

When translation fails: Pinpointing “past tense” meanings with speakers of St. Lawrence Island Yupik

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Today

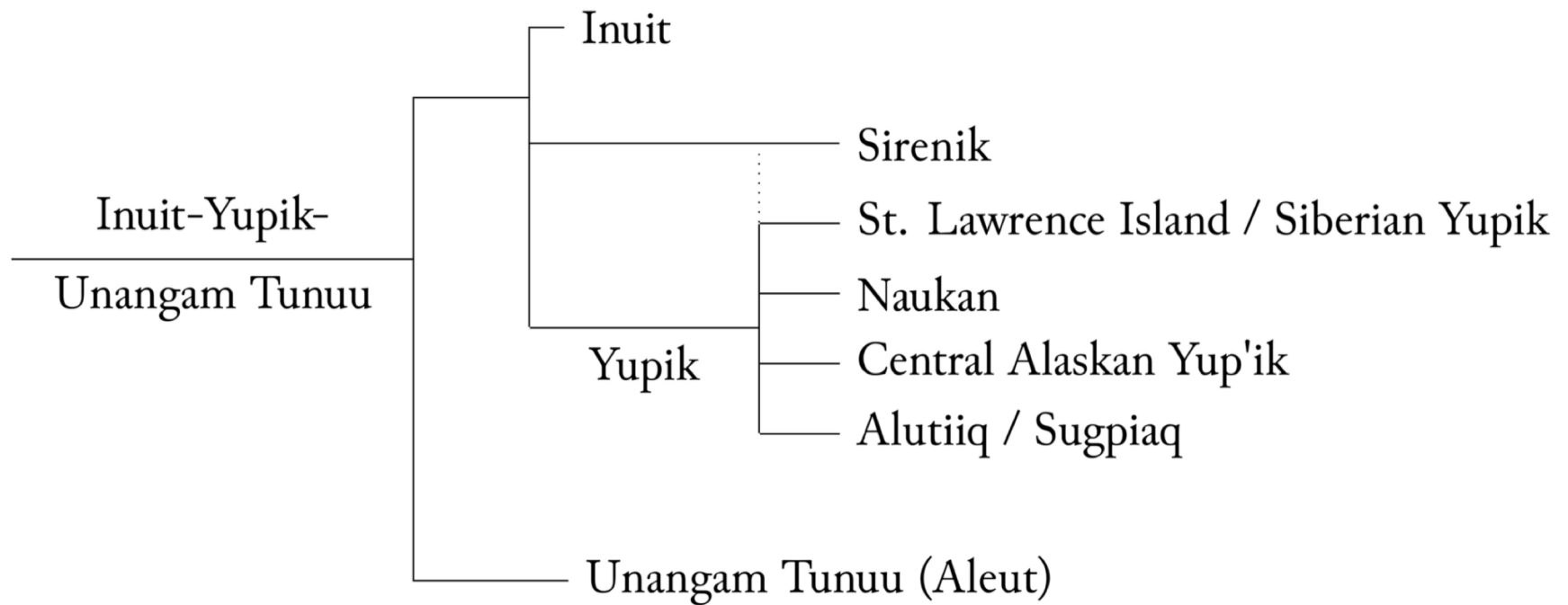
- The language and its speakers
- The project
- A documentation case study
- Moving forward



The Language and its Speakers

The Language

- *Yupik, Yupigestun, Akuzipik*
- English-language literature: “Central Siberian Yupik”, “St. Lawrence Island Yupik”
- Russian-language literature: “Chaplinski Yupik” (when spoken on the Chukotka peninsula)



