\sim_{f}$-$_{w}$mineng		$\sim_{sf}$-$_{w}$:gmineng
		p	$\sim_{f}$-$_{w}$meggneng		$\sim_{sf}$-$_{w}$:gmeggneng
		d	$\sim_{f}$-$_{w}$meg(te)neng		$\sim_{sf}$-$_{w}$:gmeg(te)neng

d) localis

The localis case is used for, (1) the place at which the action or state described by the verb occurs, (2) the object of comparison when the verb is expanded by the postbase -nghu/.

Examples:

(1) Neghtuq angyamini. "He ate in his own boat."

(2) Aangenghuuq anngamini. "He is bigger than his older brothers."

e) terminalis

The terminalis case is used for, (1) the destination of a directed action, (2) the subject of the underlying verb if this underlying verb is being treated as transitive and being expanded by a compound-verbal postbase (Sec. IV6)

Examples:

(1) Nemnun kaasama neqaghaqa. "When I reached my home I remembered it."

(2) Yugem anngamnun neghesqaa kayu. "The man asked my brother to eat the fish." (anngamnun is the subject of the underlying verb neghe/ which is transitive having kayu as its object)

The endings of the localis (or locative) and terminalis cases are the same as those of the ablative-modalis case except that the localis case has mi and ni, and the terminalis case has mun and nun in place of the meng and neng at the end of the ablative modalis case endings. For example, the first person singular possessor, singular/plural possessed thing ablative-modalis of qayaq is qayamneng while the coresponding localis is qayamni and the coresponding terminalis is qayamnun.

f) vialis

The vialis case is used for, (1) route of physical or temporal motion, (2) mean by which something is done, (3) a part of a whole towards which action (taken broadly) is directed .

Examples:

(1) Kiiwegnekun esnightunga. "I walked along the shore of the river." ("river" is customarily referred to with the dual even though one river is meant)

(2) Angyaqun angyaghtuq. "He went by boat."

(3) Qikmim amqeghtaanga tallimkun. "The dog bit me on my arm."

Vialis Case Noun Endings

NUMBER AND PERSON OF POSSESSOR			NUMBER OF NOUN ITSELF: sing.	plur.	dual
unpossessed			$\sim_{f-w}$kun[1]	$\sim_{sf-w}$:tgun	$\sim_{sf-w}$:gnekun
	3rd person	s	∿:(ng)akun	∿:(ng)ikun	$\sim_{sf-w}$:gkenkun
		p	∿:(ng)itgun	∿:(ng)itgun	∿:(ng)itgun
		d	$\sim_{sf-w}$:gkenkun	∿:(ng)itgun	∿:(ng)itgun
	1st person	s	-mkun		$\sim_{sf-w}$:gemkun
		p	-mteggun		$\sim_{sf-w}$:gemteggun
		d	-mtegnegun		$\sim_{sf-w}$:gemtegnegun
	2nd person	s	-gpegun		$\sim_{sf-w}$:gpegun
		p	-gpesigun		$\sim_{sf-w}$:gpesigun
		d	-gpetegnegun		$\sim_{sf-w}$:gpetegnegun
	3R person	s	$\sim_{f-w}$mikun		$\sim_{sf-w}$:gmikun
		p	$\sim_{f-w}$megteggun		$\sim_{sf-w}$:gmegteggun
		d	$\sim_{f-w}$megtegnegun		$\sim_{sf-w}$:gmegtegnegun

Note:

(1) When a stem ends in strong gh, that gh is retained when adding this ending, and since ghk is not a permitted cluster, the k of the ending is replaced by q

stem	stem with suffix $\sim_{f-w}$kun	translation
nuna/	nunakun	through the land
angyagh/	angyakun	through the boat
afsengagh*/	afsengaghqun	through the mouse
atkug/	atkugkun	through the parka

g) aequalis

The aequalis case is used to express similarity.

Examples:

Atamitun pinaqneghituq. "He is lazy like his father."

Sivungaghtun aqlaghanneghituq. "It is not cold like Savoonga."

Aequalis Case Noun Endings

NUMBER AND PERSON OF POSSESSOR			NUMBER OF NOUN ITSELF: sing.	plur.	dual
unpossessed			$\sim_{f-w}$tun	$\sim_{sf-w}$:stun	$\sim_{sf-w}$:gestun
	3rd person	s	~:(ng)atun	~:(ng)itun	$\sim_{sf-w}$:gketun
		p	~:(ng)itun	~:(ng)itun	~:(ng)itun
		d	$\sim_{sf-w}$:gketun	~:(ng)itun	~:(ng)itun
	1st person	s	-mtun		$\sim_{sf-w}$:gemtun
		p	-mtestun		$\sim_{sf-w}$:gemtestun
		d	-mtegestun		$\sim_{sf-w}$:gemtegestun
	2nd person	s	-gpetun		$\sim_{sf-w}$:gpetun
		p	-gpesistun		$\sim_{sf-w}$:gpesistun
		d	-gpetegetun		$\sim_{sf-w}$:gpetegetun
	3R person	s	$\sim_{f-w}$mitun		$\sim_{sf-w}$:gmitun
		p	$\sim_{f-w}$megestun		$\sim_{sf-w}$:gmegestun
		d	$\sim_{f-w}$megestun		$\sim_{sf-w}$:gmegestun

3) Personal pronouns

Personal pronouns are not used too often because the verb and noun endings take their place. However, they are used for emphasis and in places where the verb and noun endings do not give the required information (for example with comparatives, and compound-verbal postbases (Sec. IV6).

Examples:

Aanguq whangamneng. "He is bigger than me."

Elpenun neghesqaa. "He asked that you eat it."

First Person Pronouns

case	sing.	plur.	dual
abs. & rel.	whanga "I, me"	whangkuta "we, us"	whangkutung "we_2"
abl./mod.	whangamneng "from me"	whangkunneng	whangkutegneng
vialis	whangamkun "through me"	whangkutgun	whangkutegnekun
aequalis	whangamtun "like me"	whangkutestun	whangkutegemtun

(note: terminalis and localis are similar to abl/mod.)

Second Person Pronouns

abs. & rel.	elpek "you"	elpesi "you_{pl}"	elpetek "you_2"
abl./mod.	elpeneng	elpesineng	elpetegneng
vialis	elpegun	elpesigun	elpetegnekun
aequalis	elpetun	elpesistun	elpetegestun

Third Person Pronouns

abs.	ellnga "he, him"	ellngit "they"	elkek "they$_2$"
rel.	ellngan	ellngita	elkek
abl./mod.	ellnganeng	ellngitneng	elkegkeneng
vialis	ellngakun	ellngitgun	elkegkenkun
aequalis	ellngatun	ellngitestun or ellngistun	elkegkegestun

Third Reflexive Person Pronouns

abs. & rel.	ellmi "himself"	ellmeng "themselves"	ellmeng "themselves$_2$"
abl./mod.	ellmineng	ellmeggneng	ellmeg(te)neng
vialis	ellmikun	ellmegteggun	ellmegtegnegun
aequalis	ellmitun	ellmegestun	ellmegestun

4) Demonstratives

Siberian Yupik has a well developed system of "demonstrative pronouns" and "demonstrative adverbs", in contrast to English where "this" and "that" are the only demonstrative pronouns, "here" and "there" are the only demonstrative adverbs.

Siberian Yupik demonstratives are based on "demonstrative stems", all of which end in e. These stems are expanded by a variety of suffixes to give the various pronoun and adverb forms. To show how these suffixes work, the stem age/, "over there or leaving, in motion, large or lengthy", is used to give examples.

(a) The stem plus +a/ gives an "**interjectional**" form used to call someone's attention to the given area. Thus, from age/, the interjectional form is aga "over there!".

(b) The "absolutive singular pronoun" ending is ∿na. Thus, age/ and ∿na give aagna "the one over there".

(c) There ia a "singular vocative" ending, yuq, used to address someone who is in the given area. Thus, age/ and yuq give aagyuq, "you over there".

(d) "Singular pronouns in cases other than the absolutive case" are formed by attaching +u/ to the demonstrative stem, and following this by the ordinary non-absolutive unpossessed singular noun case endings. Thus, age/ and +u/ give agu/ as in agum, "of the one over there", agumi "in the one over there", agumun "to the one over there", etc.

(e) "Dual and plural pronouns" are formed by attaching ∿ku/ to the demonstrative stem, and following this with unpossessed dual and plural case endings. Thus, age/ and ∿ku/ give aagku/ as in aagkut "the ones over there", aagkugni "in the two over there", etc.

However, if the demonstrative stem ends in ke, when adding ∿ku/, e is kept on the stem and g is inserted after it (Sec. II2f). Thus pike/ "up there, visible, localized", and ∿ku/ give pikegku/ as in pikegkut "the ones up there".

