

The Syntax of Negation in St. Lawrence Island/Central Siberian Yupik*

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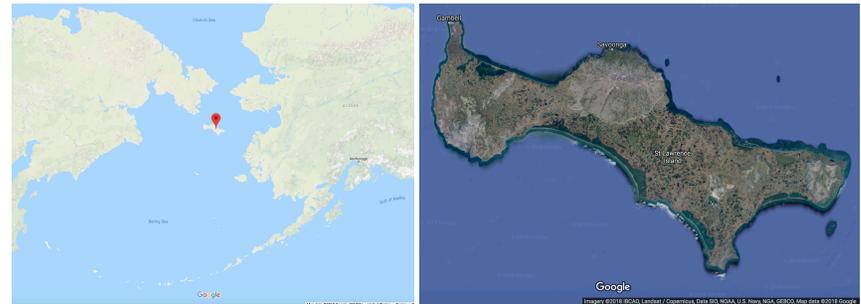
1. Introduction

1.1 Overview

- In this paper we examine the various morphosyntactic realizations of verbal negation in St. Lawrence Island/Central Siberian Yupik (ISO 639-3 *ess*; here ‘Yupik’), an endangered polysynthetic language of the Bering Strait region.
- We first consider the data and discuss the multiple-slot negation scheme proposed by de Reuse (1994).
- We then offer an alternate approach to negation in Yupik that is more compatible with Minimalist assumptions.
- This analysis accounts for the two possible surface locations for negation morphology by positing a feature for rhetorical questions that triggers head movement, resulting in distinct surface structures.
- Our analysis accounts for both surface positions of negation while providing a principled reason for the limitations found on one of those positions.
- Otherwise uncited data is from the authors’ original fieldwork with speakers in Gambell, St. Lawrence Island, AK.

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- Today:
 - Background on Yupik
 - Facts of verbal negation and de Reuse’s (1988/1994) analysis
 - Our analysis
 - Conclusion and future work



1.2 Background: St. Lawrence Island Yupik

- (Central) Siberian Yupik / St. Lawrence Island Yupik / Chaplinski Yupik; Yupigestun, Akuzipik
- Inuit-Yupik-Unangan¹ family, Yupik branch (with (Central) Alaskan Yup’ik, Alutiiq/Sugpiaq, Naukan)
- Spoken on Sivuqaq/St. Lawrence Island (Sivuqaq/Gambell and Sivungva/Savoonga, ~500-1100 speakers out of ~1300 Yupiget) and the easternmost part of the Chukotka Peninsula (~200 speakers out of ~800-1200 Yupiget); ~300-400 Yupiget residing on the Alaskan mainland (Schwalbe 2017) with some speakers among them
 - 1980s nearly all SLI Yupiget speaking Yupik at home, learning English in school
 - Dramatic shift starting in mid-1990s
 - Now maybe half? of children learning/speaking Yupik at home

¹ Often termed Eskimo-Aleut.

- Existing English-language linguistics literature includes:
 - A two-volume dictionary (Badten, et al. 1987), a pedagogical grammar (Jacobson 2001); 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).
- 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).
- Key grammatical points
 - Ergative-absolutive, largely free word order, polysynthetic, noun incorporation
 - 4 persons, 3 numbers, no gender
 - N and V “bases”, extensive system of demonstratives, “particles”/adverbs (many borrowed from Chukchi)
 - 600+ (largely) derivational suffixes (“postbases”), fairly fusional inflectional suffixes, enclitics
 - (“Productive non-inflectional concatenation” de Reuse 2009, pp. 21-22)
 - Generally ROOT-derivation-Neg-TMMA-Person/Number Infl.
- Representative example:

(1) Angyagllangllaghyugtuq.
 angyaq –ghllak² –ngllagh –~r yug –~r(g/t)ugh –Ø
 boat -big.N³ -make.N -want.to.V -IND₂ -3sS
 ‘He wants to make a big boat.’ (Jacobson 2001, p. 6)

² We use the notation established by Badten et al. (1987/2008) and Jacobson (2001) in their dictionary and subsequent grammar. A summary of symbol meanings is presented in Appendix A.