Schwartz & Chen 2017, p. 277

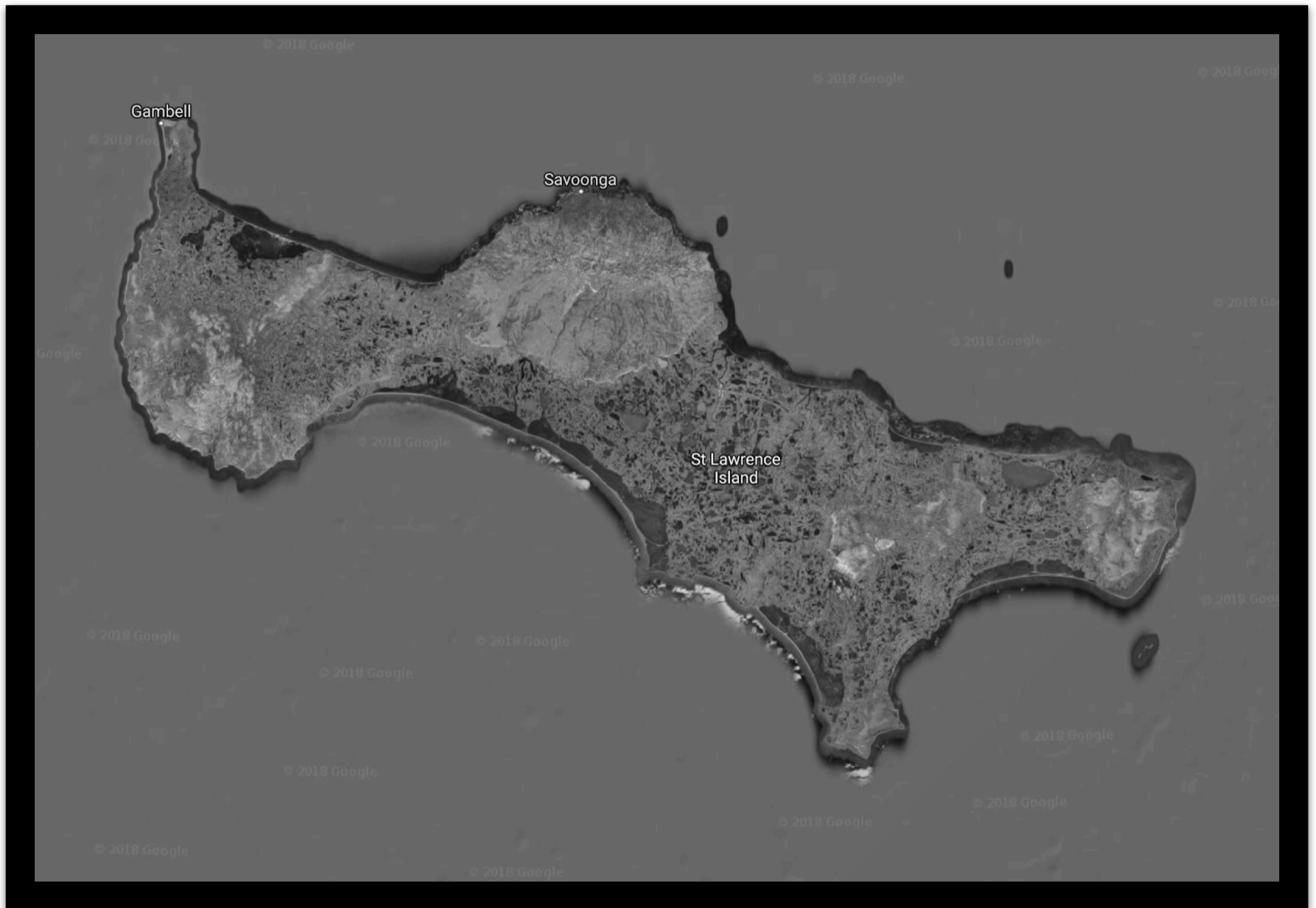




Photo courtesy Lane Schwartz

The Yupik (-speaking) Community

- Chukotka (~800-1200 Yupiget, ~200 speakers in several villages)
- Sivuqaq (St. Lawrence Island) (~1300 Yupiget, ~500-1000 speakers in two villages)
 - Sivuqaq (Gambell, incorporated 1963)
 - Sivunga (Savoonga, incorporated 1969)
- Alaskan mainland (~300-400)



Yupik Language Situation

- Yupik materials developed in Russia, 1930s-1950s
 - After this, shift away from Yupik
 - Youngest speakers in Russia ~70 years old
- Yupik materials developed in Alaska, 1970s-1990s
 - Bilingual-bicultural curriculum
 - ~1980, nearly all SLI Yupiget speaking Yupik at home
 - Dramatic shift starting in mid-1990s
 - Now: < half? of children speaking/learning Yupik at home

Existing English-language Scholarship

- Dictionary (Badten, et al. 2008) →
- Pedagogical grammar (Jacobson 2001) →

YUPIK BASES

Aghqitaghangha Аҕқитаҕаҥа
southern part of Troutman Lake which is next to Gambell

literally 'the shallow area'; see Map 7 in Appendices

< aghqitaghaq-neq⁸-possessed ending

aghqitaghaq аҕқитаҕақ
shallow water

< aghqe²-?

aghqutite- аҕқутиты-
to make sacrifices

Chukotkan (R)

< aghqe¹-?

aghquutke- аҕқуткы-
to cause disaster or hardship
ulevelleghmeng aghquutkaqii yuget
aangelghimeng ikfiqmeng 'the flood is causing the people hardship' (?)