(f) "Demonstrative adverbs" are formed by attaching +a/ to the demonstrative stem, and following this by one of the following special prepositional case endings:

localis	+ni	"at"
terminalis	+vek	"to"
vialis	+gun	"through"
ablative	+ken	"from"

Thus, age/ and +a/ give aga/ as in agani "in the area over there", agavek "to the area over there", etc.

However, if the stem ends in ge or we, the ablative demonstrative adverb ending is ∿ken, and this is attached directly to the demonstrative stem. Thus we have aagken "from the area over there", rather than agaken.

Also, if the stem ends in ke, the ablative demonstrative adverb ending is also ken, with e retained and g inserted (Sec. II2f). Thus, the ablative demonstrative adverb from the stem pike/ is pikegken "from the area up there", rather than pikaken.

It should be noted that there are no demonstrative adverbs in the absolutive, relative or aequalis cases. This is because demonstrative adverbs indicate locations rather than denoting things in these locations (as demonstrative pronouns do) things which could be subjects, objects, possessors or objects of comparison.

The following examples should make clearer the conditions under which demonstrative adverbs are used as compared to the conditions under which demonstrative pronouns are used.

pronoun: Tagiiq aagken. "He came from over there."

adverb: Tagiiq agumek. "He came from that one over there." (where "that one" revers to an entity, albeit large, moving or lengthy, located "over there")

pronoun: Esghagaqa qawaak pikani. "I saw a bird up there."

adverb: Esghaghaqa qawaak pikumi. "I saw a bird in/on that thing up there."

same/ "below"

sakme/ "on the beach or towards St. Lawrence from outside the island"

pame/ "on top of the hill or upstairs"

ime/ "the aforementioned, the identy of which is known to speaker and listener"

There are also exceptional demonstratives which either don't fit well into these categories or which don't accept suffixes in the usual way. These exceptional demonstratives are listed below with sample forms listed in the following order:

1) absolutive singular demonstrative pronoun
2) locative singular demonstrative pronoun
3) absolutive/relative plural demonstrative pronoun
4) vocative singular (if any)
5) localis demonstrative adverb
6) interjectional (if any)

1) maana "the one here, this" ("extended" semantic category)
2) matumi "in this one"
3) maakut "these"
4) ---
5) maani "here"
6) maa "here!"

1) una "the one right here, this" ("restricted" semantic category)
2) uumi "in this one"
3) ukut "these"
4) uyuq "you here"
5) whani "right here"
6) wha "right here!"

1) taana "the one there, near listener, that" ("restricted" semantic cat.)

2) taami "in that one"

3) taakut "those"

4) tawani "there"

5) ---

6) ---

1) iigna "the one over there" ("restricted" semantic category)

2) ingumi "in that one"

3) iingkut "those"

4) ingani "yonder" (note: ablative is iingken not ingaken)

5) iingyuq "you, over there"

6) inga "yon!"

1) kaana "the one down hill, or on the beach" ("restricted" semantic cat.)

2) kanumi "in the one down there"

3) kaankut "those, down there"

4) kanani "in the place down there"

5) kaanyuq "you down there"

6) kana "down there!"

The interrogatives kina "who?", and nani "where?" behave much like demonstratives.

1) kina? "who?"

2) kitumi? "in whom?"

3) kinkut? "who$_{pl}$?"

There are no adverb, vocative or interjectional forms.

For nani there are no pronoun or vocative forms.

5) nani? "where?" (note: terminalis is either navek or natmun)

6) naagu? "where?" (to be answered by pointing or with an interjectional form)

5) Numerals

The Siberian Yupik numeral system, like other Eskimo numeral systems, is based on twenty with a secondary base at five. Thus separate words exist for one through five, for ten, fifteen and twenty. The numerals between are compounds of the basic numeral words, while numerals higher than twenty are seen as multiples of twenty plus something left over (siipneqluku).

Cardinal numerals (in the form used for counting)

1	ataasiq	
2	maalghuk	
3	pingayut	
4	estamat	
5	tallimat	
6	aghvinlek	
7	maaghraghvinlek	(5+2)
8	pingayuneng inglukek	(5+3)
9	estamaneng inglukek	(5+4)
10	qula	
11	qula ataasiq siipneqluku	(10+1)
12	qula maalghuk siipneqlukek	(10+2)
13	qula pingayut siipneqluki	(10+3)
14	qula estamat siipneqluki	(10+4)
15	akimigaq	
16	qula aghvinlek siipneqluku	(10+6)
17	qula maaghraghvinlek siipneqluku	(10+7)
18	qula pingayuneng inglulek siipneqluku	(10+8)
19	qula estamaneng inglulek siipneqluku	(10+9)

Most demonstrative stems fall into one of the following three categories. These categories are both phonological and semantic.

The "restricted" category consists of stems ending in ke/. These are locations or objects that are within sight of the speaker and whose entire extent is comprehensible to the eye in a single glance. Stems in this category are:

uke/ "towards here"

pike/ "up above"

ike/ "across there or towards south-west"

The "extended" category consists of stems ending in ge/ or we/. These are locations or objects that are within sight of the speaker, but whose entire extent is not comprehensible in a single glance. Thus, the locations or objects in this category are extensive or lengthy or moving. Stems in this category include:

age/ "over there or leaving"

qage/ "outside"

un'ge/ "down hill from here"

uge/ "on the beach or south-west"

page/ "up hill from here or north or towards the Siberian mainland"

kiwe/ "towards Savoonga or south-east"

The "obscured" category is stems ending in me/. These are objects or locations that are not within sight of the speaker. Included are:

qame/ "inside"

qakme/ "outside"

ame/ "in the other room, over the mountain"

akme/ "outside St. Lawrence Island or outside Alaska"

20 yuginaq

40 yugek maalghuk (20×2)

60 yuget pingayut (20×3)

Etc.

Ataasiq, the numeral one, is grammatically singular; maalghuk is dual; pingayut, estamat and tallimat are plural. From aghvinlek on, the numerals are singular in the form in which they are used for counting objects, as on the above list. However, when used in a sentence the counting form is sometimes changed so that the nouns and verb of the sentence will agree grammatically with the numeral. For example:

Ataasiq aghnaq kaatuq. "One woman arrived."

Maalghuk aghnak kaatuk. "Two women arrived."

Pingayut aghnat kaatut. "Three women arrived."

Pingayuneng inglulek aghnaq kaatuq. "Eight women arrived."
(Note that aghnaq is singular in this case. A literal translation would be "The woman, the one having eight associates including herself, arrived.")

The numerals aghvinlek, maaghraghvinlek, qula, akimigaq, and yuginaq are put in the plural when used in a sentence:

Maaghraghvinleget aghnat kaatut. "Seven women arrived."

Numerals are often put in the ablative-modalis case to give more information about a noun which has been verbalized by a postbase (Sec. III2c). For example:

Qikmilguunga pingayuneng. "I have three dogs."

6) Selectional stems

These stems select one or more things from a collection. The selectional stem has a possessed ending and the collection from which the selection is made is the grammatical possessor.

ila/ "one of, some of"

ilangat aghnat "one of the women"

ilangit aghnat "some of the women"

ilangak aghnak "one of the two women"

ilavut "one of us"

ilaput "some of us"

This stem, ila/ can also be used as an ordinary, non-selectional, noun stem meaning, "relative", "friend" or "part".

naligh/ "which one of, which ones of" (in interrogative context)

naliit aghnat "which one of the women"

naliik iyegma "which one of my eyes"

Naliita qikminka amqeghtaten? "Which of my dogs bit you?"

nalighput "which one of us"

-negh/ "the one or ones which are V to the greatest extent" is a nominalizing postbase used with verbs expressing qualities, which produces selectional stems.

aangenghat qikmit "the biggest one of the dogs"

aangenghit qikmit "the biggest ones of the dogs"

7) Positional Stems

These nominal stems denote a position or area with respect to something. For the most part they are used with possessed endings, the possessor being the object of reference. Positional stems include the following:

asi/ "area beneath" asinga "beneath it", asingakun "through the area beneath it", Mangteram asinganituq. "It is under the house."

qule/ "area above" without a possessive ending, qula is the numeral "ten", refering probably to the ten digits on the upper part of one's body

tunge/ "area towards" naaygham tungenganun "towards the direction of the mountain"

sani/ "area beside"

kingu/ "area at the back" angyam kingunga "the back of the boat"

sivu/ "area at the front" angyam sivunga "the front of the boat"; sivumni "in front of me"

ilu/ "area inside" Qepghaghtuq mangteram ilungani. "He worked inside the house."

eslaate/ "area outside"

kelute/ "area back from something, away from the water"

kete/ "area down from something, toward the water"

manu/ "area in front"

tunu/ "area behind"

akule/ "area in between"

qaye/ "surface" qaayngani "on its surface"; qaayka or qaaska "my surface"

paye/ "mouth, opening" riigtem paayna "the mouth of the lair"

uvite/ "area around"

In addition to the positional stems listed above, the postbase +ate/ can be attached to practically any of the demonstrative stems (Sec. 5) to yield positional stems. This postbase shifts the frame of reference of the demonstrative stem from the speaker to the grammatical possessor. For example:

Demonstrative adverb: pamani "up, back there (from here)"

Positional stem: mangtegham pamatengani "up, back from the house"

Certain postbases are restricted to positional stems, or primarily to them. For example:

+qliq* "the one farthest in that position"

sivuqliq "one farthest in front, first one, leader"

kinguqliq "rearmost one"

iluqliq "inmost one"

+tmun "towards that position or direction"

sivutmun "forward"

kingutmun "backward"

asitmun "downward"

8) vocative forms

These forms are used for addressing someone or getting his attention. There are vocative forms for demonstratives (Sec. III4), for terms denoting one's relatives, and for proper names.