³ Abbreviations are as follows: AB – absolutive case; d – dual; FUT.NEG – future negative; IND(₂) – indicative; INP – intransitive participial; INT – interrogative; MD – modalis case; N – Noun; NEG.PROG – negative progressive; NEG.PST – negative past; O – object agreement; PST – past; s – singular; S – subject agreement; SUB – subordinative; V – verb

2. Verbal Negation in Yupik

- The morphosyntax of verbal negation is particularly underdescribed. Here we present an overview of negation strategies compiled from the existing literature.⁴
- The most ubiquitous negativizing suffix is *-@-nghite-* ‘to not V’. This postbase is used in all moods except the subordinative (Jacobson 2001):

(2)a. Qiyaaq.
 qiya –~r(g/t)ugh –Ø
 cry -IND -3sS
 ‘He [/she/it] cried.’ (Jacobson 2001, p. 43)

b. Qiyanghituq.
 qiya –@-nghite –~r(g/t)ugh –Ø
 cry -to.not.V -IND -3sS
 ‘He [/she/it] didn’t cry.’ (Badten et al. 1987, vol. 2, p. 653)

- The other common general negativizer is *--llghite-*⁵ ‘to not V’, which de Reuse notes to be interchangeable with *-@-nghite-* (de Reuse 1994, p.167):

(3)a. Neghaa.
 negh<e> –~(g)agh –:(ng)a
 eat -IND -3sS.3sO
 ‘He [/she/it] ate it.’ (Badten et al. 1987, vol. 2, p. 610)

b. Neghellghitaa.
 negh<e> –llghite –~(g)agh –:(ng)a
 eat -to.not.V -IND -3sS.3sO
 ‘He [/she/it] didn’t eat it.’ (Badten et al. 1987, vol. 2, p. 640)

- In constructions utilizing the subordinative mood, the negative subordinative marker *--gpe-* ‘not V-ing’ replaces either of these general negativizers:⁶

⁴ There are a number of semantically negative postbases—in that their connotation is negative but qualified in some way or not strictly negative—but these are not discussed here as they fall out of the scope of the current study. For the curious, these postbases are given in Appendix C.

⁵ This postbase is possibly a lexicalized combination of the postbases *--lleq-* ‘act of V-ing’ and *~:(ng)ite-*, a nonproductive negativizer meaning ‘to not be V’ (Badten et al. 1987, vol. 2, p. 640).

⁶ Though *--gpe-* appears to function as a Class-free postbase, Jacobson (2001) regards it as a negative marker, since it is nonproductive and only occurs with the subordinative mood.

(4) qavaghpənani
 qavagh -gpe -+na -ni
 sleep -not.V-ing -SUB -4sS.SUB
 ‘without sleeping’ (Jacobson 2001, p. 102)

- Compare:

(5) Qavanghituq.
 qavagh -@-nghite -~(g/t)ugh -Ø
 sleep -to.not.V -IND -3sS
 ‘He [she/it] didn’t sleep.’ (Jacobson 2001, p. 43)

- These three morphemes account for the majority of syntactic negation in Yupik.

3. Negation with TMMA suffixes

3.1 De Reuse’s postbase classes

- De Reuse (1988, 1994) proposes four postbase classes based on their positional occurrence in the morphosyntax (syntactic and semantic criteria also contribute to the grouping):
 - 1 (“pre-AUX”) (various derivation, aspect, voice)
 - 2 (“AUX”) (modality, past tense, progressive, future, evidential)
 - 3 (“Class-free”)
 - 4 (“NEG”)⁷
 - In this category de Reuse includes postbases that encode syntactic negation, as well as those with negative semantic values like -yīite- ‘to V poorly’.
 - Based on de Reuse’s definitions (see Appendix B), we can infer the following hierarchical structure for postbases:
- (6) (Class-free)-Pre-AUX-(Class-free)-NEG₁-(Class-free)-AUX₁₋₅-(NEG₂)-(Class-free)
 - If we reduce this hierarchy to consider only the most common position of each class, we arrive at the following:
- (7) PreAUX-(Class-free)-NEG₁-AUX-(NEG₂)

- In De Reuse’s autolexical syntax-style morphological component, this translates into the presence of two morphological NEG nodes. We explore an alternate, more Distributed-Morphology-style (Halle & Marantz 1993) morphosyntactic analysis below.