4.2.6 The nouns **mekestaaghhaq** 'small thing', **takestaaghhaq** 'short thing', and **seghleq** 'bad thing', and the postbase **-lek** can be combined with the preceding postbases to make the following useful verb bases and verbalizing postbase:

mekestaaghhaa-	'to be small'
takestaaghhaa-	'to be short'
seghleghu-	'to be bad'
-lgu-	'to have N'

4.3 Discussion of grammatical topics

1st and 2nd person possessor possessed absolutive

The following endings are all absolutive case:

~-ka	my N
~ _{sf} w(e)nka	my N-sp1
~ _{sf} w(e)gka	my N-s ₂
~ _{sf} w(e)n	your ₁ N
+ten	your ₁ N-sp1
~ _{sf} w(e)gken	your ₁ N-s ₂

The meaning of each of the symbols used in these endings has already been explained. Except for the first and the fifth endings on the list above, these endings attach just like the simple plural ending, ~_{sf}w:(e)t, does (see 2.2.2). The first ending, ~-ka, drops final and semi-final e when possible (and hops them when that is possible); otherwise it attaches like the postbase -ghllak does. That is, it drops all final consonants, but if the dropped final consonant is uvular, then this ending takes the form qa for that word, and if the dropped final consonant is rounded, then

Existing English-language Scholarship

- Work on phonology, prosody, and orthography (Jacobson 1985, Krauss et al. 1985, Jacobson 1990);
- Syntax and language contact (Jacobson 1977, 1994, 2001, 2006; de Reuse 1994);
- Syntax and historical morphology (de Reuse 1992);
- Semantics (de Reuse 2001);
- Morphology and morphophonemics (Vakhtin 2009);
- Polysynthesis (de Reuse 2009); and
- Comparison with Alaskan Yup'ik (Jacobson 2012).

Existing Scholarship

- Some foundational and largely descriptive literature in Russian also exists
- As well as a healthy number of Yupik-language texts, and curricular materials (developed in the 1970s-1990s, largely not in use).

The Project



Community action / aims

- Maintenance & revitalization group
- Eventual goal: Immersion curriculum/program
- Our aims: support language use and language learning; provide computer tools and training for language goals; improve existing documentation

The Project

(1) Digitization

- Ethnographies, folksongs and stories, papers resulting from fieldwork in the 1970s (Alaska Native Language Archives, Fairbanks)
- Bilingual-bicultural pedagogical materials
- Use by community
- Building a larger corpus of materials

LESSON PLAN

Grade 5 Unit 1 Lesson 4

(Code = 5-1-4)

UNIT: SEA MAMMALS: WHALES

THEME: Hunting the Bowhead

Language Arts Objective

Students will learn to take notes and to identify Yupik whale hunting equipment.

Cultural Values Objective

METHODS (Always review and connect with previous lesson)

1. Discuss how the bowhead whale has been an important part of Yupik subsistence from time immemorial, how and when the whale was traditionally hunted. What is different about whale hunting today? (Whaling Commission, regulations). Why is there a quota of the number of whales which can be taken nowadays?
2. Bring some whale-hunting equipment to class (harpoon, pokes, rawhide ropes). Teach the students the names and parts of this equipment in Yupik. Have the students take notes.
3. What happens when the whale is harpooned? Why is there a flag waving and a poke up on the mast?
4. How is the huge whale brought home?
5. Who butchers the whale? How? How is the mangtak and meat distributed?

ATEQ ANSWER SHEET

AGHVEPIK

1. Whanga (esghaghii - esghaghaqa) aghvepik.
2. Ellngan (esghaghaa - esghaghtuq) aghvepik.
3. Whangkuta (esghaghiinkut - esghaghagput) aghvepik.
4. Elpek (esghaghaqa - esghaghaten) aghvepiget.

The Project

- (2) Computer tools
 - Spellcheck
 - Dictionary
 - Morphological parsers
 - E-books
 - Language app?



Kulusiq.

Whani whaa Kulusiq.