The vocative singular for nouns other than demonstratives is formed by doubling the last vowel of the stem, and affixing -y. Thus, the vocative of apa "grandfather" is apaay.

9) Use of Verbal stems as abstract Nouns

Many stems have both a verbal meaning and a concrete nominal meaning. For example, iqsak as a noun means "fish hook", while as a verb stem iqsag/ is "to fish". Likewise unuk "night", and unug/ as a verb, "for night to fall", as in unugaa "night fell upon him". In addition, stems which are primarily verbal can be used as nominal stems, without expansion by nominalizing postbases, to denote the abstract state, act, etc. described by the verb. These stems, nominalized without postbase, are used with unpossessed endings in the prepositional cases. For example, qavarmi "in sleep, during sleep".

If such a stem ends in a cluster CCe where the second consonant is a stop, and an e dropping case ending is used after this, then the e will be dropped and reinserted to break the resulting cluster of three consonants. And, as a result of this, the first continuant of the ending will be devoiced. For example, from the stem, ughunqightughte/ "for there to be thawed patches", and the ending $\sim_{f}$-$_{w}$mi, one gets first ughunqightughtmi, by e dropping, and this goes to ughunqightughtemmi, "in the time of thawed patches, when there are thawed patches". The m here is voiceless due to its contiguity to the stop t in the intermediate stage, and this voicelessness remains even after e is inserted.

Compare this to the situation when the same ending is added to an ordinary nominal stem ending in Cte. In that case even though the ending directs that final e be dropped, this does not occur (see Sec.2f) and the m is not devoiced. Thus yughaghte/ "preacher" and this ending give yughaghtemi "in the preacher".

10) Appositives

Two nouns may be used in apposition to each other, that is refering to the same thing or things, particularly if one of the nouns is a numeral, or a demonstrative pronoun, or is a noun denoting a thing having a particular quality (for example nutaghaq "a new thing") or is a participial used nominally (see Sec. IV2b). The second noun agrees with the first in case and number, but is generally used without a possessed ending.

Examples:

Nutaghaq angyaqa pinightuq. "My new boat is good." (lit. "the new one, my boat . . .")

Yugem quyakumakanga esghaghluku tagnemllaaq afsengaq. "The man is happy to see the brown mouse."

Pingayut qikmiten neghtut. "Your three dogs ate."

Aghnaq neghumalghii qavaghllequq. "The woman who was eating will sleep."

Iigna yuuk atakaqa. "That man, over there, is my father."

IV. Verbals

1) general remarks

Every verb ending, no matter what mood, is either "intransitive" or "transitive". An intransitive ending indicates the person and number of only the subject, and if the subject is third person and is specified by a noun, then this noun is put in the absolutive case (Sec.III2a). For example:

Yuuk neghtuq. "The man ate." (neghtuq has an intransitive ending indicating third person singular subject.)

A transitive ending indicates the person and number of both the subject and the object, and if the subject is third person and is specified by a noun, then this noun is put in the relative case (Sec.III2b), while if the object is third person and is specified by a noun, then that noun is put in the absolutive case (Sec.III2a). For example:

Yugem neghaa kayu. "The man ate the bullhead." (neghaa has a transitive ending indicating third person singular subject, and third person singular object.)

There is no "active" vs. "passive" dimension in Siberian Yupik. The passive can sometimes be expressed through postbases.

Likewise there is no "positive" vs, "negative" dimension, the negative also being expressed through postbases. Separate negative forms do exist, however, for the intransitive participial (Sec.IV2b), the second person optative or imperative (Sec.IV2d), and for the appositionalis (Sec.IV2e).

Tense is also expressed through postbases, though when a verb is used without tense-indicating postbases there is usually the implication that the event described occured in the recent past. This implication does not hold for "stative" verbs, nor for the optative.

For example:

Kaatuq. "He arrived." (To express, "He is in the process of arriving", a postbase is used: Kaataquq)

Aanguq. "He is big." (This is a stative verb, so there is no past implication.)

Neghigu. "Eat it!" (This verb is in the optative mood, so there is no past implication.)

On the other hand, to fix an event definitely in the past, another postbase is used:

Kaatkaaguq or Kaaskaaguq. "He has arrived."

The "indicative", "participial", "interrogative" and "optative" moods are said to be "independent" moods in that they usually are used for the main verbs of sentences.

The "subordinative", "consequential", "subjunctive", "concessive" and "precessive" moods are said to be "dependent" moods in that they are usually used as the verbs of subordinate clauses in sentences having a main verb in one of the independent moods.

2) Verb moods and their uses

a) indicative

The indicative mood is used to make statements. For example:

Esghaghlleqamken unaaqu. "I shall see you tomorrow."

Qepghaghtunga. "I am working."

Anngama neghaa iqalluq. "my brother ate the fish."

Angyaghllalguuq. "He has a big boat."

From the chart on the following page it can be seen that:

(1) The 3rd person subject intransitive endings are the same as the unpossessed absolutive noun endings.

(2) The 3rd person object transitive endings are the same as the possessed absolutive noun endings.

(3) The 3rd person subject, 1st and 2nd person object transitive endings seem to represent a fusion of 3rd person possessor absolutive noun endings and 1st and 2nd person intransitive verb endings.

(4) The 1st person subject, 2nd person object, and the 2nd person subject, 1st person object transitive endings seem to represent fusions of 1st and 2nd person possessor relative noun endings and 1st and 2nd person intransitive verb endings.

Indicative Mood Verb Endings

SUBJECT		TRANSITIVE									INTRANSITIVE	
			OBJECT									
			3rd person			1st person			2nd person			
			s	p	d	s	p	d	s	p	d	
3rd person	s	∿sf(g)a/ [1]	a [2]	i	k	anga	inkut	inkung	aten	isi	atek	Ø
	p		at	it	gket	atnga	inkut	inkung	aten	isi	atek	-t
	d		ak	ik	gket	agnenga	inkut	inkung	aten	isi	atek	-k
1st person	s		-ka	-nka	-gka				-mken	-msi	-mtek	-nga
	p		+put	-put	-gput				-mken	-msi	-mtek	-kut
	d		+pung	-pung	-gpung				-mken	-msi	-mtek	-kung
2nd person	s	∿sf(g)agh/	-n	-ten	-gken	+penga	+pekut	+pekung				-ten
	p		+si	-si	-gsi	+pesinga	+pesikut	+pesikung				-si
	d		+tek	-tek	-gtek	+petegnegna	+petegnekut	+petegnekung				-tek
											∿f(g)(t)ugh/	

Notes:

(1) The a here is deleted if the result of keeping it would be a three vowel cluster. Thus ifla/ and ∿sf(g)a/ and i give iflaai hence iflai hence iflii "he loses them" by vowel assimilation.

(2) More precisely, this ending is ∿:(ng)a and the part that comes before is is ∿sf(g)agh/ , similarly for the other 3rd person subject transitive endings. However, (ng) is not used after the consonant gh and this gh itself is dropped by intervocalic gh dropping (:), hence the abreviated form in which the table is presented.

$\sim_{f}^{(g)}{}_{(t)}uq$ 3rd person singular intransitive indicative ending

class	stem	with suffix	translation
1	qiya/	qiyaaq[1]	he cried
2	avii/	aviiguq[2]	his ears rang
3	neghe/	neghtuq[3]	he ate
	kuuve/	kuuvuq	it spilled
	aaghhwe/	aaghwuq	he crawled
	taaqe/	taaquq	he quit
	aange/	aanguq	he is big
4	kaate/	kaatuq	he arrived
	ingaghte/	ingaghtuq	he lay down
6	qavagh/	qavaghtuq[4]	he slept
	ategh/	ateghtuq	he went down

Notes:

(1) from qiyauq by vowel assimilation

(2) (g) is used with stems ending in two vowels

(3) (t) is used after gh after dropping final e ($\sim_{f}$), but not after other consonants which are followed by e in the stem

(4) (t) is used after stem-final consonants

b) participial

The participial has both verbal and nominal uses.