The Project

(3) Documentation

- Current priorities:
 - Un(der)documented affix attachment rules, lexical items (→parser errors)
 - Conflicting information in existing literature
 - Un(der)documented syntactic and morphological phenomena
 - Detailed positional and semantic work with derivational morphology

Multidirectional Leveraging

- Digitization → larger corpus → more accurate morphological analyzer
- Accurate morphological analyzer → efficient corpus searching → ability to locate existing documentation of phenomena, and their contexts

= better morphosyntactic *and* semantic fieldwork;
ability to build more complex tools for community members



Documentation Case Study

Case study in progress: -ma vs. -kaa

- (1) Neghtuq.
‘He/she/it ate.’
- (2) Neghumaaq.
‘He/she/it ate.’
- (3) Neghegkaaguq.
‘He/she/it ate.’

The “Past” in Yupik

- Unmarked form generally implies past time

(4) Kayaalistepaglukek.

kayaali -(te)stepag -lukek

get.weak -cause.to.V.a.lot -APO(1p-3d)

‘We allowed it (the stove) to get too weak.’

(SI-54, DR p. 85 ex. 24)

Case study in progress: -ma vs. -kaa

- @~:(i/u)ma and @~-(g)kaa
- In existing linguistic work (de Reuse 1994, Vakhtin 1989, Jacobson 2001):
 - both have been labeled “past tense”
 - translated with simple past or present perfect in English
 - out of context, our speakers do the same (without a clear pattern as to which gets which translation)

Case study in progress: -ma vs. -kaa

- De Reuse (1994:168):
 - “The difference between the past tense postbases *kaqe-* / *-kau-* and *@:(i/u)ma-* is subtle; they certainly have different epistemic modal connotations:

Case study in progress:

-ma vs. -kaa

- De Reuse (1994:168):
 - *-kaa*: “the past event is reported as a matter of **shared historical knowledge** for which the speaker need **not take total responsibility**”;...

Case study in progress:

-ma vs. -kaa

- De Reuse (1994:168):
 - *-ma* used when the speaker “takes some responsibility for the past event reported, regardless of whether it was actually witnessed by him” (1994: 168).
- These descriptions do not ring particularly true for speakers.

The “Past” in Yupik

- Unmarked form
 - Vakhtin 1989/2000 “neutral” or “non-future” or “recent past” (uses null morpheme - \emptyset)
 - Translates with ‘have’ or simple past
 - Our speakers render with simple past in English

The “Past” in Yupik

(5) Aglaataqa.

aglaat -∅ -aqa

walk -PRF -TR.1s.A+3s.O

‘I have carried it.’ (Vakhtin 2000: 71, ex. 1)

‘I brought it over.’ x3, ‘I took it over.’

The “Past” in Yupik

- @~:(i/u)ma-
 - Vakhtin 1989 “past”, translates with simple past
 - Dictionary, Jacobson (2001), De Reuse (1994) define as ‘to have V-ed or been V-ed’
 - De Reuse (1994) glosses PST and translates mostly with simple past, some with ‘have’

The “Past” in Yupik

(6) Aglaasimaaqa.

aglaat -ima -aqa

walk -PST -TR.1sA+3s.O

‘I carried it.’ (Vakhtin 2000: 71, ex. 2)

‘I have already brought it over’, ‘I have brought it (over)’, ‘I already took it over’, ‘I already brought it over’

The “Past” in Yupik

- @~–(g)kaa (intrans)/ @~–(g)kaqe (trans)
 - Dictionary, Jacobson, De Reuse: same as -ma- (define as perfect, gloss as perfect or simple past)

The “Past” in Yupik

(7) Neghegkaaguq.

neghe @~–(g)kaa -uq

eat -PST -IND(3s)

‘He has eaten.’ (Badten et al. 2008)

Vakhtin's "Double Tense Forms"

(8) Tagimanaaghtuq.

tagi	@~:(i/u)ma	@~ _f +naagh	-uq
come -PST		-FUT	-IND.3s
(V2000:73:10)			

By that time, it will be so that he will have come. Speaker's translation: He will surely have come by that time

- One of our speakers: 'He will have came'

Perfecthood?

- No obvious adverbial infelicity

(9) Aa aghulakaaguq (maaten).

'Yes, he (has/had) danced (a little while ago).'

(10) Aghulamaaq maaten.

'He (had) danced a little while ago.'

(11) Aghulakaaguq ighivgaq.

'He (had) danced yesterday.'

New Data

- Forms with *-ma* and *-kaa* are sometimes distinguishable in terms of the distance of the described event from speech time, but this is not always the case
 - more or less proximal in terms of time,
 - acquisition of knowledge of the event,
 - or other reasons for proximity or saliency with respect to the speaker.

Degrees of proximity: time

- *-ma* and *-kaa* seem to be used to mark more recent versus more distant past events, even when only considering out-of-context forms

- (12) Whangkuta pingayuni
 Whang-kuta pingayut -ni
 1 -ABS:UNPD:PL three -ABS:3REFLSGPOSS/PLPOSD
 estugwaghshiimaakut.
 ‘estuwaghte’- -(i/u)ma -(g/t)ugh -kut
 go.to.the.store -MA -INTR:IND -INTR:IND:1PL
 A: ‘We three went to the store.’
 B: ‘The three of us went to the store.’

- (13) Whangkuta pingayuni estugwaghtegkaagukut.
 ‘estuwaghte’- -(g)kaa -(g/t)ugh -kut
 go.to.the.store -KAA -INTR:IND -INTR:IND:1PL
 A: ‘We three had gone to the store (already).’
 B: ‘The three of us already went to the store.’

(14) Neghumaaq.

negh(e)– –(i/u)ma –(g/t)ugh –Ø

eat –MA –INTR:IND –INTR:IND:3SG

C: ‘He ate.’

D: ‘He has...he ate...he himself has eaten.’

(15) Neghekaaguq.

negh(e)– –(g)kaa –(g/t)ugh –Ø

eat –KAA –INTR:IND –INTR:IND:3SG

C: ‘He already ate.’

D: ‘More like already...he has already eaten.’

- In a naturalistically produced story about the speaker sewing a parka, we find the following:

(16)

Atkugek		ulimakaakek			
atkuk	–gek	ulima	–(g)kaqe	–ke	–k
parka	–ABS:UNPD:DU	make	–KAA:TR	–TR:PCPL	–TR:IND:3SGSBJ/3DUOBJ

esghaamaagka.

esghagh–	–(i/u)ma	–(g)agh	–gka
see	–MA	–TR:IND	–TR:IND:1SGSBJ/3DUOBJ

‘I saw the parka she made.’ (Lit. ‘The parka, she having made it, I saw it’)

Degrees of proximity: time

- To situate such forms in a more natural discourse, I presented speakers with several scenarios
- First scenario: a gathering
 - another individual was making plates of food for guests.
 - the individual asks the speaker whether they should make a plate for the speaker's son/daughter, and the speaker declines because the son/daughter has eaten.

(17)

Nakaa, ighneqa		neghumaaq.	
nakaa	ighnegh— —ka	negh(e)—(i/u)ma—(g/t)ugh	—Ø
no	son	—ABS:1SGPOSS/SGPOSD eat	—MA —INTR:IND—INTR:IND:3SG

‘No, my son ate.’

Comments: “Could have just happened, or earlier today, or whatever.”

(18)

Nakaa, ighneqa	neghegkaaguq	aghneq.
	negh(e)— —kaa —(g/t)ugh —Ø	aghneq
	eat —KAA —INTR:IND —INTR:IND:3SG	today

‘No, my son ate earlier today.’

Comments: “Seems farther in the past? Seems like ‘it’s done, it’s already done.’”

Degrees of proximity: time

- Second scenario: a boat was stolen from the beach!
(it was my colleague)
- Different contexts required either *–ma* or *–kaa*

(19)

Teglegumaa.

tegleg—(i/u)ma —(g)agh —(ng)a

steal —MA —TR:IND —TR:IND:3SGSBJ/3SGOBJ

‘He (/she/it) stole it (/him/her).’

(20)

Tugumaa.

tugu— (i/u)ma —(g)agh —(ng)a

steal —MA —TR:IND —TR:IND:3SGSBJ/3SGOBJ

‘He (/she/it) took it (/him/her).’

(21)

Teglekaqaa.

tegleg—(g)kaqe —(g)agh —(ng)a

steal —KAA:TR —TR:IND —TR:IND:3SGSBJ/3SGOBJ

‘He (/she/it) stole it (/him/her).’