The morphemes which mark the participial are →-lghii/ for intransitive, and →∿-ka/ for transitive. In the case of →∿-ka/, t on a stem changes to s unless that t is part of a negative ite°/ postbase in which case t changes to l.

For the verbal use of the participial these morphemes will be followed by the final parts of the endings of the indicative mood (bearing in mind footnote (2) on the chart of indicative endings). The verbal use is for statements having a past implication, and perhaps exclamatory in nature. For example:

Neghelghii. "He ate."

Neghelghiinga. "I ate."

Neghegkanga. "He ate it." (see Sec. 2f concerning retention of e and insertion of g here)

Tuquskaka. "I killed it."

Atuqan. "You used it."

For the nominal use of the participial, the morphemes →-lghii/ and →∿-ka/ should be regarded as nominalizing postbases. The former means, "the one that V-ed", and can only be used with stems capable of taking intransitive endings, and only unpossessed noun endings can be used with it. The later means "the one possessor V-ed", and can only be used with stems capable of taking transitive endings, and only possessed noun endings can be used with it.

For example:

neghelghii "the one who ate"

neghelghiimeng "from the one who ate"

neghegkaka "the thing I ate"

neghegkamneng "from the thing I ate"

→-lghii 3rd person singular intransitive participial

class	stem	with suffix	translation
1	qiya/	qiyalghii	he cried / the one who cried
3	kuuve/	kuuvelghii	it spilled / the one which spilled
	taaqe/	taaqelghii	he quit / the one who quit
4	kaate/	kaallghii	he arrived / the one who arrived
	ingaghte/	ingaghlleghhi	he lay down / the one who lay down
6	qavagh/	qavalghii	he slept / the one who slept
	ategh/	atelghii	he went down / the one who went down

Notes:

(1) tel → ll and e is inserted to break the resulting three consonant cluster. Voicelessness carries across the inserted e.

Those stems formed by expansion with a negative ite°/ postbase have another, more comprehensive, intransitive participial, →ngugh*/ (changing t to l). Thus, from neghenghite°/ we have both:

neghenghillghii "he didn't eat / the one who didn't eat"

and, neghenghilnguq "he doesn't eat / the one who doesn't eat"

d) interrogative

The interrogative mood is used for questions. When this mood is used without a special interrogative word or stem, the question is to be answered "yes" or "no". Special interrogative words include:

qakun? when (future)?

qavngaq? when (past)?

sangan? why?

sa?, sameng? what?

kina? who? (see Sec.Ш4)

nani? where? (see Sec.Ш4)

The noun and verb stem sa/, "what", when expanded by various verbalizing or verb-elaborating postbases, is also used with interrogative endings to make questions.

Examples:

Neghyugsin? "Do you want to eat?"

Sameng neghyugsin? "What do you want to eat?"

Sangan qiyaa? "Why is he crying?"

Kina kaata? "Who arrived?"

If the interrogative words listed above are used in sentences with verbs not in the interrogative mood, the interrogative word indicates indefiniteness:

Kina kaatuq. "Someone arrived."

Interrogative Mood Verb Endings

SUBJECT		TRANSITIVE									INTRANSITIVE	
			OBJECT									
			3rd person			1st person			2nd person			
			s	p	d	s	p	d	s	p		
3rd person	s	$\sim_{f}^{(g)}$a/	gu	ki	kek	nga	$_{i}$nkut	$_{i}$nkung	ten	$_{i}$si	$\sim_{f(t)}^{(g)}$a/	Ø
	p		tgu	tki	tkek	tnga	$_{i}$nkut	$_{i}$nkung	ten	$_{i}$si		t
	d		gnegu	gneki	gnekek	gnenga	$_{i}$nkut	$_{i}$nkung	ten	$_{i}$si		k
1st person	s	$\sim_{f}$(t)zi/	kun	ngi	gngek				ken	indicative endings are used for these	$\sim_{f}$(t)zi/	nga
	p	$\sim_{sf}$:ste/	ggu	ki	kek				ken		$\sim_{sf}$:ste/	a
	d		gnegu	gneki	gnekek				ken			ung
2nd person	s	$\sim_{f}$(t)zi/	gu	ki	kek	nga	kut	kung			$\sim_{f}$(t)zi/	n
	p	$\sim_{sf}$:ste/	ggu	ki	kek	ngnga	kut	kung			$\sim_{sf}$	tsi
	d		gnegu	gneki	gnekek	gnenga	gnekut	gnekung			$\sim_{sf}$:ste/	k

Notes:

The subscript i on the final parts of some endings indicates that i is used instead of a from the first part of these endings.

The final or semi-final vowel of these endings is often lengthened (and e changed to a) if the verb is used in a "yes" or "no" question. However, this is not always done and in the examples on the following pages it will not be done in order to illustrate the basic form of the various interrogative endings.

$\sim_f$(t)zin 2nd person singular intransitive interrogative

class	stem	with suffix	translation
1	qiya/	sangan qiyazin	why did you cry?
2	aghnau/	aghnaazin	are you a woman?
3	aange/	aangzin	are you big?
	taaqe/	taaqsin[1]	did you quit?
	neghe/	neghsin[2]	did you eat?
4	ingaghte/	ingaghsin	did you lay down?
	kaate/	kaasin	did you arrive?
6	qavagh/	qavaghsin	did you sleep?
	ategh/	ateghsin	did you go down?

Notes:

(1) after the stop q, z is devoiced to s.

(2) from neghtzin with tz $\longrightarrow$ s (Sec. II2g)

$\sim_{sf}$tsi 2nd person plural intransitive interrogative

class	stem	with suffix	translation
1	qiya/	sangan qiyatsi	why did you$_{pl}$ cry?
3	neghe/	neghetsi	did you$_{pl}$ eat?
	taaqe/	taaqetsi	did you$_{pl}$ quit?
4	kaate/	kaatetsi	did you$_{pl}$ arrive?
	ingaghte/	ingaghtetsi	did you$_{pl}$ lay down?
6	qavagh/	qavaghetsi[1]	did you$_{pl}$ sleep?
	meqsug/	meqsugetsi	are you$_{pl}$ thirsty?
	ategh/	aatghetsi	did you$_{pl}$ go down?

Note:

(1) e is inserted to break the three consonant cluster ghts, note that gh is not devoiced (see Sec. II2e).

$\sim_{sf}$:sta 1st person plural intransitive interrogative.

class	stem	with suffix	translation
1	qiya/	sangan qiyasta	why did we cry?
3	neghe/	neghesta	did we eat?
4	kaate/	kaatesta	did we arrive?
6	qavagh/	qavaasta	did we sleep?
	mayugh/	mayuusta	did we go up?
	meqsug/	meqsugesta	are we thirsty?
	paagh/	paaghesta	did we lap?
	ategh/	aatghesta	did we go down?

d) optative and imperative

The optative mood is used to express the desire on the part of speaker that a certain event or state of affairs take place. Optative forms with second person subjects are used for requests or orders and may be called "imperatives".

Examples:

Esghaghhu. "Look at it."

Mayuultung naayghamun. "Let's go up to the mountain."

Negative imperatives, that is prohibitions, are expressed with a separate set of forms and will be treated after the section on optatives.

Optative Mood Verb Endings

SUBJECT		TRANSITIVE									INTRANSITIVE	
			OBJECT									
			3rd person			1st person			2nd person			
			s	p	d	s	p	d	s	p		
3rd person	s		gu	ki	kek	nga	kut	kung	ten	si	tek		∅
	p	→$\sim_f$li/	tgu	tki	tkek	tnga	nkut	nkung	ten	si	tek	→$\sim_f$li/	t
	d		gnegu	gneki	gnekek	gnenga	nkut	nkung	ten	si	tek		k
1st person	s	→$\sim_f$la/	kun	ngi	ngak				mken	msi	mtek	→$\sim_f$la/	nga
	p	$\sim_{sf}$:lte/	ggu	ki	kek				mken	msi	mtek	$\sim_{sf}$:lt/	a
	d		gnegu	gneki	gnekek				mken	msi	mtek		ung
2nd person	s	(i)/[1]	*	ki	kek	nga	kut	kung					**
	p	↓(i)/[2]	teggu	teki	tekek	tengnga	tekut	tekung				↓(i)/[2]	tek
	d		tegnegu	tegneki	tegnekek	tegnenga	tegnekut	tegnekung					tek

For * and ** see following pages.

Notes:

(1) (i) is used with stems ending in e or te.

(2) (i) is used with stems ending in e.