(22)

Tugukaqaa.

tugu— (g)kaqe —(g)agh —(ng)a

steal —KAA:TR —TR:IND —TR:IND:3SGSBJ/3SGOBJ

‘He (/she/it) took it (/him/her).’

Degrees of proximity: time

- *-ma*:
- You watch the person steal the boat. You call your brother to tell him.
- You watch the person steal the boat. You walk into the store to tell someone.
- You're on the beach, and you see the person steal the boat. Someone drives up on their Honda and you tell them what happened.

Degrees of proximity: time

- *-kaa:*
- The next day, someone asks you what happened to the boat.
- You saw the boat get stolen yesterday. You walk into the store and someone asks you what happened.
- Translations/comments: “He already stole it. He has already taken it.” “It’s a fact, it’s stolen, he’s done, it happened.”

Degrees of proximity: time

- Does this have to do with perceived or absolute recency?
- Talking about a lunar roving vehicle left on the moon that broke in 1971: *-kaa*
- Take a time machine back to when it had just broken: *-ma*
- Take the time machine back to the present and tell your friend: *-ma*

Degrees of proximity: Knowledge/evidence and salience

- Back to the boat-taking:
- Your brother has heard that his boat just got stolen; you look and see that his boat is gone and call him to ask what happened to it. He answers:
 - *-kaa*
 - In this case, although the stealing happened recently, the news of it came through indirect rather than direct evidence

Degrees of proximity: Knowledge/evidence and salience

- Difficult to accommodate if the distinction between the two affixes is simply one of temporal recency
- Scenario volunteered by a speaker:
 - You heard through a chain of four people that your boat got stolen.

(23)

Tugukaqniit.

tugu–	–(g)kaqe	–ni	–(g)agh	–(ng)at
take	–KAA:TR	–say.that.one.is.V-ing	–TR:IND	–TR:IND:3PLSBJ/3SGOBJ
‘They (had) said he took/had taken it.’				

Or, if the event felt very immediate:

(24)

Tugumaniit.

tugu–	–(i/u)ma	–ni	–(g)agh	–(ng)at
take	–MA	–say.that.one.is.V-ing	–TR:IND	–TR:IND:3PLSBJ/3SGOBJ
‘They (have) said he took/has taken it.’				

Degrees of proximity: Knowledge/evidence and salience

- The meaning difference between *–ma* and *–kaa* depends on speaker perspective.
- Back to the social gathering

Degrees of proximity:

Knowledge/evidence and salience

- Speakers noted that if someone were to come up to you and ask if a third party has eaten, you would most likely answer with the form of ‘eat’ with *-kaa* (*neghekaaguq*).
- This fact could be consistent with a temporal account.
- However, an extension of this scenario was offered: “At the party—someone asks about my son. I’ll tell the first people that ask *Ighneqa neghegkaaguq aghneq*. Someone else asks, I say *Igneqa neghumaaq*.”

Degrees of proximity: Knowledge/evidence and salience

- An account of the difference between *-ma* and *-kaa* based only on temporal proximity would predict that both inquiries would be answered with the same form (referring to the same eating event).

Degrees of proximity: Knowledge/evidence and salience

- Instead, *-ma* is used to refer to an event that is more mentally or cognitively “proximal” for a non-temporal reason
- Here, once the topic has been broached initially, the speaker adjusts to the more proximal form, reflecting the new saliency of the event in question.

Discussion

- The notion of *cognitive proximity* (if we want to call it that) accounts for this diverse dataset

Discussion

- Bella (2005), cognitive-pragmatic treatment of deictics in Modern Greek
 - Argued to be sensitive to proximity vs. distance from the deictic center
 - Argument within Cognitive Grammar (e.g. Langacker 1987, 2001) that a speaker's marking of a particular individual or event as "relevant" to the discourse involves "a procedure of cognitive comparison in which s/he becomes involved" (Bella 2005: 42).
 - Something like this process also seems to be at work in the choice between Yupik *-ma* and *-kaa*.