* 2nd person singular to 3rd person singular transitive optative

* { gu for stems ending in
  { igu for stems ending in e or te
  { $\sim_{sf}$-ggu for stems ending in a consonant

class	stem	with suffix	translation
1	ifla/	iflagu	lose it
3	kuuve/	kuuvigu	pour it
	neghe/	neghigu	eat it
4	tuqute/	tuqutigu	kill it
6	atugh/	atughhu[1]	use it
	laag/	laaggu	dig it
	aveg/	aafgu[2]	halve it

Notes:

(1) gg on the suffix is replaced with the voiceless back velar ghh because the stem ends in a back velar.

(2) Semi-final e is dropped ($\sim_{sf}$) giving aavggu, and then the v becomes voiceless (and is written f) because it is next to the voiceless fricative gg. According to the orthographical rules gg is now undoubled, hence the final spelling.

** 2nd person singular intransitive optative

** { Ø for stems ending in one prime vowel
(g)i for stems ending in two vowel or e, but not te
n for stems ending in te
$\sim_{sf}$:i for stems ending in consonants, but i of this ending becomes a if the gh on a stem is dropped by the process of intervocalic gh dropping (:)

class	stem	with suffix	translation
1	qiya/	qiya	cry
2	aghnau/	aghnaawi[1]	be a woman
3	neghe/	neghi	eat
	taaqe/	taaqi	quit
4	kaate/	kaaten	arrive
	ingaghte/	ingaghten	lay down
6	qavagh/	qavaa[2]	sleep
	mayugh/	mayaa[3]	climb
	pinigh/	pinii[4]	be good
	ategh/	aatgha	go down
	aghveliigh/	aghveliigha	cook whale
	meqsug/	meqsugi	be thirsty

Notes:

(1) aghnaugi → aghnaawi (see Sec. II2h and II2i)

(2) qavaghi → qavaa by intervocalic gh dropping and i → a (see top of page)

(3) mayughi → mayua → mayaa, the last step by vowel assimilation

(4) pinighi → pinia → pinii, the last step by vowel assimilation

(i)nga 2nd person sing. to 1st person sing. optative

class	stem	with suffix	translation
1	ifla/	iflanga	lose me
3	neghe/	neghinga[1]	eat me
4	tuqute/	tuqutinga[1]	kill me
6	atugh/	atughnga	use me
	aveg/	avegnga	halve me

Note:

(1) (i) is used with stems ending in e or in te.

→$\sim_f$li 3rd person sing. optative

class	stem	with suffix	translation
1	qiya/	qiyali	may he cry
3	nere/	nerli	may he eat
	taaqe/	taaqli	may he quit
4	kaate/	kaalli	may he arrive
	ingaghte/	ingaghlli	may he lie down
6	qavagh/	qavaghli	may he sleep

+(i)tek . 2nd person dual and 2nd person plural optative

class	stem	with suffix	translation
1	tagi/	tagitek	come
3	neghe/	neghitek[1]	eat
4	kaate/	kaatek[2]	arrive
	ingaghte/	ingaghtek[2]	lay down
6	qavagh/	qavaghtek	sleep
	ategh/	ateghtek	go down

Notes:

(1) (i) is used only after e, not te.

(2) te is dropped from stems.

Negative 2nd person optative

Second person subject optative endings are not used after a negative postbase. Instead, special forms exist for this purpose, that is to make prohibitions.

The postbase -fqaa/ is used on verb stems to express prohibitions directed at the present time. This postbase takes endings like the possessed relative noun endings (Sec.III2b).

Examples:

Qiyafqaavek.	"Don't cry." (like 2s-s/p rel.)
Qavafqaavek.	"Don't sleep."
Neghefqaavek.	"Don't eat."
Neghefqaan.	"Don't eat it." (like 3s-s rel. agreeing with "it")
Neghefqaama.	"Don't eat me." (like 1s-s/p rel. agreeing with "me")
Neghefqiita.	"Don't eat them." (like 3s-p rel. agreeing with "them")

The postbase ∿ yaquna/ is used on verb stems to express prohibitions directed at the future time. With some exceptions (such as the second example below) it takes optative endings.

Examples:

Neghyaqunang.	"Don't eat." (compare neg. app. (Sec.IV2e) for "ng")
Neghyaqunaan.	"Don't eat it." (like 3s-s rel. noun ending)
Neghyaqunaki.	"Don't eat them."
Neghyaqunanga.	"Don't eat me."

The appositionalis forms for negative verbs (Sec.IV2e) are often used for expressing prohibitions.

e) subordinative

A verb in the subordinative is used to express an event or state of affairs accompanying that expressed by the main verb, and usually having the same grammatical subject as the main verb.[1] This is basically a dependent verb mood. It can often be translated using the "-ing" English construction for the verb in the subordinative.

A second use of the subordinative is independently to make requests or orders.

Examples:

Aanluni piyugtuq. "He walked going outside." or "He went out and walked."

Neghesqelluku tagisqaa. "He told him to come eat."

Since the subject of the dependent verb in the subordinative is always the same as the subject of the main verb, it is really unnecessary that the subordinative ending should indicate anything more than the person and number of the object for transitive forms. And in fact this is all that is indicated. For intransitive forms, the subordinative endings also indicate person and number of the subject. Note that transitive subordinative endings with 1st or 2nd person object are exactly like intransitive subordinative endings with 1st or 2nd person subject. Intransitive subordinative endings with 3rd person subject are like 3R person absolutive noun endings.

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[1] The object of a subordinative transitive verb may be the same thing as the subject of the main verb in some cases.

→∿$_f$luni 3rd person sing. intransitive subordinative

class	stem	with suffix	translation
1	qiya/	qiyaluni	crying
2	aghnau/	aghnaaluni	being a woman
3	kuuve/	kuuvluni	spilling
	taaqe/	taaqluni	quitting
4	kaate/	kaalluni	arriving
	ingaghte/	ingaghlluni	laying down
6	qavagh/	qavaghluni	sleeping
	ategh/	ateghluni	descending

Negative Subordinative

Verb stems or expanded stems which end in te°/ (that is mostly expanded stems ending in a negative postbase) take a special form of the subordinative. Instead of →∿ɾlu/, this special subordinative begins with ↓na/. This in turn is followed by the usual final parts of the subordinative endings, except that the 2nd person singular subject intransitive and 2nd person singular object transitive is ng rather than ten. Furthermore, ↓na/ changes an i (before dropped te) to u, usually.

Examples:

stem	with suffix	translation
ugingite°/	ugingunani	(she) lacking a husband
ugingite°/	ugingunang	(you) lacking a husband

This "negative subordinative" marker, ↓na/ is not used after the postbase -n(e)ghite°/, "to not do something". Instead, this postbase is replaced by a postbase -gpe/ (which is used only in this way), and the negative subordinative marker is attached after -gpe/. For example:

neghegpenani "not eating"

Negative subordinative forms are also used independently for expressing prohibitions.

Subordinative Mood Verb Endings

SUBJECT		TRANSITIVE: OBJECT: 3rd person s	3rd person p	3rd person d	1st person s	1st person p	1st person d	2nd person s	2nd person p	2nd person d	INTRANSITIVE
3rd person	s	ku	ki	kek	nga	ta	nung	ten	si	tek	ni
	p										teng
	d										tek
1st person	s										nga
	p										ta
	d										nung
2nd person	s										ten
	p										si
	d										tek

→ $\sim_f$lu/ (TRANSITIVE)

→ $\sim_f$lu/ (INTRANSITIVE)

f) The Connective Verb Moods

(i) general remarks

These four dependent verb moods differ morphologically in the first part of their endings, but are alike in the last part of their endings (see chart). Unlike the subordinative, which is also a dependent mood, it is not necessary that the subject of a dependent verb in one of the connective moods be the same as the subject of the main verb of the sentence.

The endings of the connective verb moods differentiate the following situations:

(1) The subject of the main verb is different from both the subject and object of the dependent verb. Thus:

Esghaghyagu quyaaq. "When A saw B, C was happy."
(esghaghyagu has a 3s-3s ending)

(2) The third person subject of the main verb is the same as the subject of the dependent verb. Thus:

Esghaghyamigu quyaaq. "When A saw B, A was happy."
(esghaghyamigu has a 3Rs-3s ending)

(3) The third person subject of the main verb is the same as the object of the dependent verb. Thus:

Esghaghyatni quyaaq. "When A saw B, B was happy."
(esghaghyatni has a 3s-3Rs ending)

The final parts of the endings of the connective moods resemble the possessed relative noun endings (Sec. II2b), in the same way that indicative endings resemble absolutive noun endings.

Final Parts of the Endings of the Connective Verb Moods

SUBJECT		TRANSITIVE OBJECT												INTRANS
		3rd person			1st person			2nd person			3R person			
		s	p	d	s	p	d	s	p	d	s	p	d	
3rd person	s	gu	ki	kek	nga	$_{i}$nkut	$_{i}$nkung	ten	$_{i}$si	$_{i}$stek	tni	$_{i}$steng	$_{i}$stek	n
	p	tgu	tki	tkek	tnga	$_{i}$nkut	$_{i}$nkung	ten	$_{i}$si	$_{i}$stek	tni	$_{i}$steng	$_{i}$stek	$_{i}$ta[1]
	d	gnegu	gneki	gnekek	gnenga	$_{i}$nkut	$_{i}$nkung	ten	$_{i}$si	$_{i}$stek	tni	$_{i}$steng	$_{i}$stek	yek/gkenl
1st person	s	mkun	mki	mkek				mken	msi	mtek	mni	mteng	mtek	ma
	p	mteggu	mteki	mtekek				mken	msi	mtek	mnni	mteng	mtek	mta
	d	mtegnegu	mtegneki	mtegnekek				mken	msi	mtek	mtegnegu	mtegneki	mtegnekek	mtung
2nd person	s	vgu	fki	fkek	vnga	fkut	fkung				vgu	fki	fkek	vek
	p	fsigu	fsiki	fsikek	fsinga	fsikut	fsikung				fsigu	fsiki	fsikek	fsi
	d	ftegnegu	ftegneki	ftegnekek	ftegnenga	ftegnekut	ftegnekung				ftegnegu	ftegneki	ftegnekek	ftek
3R person	s	migu	miki	mikek	minga	mikut	mikung	miten	misi	mitek				mi
	p	megteggu	megteki	megtekek	megtengnga	megtekut	megtekung	miten	misi	mitek				meng
	d	megnegu	megneki	megnekek	megnenga	megmekut	megnekung	miten	misi	mitek				mek

Notes: (1) the subscript here operates only with the concessive mood

With the concessive mood, 2nd person subject endings begin with pe rather than v or f

(ii) consequential (one of the connective moods)

The first part of these endings is ∿$_f$ya/. There are several alternate forms. One is to use ∿$_f$nga/ after vowel ending stems (including Vte ending stems but excluding stems ending in fricative plus e).

The meaning of the consequential mood is "when" (restricted to the past) or sometimes "because".

Examples:

Tagiyan quyakaqa. "When he came I was happy on account of it."

Neghyamigu neqnighquq. "When he ate it, he enjoyed (it)."

class	stem	with suffix ∿$_f$yan	translation
1	qiya/	qiyayan, qiyangan	when he cried
2	avii/	aviiyan, aviingan	when his ears rang
3	neghe/	neghyan	when he ate
	taaqe/	taaqsan, taaqngan	when he quit
4	kaate/	kaasan, kaatngan	when he arrived
	ingaghte/	ingaghsan	when he lay down
6	qavagh/	qavaghyan	when he slept

(iii) conditional (one of the connective moods)

The first part of these endings is →∿-ku/, except that with a 3rd person (not 3R) it is →∿-ka/ instead. te at the end of a stem will be retained if it follows a fricative, changed to s if it follows a vowel, but changed to l if marked with "°" on the stem.

The meaning of the conditional is "when" (restricted to the future), or "if".

Examples:

Qepghaghyukuvek qephaghaaten. "If you want to work, go ahead and work."

Neghenghilkan aanyaghaghaatek. "If he doesn't eat, you$_2$ can leave early."

class	stem	with suffix →∿-kan	translation
1	tagi/	tagikan	if he comes
3	kuuve/	kuufkan, kuuvegkan	if it spills
	neghe/	neghegkan	if he eats
4	ingaghte/	ingaghtekan	if he lies down
	kaate/	kaaskan	if he arrives
	neghenghite°/	neghenghilkan	if he doesn't eat
6	meqsug/	meqsukan	if he is thirsty
	qavagh/	qavaqan	if he sleeps

(iv) concessive (one of the connective moods)

The first part of these endings is -ghngaa(gh)/ . The parenthesized (gh) will be deleted with all 3rd person subject endings (not 3R) and with all 1st person subject endings except the 1st person singular intransitive.

The meaning of the concessive is "although" or "even though".

Examples:

Neghellghiteghngaaghma neghyungitunga. "Even though I haven't eaten, I don't want to eat."

class	stem	with suffix -ghngaan	translation
1	qiya/	qiyaghngaan	although he cried
3	neghe/	negheghngaan	although he ate
4	kaate/	kaateghngaan	although he arrived
6	qavagh/	qavaghngaan	although he slept
	meqsug/	meqsugngaan	although he is thirsty

(v) precessive (one of the connective moods)

The first part of these endings is /ɬ∿$_{f}$vagilga/ with te dropped only when it comes after a fricative on the stem, and v devoiced to f under these circumstances.

The meaning of the precessive is "before".

Examples:

Kaatfagilgama neghegkaaguq. "Before I arrived, he had eaten."

class	stem	with suffix ɬ∿$_{f}$vagilgan	translation
1	tagi/	tagivagilgan	before he cried
3	neghe/	neghvagilgan	before he ate
4	kaate/	kaatfagilgan	before he arrived
	ingaghte/	ingaghfagilgan	before he lay down
6	qavagh/	qavaghvagilgan	before he slept

3) Quantifiers

The stems tamaghhagh*/ signifying "all" or "every" and applying primarily to humans, and kezeghhagh*/ and ellnginaghhagh*/ both signifying "alone" or "only", will be called "quantifiers".

These quantifiers take only possessed relative case noun endings (Sec. III2b). If the thing or things to which the quantifier applies are 3rd person, then a 3R ending is used if that thing is the subject of the verb, and an ordinary 3rd person ending is used if it is not the subject of the verb. In this respect, quantifiers behave much like subordinate verbs in the connective moods (Sec. IV2f).

Examples:

Tamaghhaghmeng tagiit. "They all came."
(tamaghhaghmeng has a 3Rp ending because it applies to the subject)

Tamaghhiita esghaghanka. "I saw them all."
(tamaghhiita has an ordinary 3rd person plural ending because it does not apply to the subject)

Tamaghhamta neghiit. "All of use ate them."

Kezeghhaghmi tagiiq. "Only he came."

Kezeghhaan esghaghaqa. "I saw only him."

Two other kinds of stems take the same endings as the quantifiers and use the same criteria to decide which particular ending to use.

One kind are noun stems which have been expanded by the postbase +tuumagh*/ meaning, "together with one's belongings (which are denoted by the noun to which the postbase is attached)". For example:

Yuuk aatkaghtuumaghmi anagtuq. "The man fled with his clothes."

Esghaghaqa yuuk aatkaghtuumaan. "I saw the man with his clothes."

The other kind are stems formed by dropping the final te from certain stems which end in ghte or gte and which signify the action of getting into a certain physical position. The stem formed by dropping te signifies being in that state, and is used with quantifier endings (though not with ordinary 3rd person quantifier endings). For example:

Ingaghmi neghtuq. "He ate lieing down."

Ingaghmeng neghtut. "They ate lieing down."

Ingaghpek neghtuten. "You ate lieing down."

All the examples above have quantifier forms derived by deleting the te from the stem ingaghte/, "to lie down".

To say that something or someone is lieing down (in contrast to saying that he is doing something else while lieing down), the quantifier form is not used. Instead a postbase is attached and an ordinary verb ending used:

Ingaghngaaq. "He is lieing down, is in a lieing position."

4) Transitive verbs with impersonal subjects

A verb dealing with natural phenomena may often be used with a transitive ending where the subject must be regarded as "natural forces". This subject in such a construction is not specified by a separate noun. For example:

Sikaa meghem qaaynga. "It froze the surface of the water."

An intransitive construction without an impersonal subject can also be used:

Meghem qaaynga sikuuq. "The surface of the water froze."

Other examples of transitive constructions with impersonal subjects:

Wanlegi anigu ughugllagaa. "Pretty soon it will melt the snow."

Saghyat tengqaataqii. "It blew the things away."

Elngaatall aghitqumakanga. "It really got him wet."

5) Half-transitive postbase[1]

This postbase is ∿i/. It is a verb-elaborating postbase which always takes intransitive endings and which has the meaning in English, "subject Vs something". This postbase is used with three groups of stems:

(a) Stems which normally take only transitive endings, for example tuqute/, "to kill". With half-transitive postbase and an intransitive ending: tuqutiiq "he kills something".

(b) Stems which are "reflexive" when used directly with an intransitive ending, for example, ingaghte/ "to lie down, to lay (it) down". With intransitive ending directly on stem: ingaghtuq "he lies down, lays himself down". With half-transitive postbase and intransitive ending: ingaghtiiq "he lays something down".

(c) Stems which are "passive" when used directly with an intransitive ending, for example, ifla/ "to be lost, to lose (it)". With intransitive ending directly on stem: iflaaq "it is lost". With transitive ending directly on stem: iflaa "he loses it". With half-transitive postbase and intransitive ending: ifliiguq "he loses something".