Discussion

- Semantic or morphosyntactic category?
 - Similarity to “remoteness” distinctions in tense (e.g. Bantu, Botne 2006, Cable 2013)
 - South Baffin Inuktitut multiple past tenses (Hayashi 2011)

Discussion

- Tense? Neither is obligatory (or terribly common) in describing past situations—instantiating obligatory Tense head unlikely
- Grammatical aspect?
- Evidentiality? (tense/aspect distinctions develop into or from evidentiality and related meanings—Aikhenvald 2004, Botne 2012)

Discussion

- Distributionally, none of these categories are obvious candidates
- But the categorial status of most Yupik affixes is still an open question

Discussion

- Of course possible (and perhaps even likely, given the proximity of the affixes to the root compared to other tense/aspect affixes) that these are better considered to be derivational morphemes

Photo courtesy Lane Schwartz

Conclusion

Summing up

- New data from speakers in Sivuqaaq indicate that we don't have the full story about the “past” morphemes –*ma* and –*kaa*
- –*ma* is used in describing “closer” events; –*kaa* events that lack proximity in degree of knowledge, evidence, or salience
- The categorial status remains uncertain

Implications for language maintenance

- Lower-frequency affixes run the risk of falling out of the language more quickly
- Naturalistic elicitation and existing corpus data may not contain enough instances to reconstruct the meaning differences if they are lost
- Goal is to document so that the uses could be reconstructed

Next steps

- Continued in-depth morphosyntactic and semantic elicitation
 - Effects of Aktionsart/situation type?
 - -ma supposed to show change-of-state effects; have not seen
 - Transitivity?
 - Lexical items?
- Further naturalistic elicitation
- Understanding the categorial status of these pieces is key to the analysis of the wider tense/aspect/mood/modality system in Yupik (and beyond)

- Aikhenvald, Alexandra Y. 2004. *Evidentiality*. Oxford UP.
- Badten, Linda Womkon (Aghnaghaghik), Vera Oovi Kaneshiro (Uqiitlek), Marie Oovi (Uvegutu), & Christopher Koonooka (Petuwaq). 2008. *St. Lawrence Island / Siberian Yupik Eskimo dictionary*. Fairbanks, AK: Alaska Native Language Center, University of Alaska Fairbanks. First edition 1987.
- de Reuse, Willem J. 1988. Studies in Siberian Yupik Eskimo morphology and syntax. Ph.D. diss., University of Texas at Austin.
- de Reuse, Willem J. 1992. The role of internal syntax in the historical morphology of Eskimo. In M. Aronoff (ed.) *Morphology now*. Albany: State University of New York Press. 163-178.
- de Reuse, Willem J. 1994. *Siberian Yupik Eskimo: The language and its contacts with Chukchi*. *Studies in Indigenous Languages of the Americas*. Salt Lake City, Utah: University of Utah Press.
- de Reuse, Willem J. 2001. The great Yupik mood swing, and its implications for the directionality of semantic change. In Mary Adronis (ed.), *CLS 37: The Panels*. Chicago: Chicago Linguistic Society. 239-247.
- de Reuse, Willem J. 2006. Polysynthetic Language: Central Siberian Yupik. In Keith Brown (ed.) *Encyclopedia of Language & Linguistics, Second Edition*, volume 9. Oxford: Elsevier. 745-748.
- de Reuse, W. J. 2009. Polysynthesis as a typological feature: An attempt at a characterization from Eskimo and Athabaskan perspectives. In Marc-Antoine Mahieu & Nicole Tersis (eds.) *Variations on Polysynthesis: The Eskaleut languages*. Amsterdam and Philadelphia: John Benjamins.
- Jacobson, Steven A. 1977. *A grammatical sketch of Siberian Yupik Eskimo as spoken on St. Lawrence Island, Alaska*. Fairbanks, AK: Alaska Native Language Center.
- Jacobson, Steven A. 1985. Siberian and Central Yupik Prosody. In Michael E. Krauss (ed.), *Yupik Eskimo prosodic systems: Descriptive and comparative studies*. Fairbanks, AK: Alaska Native Language Center. 25-46.
- Jacobson, Steven A. 1990. Comparison of Central Alaskan Yup'ik Eskimo and Central Siberian Yupik Eskimo. *International Journal of American Linguistics*, 56:2. 264-286.
- Jacobson, Steven A. 1994. The 'observational construction' in Central (Alaskan) Yup'ik Eskimo and (Central) Siberian Yupik Eskimo. *Acta Linguistica Hafniensia* 27. 261-274.
- Jacobson, Steven A. 2001. *A Practical Grammar of the St. Lawrence Island/Siberian Yupik Eskimo Language*. Fairbanks, AK: Alaska Native Language Center, University of Alaska Fairbanks. 2nd edn.
- Jacobson, Steven A. 2006. The participial oblique, a verb mood found only in Nunivak Central Alaskan Yup'ik and Siberian Yupik. *Études/Inuit/Studies* 30(1). 135-156.
- Krauss, Michael E., Jeff Leer, Steven A Jacobson & Lawrence Kaplan (eds.). 1985. *Yupik Eskimo prosodic systems: Descriptive and Comparative studies*. Fairbanks, AK: University of Alaska.
- Mithun, Marianne. 1999. *The Languages of North America*. Cambridge University Press, UK.
- Nagai, Kayo. 2001. *Mrs. Della Waghiyi's St. Lawrence Island Yupik texts with grammatical analysis* (Endangered Languages of the Pacific Rim A2-006). Kyoto, Japan: Nakanishi Printing.
- Schwalbe, Daria Morgounova. 2017. Sustaining linguistic continuity in the Beringia: Examining language shift and comparing ideas of sustainability in two Arctic communities. *Anthropologica* 59(1). 28-43.
- Vakhtin, Nicolai B. 2009. How synchronic is synchronic analysis? Siberian Yupik agglutinative morphology and language history. In Marc-Antoine Mahieu & Nicole Tersis (eds.), *Variations on Polysynthesis: The Eskaleut Languages*, vol. 86 Typological Studies in Language, 65-79. Amsterdam: John Benjamins.