The half-transitive postbase is not used with stems, such as neghe/ "to eat", where the intransitive form already has the meaning which the half-transitive postbase would give. Thus, the intransitive neghtuq already means "he eats (something)".

Intransitive constructions involving this postbase can take indefinite objects in the ablative-modalis case (Sec. III2c). Thus:

Ifliiguq savigmeng. "He loses a knife!"

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1 This is merely a traditional label, and does not signify a new grammatical category, as it seems to.

6) Compound-verbal Postbases[1]

These verb-elaborating postbases preserve some of the syntactical features of the verb stems to which they are attached. Compound-verbal postbases include, among others;

→∿$_f$ni/ "to say or think"

~$_{sf}$:sqe/ "to ask" (Vghe → ii if gh is dropped by :)

+(t)este/ "to cause or allow" ((t) is used only with consonant ending stems)

→∿$_f$miqe/ "to compel" (tem → mm only when te on the stem follows a fricative)

The basic principle of compound-verbal postbases is that the absolutive term for the inner verb is the same as the absolutive term for the outer verb.

By way of explanation, the absolutive term for a verb is the subject if the verb is intransitive, and is the object if the verb is transitive. Thus the absolutive term may or may not be specified by a separate noun, but if it is, then that noun is in the absolutive case.

The inner verb is the stem to which the compound-verbal postbase is attached.

The outer verb is the expanded verb including the compound-verbal postbase.

One cannot always tell whether the inner verb is to be interpreted as being transitive or intransitive, because the place for the ending of the inner verb is taken over by the compound-verbal postbase itself. Thus, ambiguities can arise.

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1 Compound-verbal postbases are also called "double-transitive", but this label is misleading.

Here are the possible situations:

(a) Outer verb intransitive; for example: neghyugniiq

(i) Interpreted as having the inner verb intransitive, and thus having the one who wants to eat as its absolutive term. Under this interpretation, neghyugniiq is to be translated as, "he says that he (himself) wants to eat."

(ii) Interpreted as having the inner verb transitive, and thus having as its absolutive term the object, that is the one that something wants to eat. Under this interpretation, neghyugniiq is to be translated as, "he says that something wants to eat him."

(b) Outer verb transitive; for example: neghyugnii

(i) Interpreted as having the inner verb intransitive, and thus having as its absolutive term the one who wants to eat, while the absolutive term for the outer verb is the one being spoken about. Under this interpretation, neghyugnii is to be translated as, "he says that she (someone else) wants to eat ."

(ii) Interpreted as having the inner verb transitive, and thus having as its absolutive term the one that something wants to eat. Under this interpretation, neghyugnii is to be translated as, "he says that something wants to eat her."

Whether the outer verb is intransitive or transitive, if the inner verb is intended to be transitive, then the subject of the inner verb may be specified by a separate noun in the terminalis case (Sec. III2e). Thus:

Yuuk nanumun neghyugniiq. "The man says that the polar bear wants to eat him."

Yugem nanumun neghyugnii aghnaq. "The man says that the polar bear wants to eat the woman."

V. Miscellaneous topics

1) The obsolete stem ete/

This stem, meaning "to be", is not used by itself in Siberian Yupik, though it is in some other Eskimo languages[1]. In Siberian Yupik it is used only when expanded by certain postbases (which we shall not go into here), or when fused to a localis case ending (Sec.III2d) on a noun preceding it. For example:

Angyametuq. "He is in the boat." (from angyami etuq)

Yugem angyaanituq. "He is in the man's boat." (from yugem angyaani etuq)

Whaantuq. "It is right here." (from whani etuq)

The pattern of fusion is: —mi & ete/ become —mete/, as in the first example above. —ni & ete/ become —nite/ as in the second example above, but with a demonstrative adverb (Sec.III4) —ni & ete/ become —nte/ and e hopping occurs (Sec.II2d) as in the third example above.

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[1] Iñupiaq and Sugpiaq

2) Loan words

Siberian Yupik has a substantial number of loan words mostly from Chukchi and English.

The loan words from Chukchi are presumably fairly ancient borrowings. They are largely, though not entirely, uninflectable words such as adverbs, conjunctions, interjections etc. Siberian Yupik is very rich in this category of words as compared to other Eskimo languages. While the Chukchi loan words do not involve any phonemes that are not present in the part of the language which is of clearly Eskimo origin, these Chukchi loan words do use phonemes which are rare elsewhere, and use them to a large extent. In addition many Chukchi loan words begin or end with phonemes that do not begin or end words which are of clearly Eskimo origin. Thus, Chukchi words often have r, and w which are rather rare in stems of clearly Eskimo origin; Chukchi loan examples being wanlegi "pretty soon", repall "with force", and luuraq "might". Only Chukchi loans such as elngatall "really", and enmis "already" end in fricatives.

Some examples of Chukchi loan words which are not uninflectable words like those discussed above, are yaywaali "orphan", and guygu "summer house". There may also be verb stems of Chukchi origin, but there does not seem to be any inflectional suffixes of Chukchi origin.

Though the phoneme r is not generally present in Eskimo languages, its occurence in a Siberian Yupik word is not a sure indication that that word is a loan from Chukchi. Some words of clearly Eskimo origin have r where in other Eskimo languages the apical l is used; for example, maaghraghvinlek "six" where r corresponds to the l in maalghuk. Also, Alaskan, though not other, Inupiaq has an apical r though there does not seem to be a

connection between the Alaskan Inupiaq use of the r and the Siberian Yupik use of it.

On the other hand, a number of postbases in Siberian Yupik have r or rr, and these postbases do not correspond to any postbases in other Eskimo languages. They may be ultimately Chukchi loans.

English loan words are of much more recent origin dating from the time of American whalers and traders in the nineteenth century. For example, **avlawa** "flour", kaawa "cow". It is interesting that these words are used on the Siberian mainland as well as on St. Lawrence Island, while the Central Yup'ik language on the Alaskan mainland has Russian loan words for these items of American/European culture. In Central Yup'ik mukaaq is "flour", and kuluvak "cow", both clearly of Russian origin. The explanation is that the initial extensive period of contact in Southwestern Alaska where Central Yup'ik is spoken was with the Russians, while the initial extensive period of contact for speakers of Siberian Yup'ik happened with English speaking American traders and whalers.

The procedure for borrowing an English noun ending in a consonant is to form a Yupik stem by attaching e. Thus, the stem underlying kaawa "cow" is kaawe/ as can be seen from the plural kaawet. This procedure is also followed in temporary borrowings or recent borrowings where the phonology of the English word has not been altered. English nouns ending in vowels become vowel ending Yupik stems. Thus kiti "cat, kitty".

A number of Siberian Yupik terms are similar to Inupiaq terms for the same thing, rather than being similar to Central Yup'ik terms for that thing. This may be due to borrowing from Inupiaq, or from Siberian Yupik and Inupiaq retaining the same word proto-Eskimo, while Central Yup'ik did not.

3) Comparison of Siberian Yupik (SY) and Central Alaskan Yup'ik (CAY)[1]

(i) Comparison of lexicon

A large number of stems which exist in SY do not exist in CAY and vice versa. In some cases the SY word which is not present in CAY does exist in Inupiaq. For example, SY /siqinəq/ "sun", Iñupiaq /siqiniq/ but CAY /akəɣ̣ta/ "sun"; another example, SY /qikmiq/ "dog", Iñupiaq /qipmiq̣/ etc., but CAY /qimuɣ̣ta/ "dog". In fewer cases is the common word shared by CAY and Iñupiaq. For example /aɲun/ "man" in both CAY and Iñupiaq but this word is not used in SY.

Postbases of CAY and SY correspond to about the same extent that stems do.

SY has a much larger stock of uninflectable words than CAY, mostly loan words from Chukchi.

The endings of CAY and SY correspond to each other quite well.

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[1]Because the standard orthographies for the two languages conflict, a neutral set of symbols is used in this section marked by slashes, "/ /". Vowel length caused by a double vowel is indicated by writing that vowel double, but rhythmic length is shown by the symbol "^" placed over the rhythmically lengthened vowel. Consonant gemination is indicated by the symbol "ˊ" placed over the geminated consonant, and stress is shown by the same symbol placed over the vowel of the stressed syllable.

The chart below shows the neutral set of symbols used here.

consonants

	labials		apicals		velars				glot.
					front		back		
stops	p	t	c		k	k^w	q	q^w	
v'ed frics.	v	l	z	r	ɣ	$ɣ^w$	$ɣ̣$	$ɣ̣^w$	
v-less frics.	f	ɬ	s/y	$r̥$	x	x^w	$x̣$	$x̣^w$	h
v'ed nasals	m	n			ŋ				
v-less nasals	$m̥$	$n̥$			$ŋ̥$				

vowels

	front	back
high	i	u
mid	ə	
low	a	

(ii) Comparison of syntax

The syntax of the two languages is quite similar. One difference, however, is the treatment of "yes - no" questions. In CAY these are expressed using a verb ending of the indicative mood and the enclitic /qaa/, while in SY they are expressed using the interrogative mood but without a further interrogative word, and with the vowel lengthened in the last syllable of the interrogative ending in the case of a one word sentence. Thus, CAY /naɣ̣yuxtutɔnqaa/ "do you want to eat?", but SY /naɣ̣yuxsiin/ "do you want to eat?". Forming "yes - no" questions this way is another characteristic that SY shares with Iñupiaq rather than with CAY.

(iii) Comparison of phoneme inventory

SY has the phonemes /r/ and /r̥/, which are completely lacking in CAY but which do exist in Alaskan Iñupiaq. SY also has labialized consonants which CAY does not have, except for some labialized front velar fricatives. However, the presence of labialized consonants in SY is mostly explainable in terms of vowel assimilation (Sec. II2h-i). The only phoneme found in CAY but not in SY is /c/. SY /s/ corresponds to CAY /c/ as well as to CAY /s/. Thus, CAY /ciku/ "ice", SY /siku/.

(iv) Comparison of rhythmic patterns

Both languages have rhythmic lengthening of the vowels in alternating non-final simple open syllables (a simple syllable is one having only one vowel, and an open syllable is one ending in a vowel). However the pattern of counting for this alternation is different in the two languages.

In CAY every second in a series of simple open syllables has rhythmic length. In SY every second in a series (including both closed and open syllables) of simple syllables has rhythmic length, if that second syllable is open. For example, consider the shared word /məɣ̣luniɫu/ "also drinking water". In CAY counting begins with the first simple open syllable /lu/, and the second simple open syllable, /ni/ has rhythmic length: /məɣ̣luni̇ɫu/. In SY, on the other hand, counting begins with the first simple syllable /məɣ̣/, and the second simple syllable , /lu/ has rhythmic length because it is open: /məɣ̣lûniɫu/.

In CAY an /ə/ generally does not appear in a position where it would be subject to rhythmic length; such a /ə/ is deleted. In SY, however, a /ə/ in a position subject to rhythmic length is allowed and it is stressed. Thus, "foot" in CAY is /itɣaq/ where the voiced fricative following the stop is evidence of a very late deletion of a /ə/. In SY "foot" is /itə́ɣaq/. If deleting a /ə/ in CAY from a position where it would be subject to rhythmic length would cause two like consonants to come together, then instead of deleting the /ə/, the consonant following it is geminated (which has the effect of removing the /ə/ from being subject to rhythmic length). Compare "in the footprint" in CAY /tumə́mi/ and in SY /tumə́mi/.

(v) Consonant gemination and the distinction between rhthmic vowel length and double-vowel length.

In CAY if a single vowel which is not rhythmically lengthened is followed by a consonant which in turn is followed by two vowels, then the consonant is geminated. Gemination in CAY arises from this process and that described in (iv). In SY there is no consonant gemination. In CAY the presence or absense of gemination of the preceding consonant indicates whether the long vowel of an open syllable is actually a double vowel or is a rhythmically lengthened single vowel. Thus /atâta/ "later on" vs. /atáata/ "uncle". Here the vowels of the middle syllables are the same length, but in the first case /t/ is not geminated while in the second case /t/ is geminated.

In SY, a double vowel in an open syllable is lengthened so that it is longer than a rhythmically lengthened single vowel. Thus /amâɬu/ "and, also" vs. /amâaɬu/ "also the wolf". In the second word, the middle vowel is even longer than the rhythmically lengthened vowel in the first word.

(vi) Comparison of phonology

A kind of reverse /ə/ hopping has occured whereby stems which start with əCV in CAY, and with iCV in Iñupiaq, start with CVV in SY. For example: CAY /əpu/ "handle" (Iñupiaq /ipu/) appears in SY as /puu/; CAY /əlitə/ "to learn" (Iñupiaq /ilit/) appears in SY as /liitə/.

CAY verb stems of the form (C)VC where V is prime, appear in SY with V doubled, but the /ə/ stays on the end of the stem nevertheless. Thus, to CAY /kuvə/ "to spill", there coresponds SY /kuuvə/, and to CAY /atə/ "to put on" there corresponds SY /aatə/.

To CAY stems starting with cəCV where C is an apical, there corresponds SY stems which start with əsCV. This is due probably to differing patterns of /ə/-insertion to break underlying word initial two-consonant clusters. As examples: CAY /cə̧na/ "shore", SY /əsn̥a/; CAY /cətaman/ "four", SY /əstamat/, CAY /cəɬa/ "world, etc.", SY /əsɬa/.

SY words may begin with fricatives, but CAY words do not begin with fricatives other than /s/, /y/ and /x^w/ (excepting loans from Russian). Other than in loan words, the initial fricative in a SY word may arise from the reverse /ə/ hopping discussed above, as, SY /ɣ̥iiq/ "milt" corresponding to CAY /əɣ̥iq/. An initial fricative in a SY word may also arise from CAY initial /kəx/, /qəχ̣/, or /ua/ which appear in SY as initial /x/, /χ̣/ and /wa/ respectively. Thus CAY /kəxinaq/ "face", SY /xinaq/; CAY /qəχ̣uɣ̥aa/ "he inflates it", SY /χ̣uuɣ̥aa/; CAY /uamtaa/ "he distracts her, or wastes her time", SY /waamtaa/.

In several stems where the SY version has an intervocalic /y/ or /v/, the CAY version has deleted this fricative. For example, SY /qiya/ "to cry", CAY /qia/; SY /iyə/ "eye", CAY /ii/; SY /qayə/ "surface", CAY /qai/; SY /sivu/ "front", CAY /ciu/. It is interesting that the Hooper Bay - Chevak dialect of CAY retains some of these fricatives just like SY, but unlike the rest of CAY.

Most, but not all, endings which end in Vk in CAY, end in Vŋ in SY. Thus, CAY /camək/ "of what", SY /saməŋ/; CAY /nəɣluk/ "let's$_2$ eat", SY /nəɣluŋ/; CAY /nəɣəfkənak/ "don't eat", SY /nəɣəxpənaŋ/.

Vowel assimilation occurs in SY but not in CAY. This has happened within stems, and it does happen when suffixes are added. For example, to the CAY words /uluaq/ "woman's knife" and /kiak/ "summer", correspond SY words /ulaaq/ and /kiik/. If the suffix /i/ "his many things" is attached to the shared stem /aŋyaɣ/ "boat" the result in CAY is /aŋyai/ "his boats" while the result in SY is /aŋyii/ "his boats" due to vowel assimilation. A result of this vowel assimilation is the high frequency of labialized front and back velars in SY as compared to CAY. For example, to the CAY words /kuik/ "river" and /auxɫuni/ "crawling" correspond two SY words /kiik^{w}/ and /aax^{w}ɫuni/ containing labialized velars. (see Sec. 2i)

Front velar continuants /ɣ/ and /ŋ/ occuring between single vowels have been deleted in CAY stems in many cases while they are retained in the corresponding SY stem. Also these front velars are deleted when many suffixes are added in CAY but not in SY. Furthermore, if a front velar which is flanked by two non-high vowels is deleted in CAY, then these vowels go to /i/. Thus, SY /saɣuyaq/ "drum", CAY /cauyaq/; SY /atkuɣa/ "his parka", CAY /atkua/; SY /səɣəsquq/ "knee", CAY /ciisquq/; SY /nunaŋa/ "his land", CAY /nunii/.

Vowel assimilation in SY, and intervocalic deletion of front velars in CAY are the two most noticeable phonological differences between these languages. A dipthong in a CAY word may appear as an assimilated double vowel in SY, or it may be that there is a front velar between the vowels in SY. Furthermore, since these processes apply as suffixes are added, one can realize that vowel assimilation occurs in SY without looking outside SY and that deletion of intervocalic front velars occurs in CAY without looking outside CAY.

/ə/-hopping (Sec. 2d) occurs in SY but not in CAY. Thus /atəq/ "name" in both languages, but SY /aatx̣a/ and CAY /atx̣a/ "his name".

In CAY semi-final /ə/ on a stem will be dropped precisely by those suffixes which do not drop final consonants. In SY there is no such correlation. For example, there are two nominalizing postbases in SY, both of which drop final consonants and are alike in other respects except that one drops semi-final /ə/ and the other does not. ~sf-nəq "result of V-ing", and -nəq "act of V-ing". Thus from the stem /avəɣ/ "to divide in half", SY has /aavnəq/ "a half" and /avənəq/ "act of halving". CAY would have no such distinction.