Case study in progress:

-ma vs. -kaa

- -ma: (@~:(i/u)ma):
- Proto Inuit-Yupik form *(u)ma-*, with the meaning “perfective (state of having done s.th.)”
 - “probably alternating with *ima-* after t bases (if not *cima-*) and *uma-* after other C in [Proto Inuit-Yupik] as still in [the Yupik languages]” (Fortescue, et al. 2010: 453).
- Remnants across the language family with meanings of
 - “state of having V-ed or been V-ed” (Alutiiq, Central Alaskan Yup’ik),
 - past tense (Naukan, Sirenik),
 - evidential (Seward Peninsula Inuit),
 - perfective state (North Alaskan Inuit, Western Canadian Inuit, Eastern Canadian Inuit, Greenlandic Inuit), and ‘evidently’ or ‘apparently’ (Eastern Canadian Inuit, Greenlandic Inuit).
- Fortescue, et al. note the Proto-Eskimo form *(u)ma-*, with the meaning “perfective (state of having done s.th.)”, “probably alternating with *ima-* after t bases (if not *cima-*) and *uma-* after other C in [Proto Eskimo] as still in [the Yupik languages]” (Fortescue, et al. 2010: 453). There are remnants across the language family with meanings of “state of having V-ed or been V-ed” (Alutiiq, Central Alaskan Yup’ik), past tense (Naukan, Sirenik), evidential (Seward Peninsula Inuit), perfective state (North Alaskan Inuit, Western Canadian Inuit, Eastern Canadian Inuit, Greenlandic Inuit), and ‘evidently’ or ‘apparently’ (Eastern Canadian Inuit, Greenlandic Inuit).

Case study in progress:

-ma vs. -kaa

- -kaa: (@~-(g)kaa): Apparent innovation on the Proto Yupik-Sirenik side; active in Yupik, possible remnant in Central Alaskan Yup'ik
- Fortescue, et al.: Yupik -*kaq* “passive participle, also transitive past tense marker” derives from Proto Inuit-Yupik *kaR* “passive participle”. Only remnants of this form exist in Alutiiq, Central Alaskan Yup'ik, Naukan, and Seward Peninsula Inuit.
- North Alaskan Inuit, Western Canadian Inuit, and Greenlandic Inuit show forms having to do with passive participles, while Eastern Canadian Inuit shows a form meaning ‘durable result of action’. (Fortescue, et al. 2010: 442).
- Proto-Yupik/Sirenik *kšaq* ‘past participial’ is listed as the relevant form for Yupik *kaq* ‘one that has -ed’ “also a past tense marker; *kaa-* ‘have -ed’” (Fortescue, et al. 2010: 445).
- Only Sirenik is given as having a cognate of this form, meaning ‘one that has -ed’. The related affix in Central Alaskan Yup'ik is *(g)aq* ‘that which has been V-ed’ (Jacobson 1984: 739); as far as I know there is no non-participial form equivalent to Yupik's -*kaa*/-*kaq*.
- To my knowledge, St. Lawrence Island/Central Siberian Yupik is the only language in the family to have the distinction between -*ma* and -*kaa* as tense-like markers.