3.2 Interactions with other postbases

- A negatizer in the first position (“NEG₁” for de Reuse) may sometimes be followed by a tense or aspectual postbase in the AUX position such as -@~:(i/u)ma-. For instance:
- (8) Angyallghisimalghiiit.
 angyagh -@-llghite -@~:(i/u)ma -@-lghii -t
 go.boating -NEG -PST -INP -3pS
 ‘They did not go boating.’ (de Reuse 1994, p.104, ex. 66)
- Examples are also attested in which the negatizer (in “NEG₂”) follows the TMA postbase that is in the “AUX” position, but only in the interrogative mood, and always with what de Reuse refers to as a rhetorical interpretation (9a,b). This order is unavailable otherwise (9c).
- (9) a. Puughsimanghitaki?
 puughte -@~:(i/u)ma -@-nghite -~(g/t)a -ki
 fool -PST -NEG -INT -3sS.3pO
 ‘Is it not the case that he fooled them?’ (rhetorical; de Reuse 1994, p. 105, ex. 69)
 Our speakers: “Kind of like a question”, “A guess”
- b. Esghaghuyugaqenghisiki?
 esghagh -@~:iyug -~(g)aqe -@-nghite -~(t)zi -ki
 see -want.to.V -PROG -NEG -INT -2sS.3pO
 ‘Do you not want to see them (your parents)?’ (rhetorical) (de Reuse 1994; pg. 106:74)
 Our speakers: ‘You don’t want to see them, (do you)?’ (rhetorical) (“like a guess”)
- c. *Angyamanghillghiiit.
 angyagh -@~:(i/u)ma -@-nghite -@-lghii -t
 go.boating -PST -NEG -INP -3pS
 Intended: ‘They did not go boating.’
- Several lexicalized combinations of tense/aspect+negative also exist. These postbases occur before the mood marker. These do not lead to a rhetorical interpretation in the interrogative.

⁷ De Reuse’s (1988) definitions of the four postbase classes are summarized in Appendix B.

- “Future Tense” negativizer *-@~naanghite-* ‘to not V in the future’

(10) *Neghnaanghituq.*
negh -@~naanghite --(g/t)ugh -Ø
eat -FUT.NEG -IND -3sS
 ‘He won’t eat.’ (Jacobson 2001, p. 98)

- “Past Tense” negativizer *-@~:(i/u)mangite-* ‘to not V in the past’

(11) *Esghaamangisinga?*
esghagh -@~:(i/u)mangite --(t)zi -nga
see -NEG.PST -INT -2sS.1sO
 ‘Didn’t you see me?’ (de Reuse 1994, p. 107, ex. 77)

- “Progressive” negativizer *-@~:(ng)igate-* ‘to not be V-ing, to never V’ (no longer productive according to de Reuse (1994, p. 106))

(12) *Esghaghuyugigasiki?*
esgagh -@~ryug -@~:(ng)igate --(t)zi -ki
see -want.to.V -NEG.PROG -INT -2sS.3pO
 ‘You don’t like to see them?’ (Our speaker: “a plain question”)

- In each of these cases, what would have been a sequence of *Neg₁-AUX_{tense/aspect}* seems to be replaced by the corresponding lexicalized postbase.⁸
- Other than the subordinative marker discussed above, only the optative mood requires a specific negative marker, *-fqa(a)*.⁹

- The negative optative is generally interpreted as an emphatic ‘don’t V!’, as seen in (13):

(13) *Kenifqaavek*
kenigh -fqa(a) --vek
point -don’t.V -OPT.2sS
 ‘(You) don’t point!’ (Jacobson 2001, p. 67)

⁸ These lexicalized negativizers seem to occupy *Neg*, as they seem to be compatible with additional tense/aspect postbases, though more data is needed to be conclusive. If so, and if these are really decomposable into a fusion of tense/aspect + negation, an explanation would be needed for how these arrive to occupy (lower) *Neg*.

⁹ This marker takes a specific set of inflectional endings that are variations on the possessed relative nominal endings (Jacobson, 2001). A full list of the endings can be found in Appendix D.

- No other negative postbases or markers are present in the literature to our knowledge, though more may be discovered or decomposed from larger postbases in the future.¹⁰

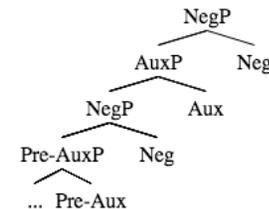
4. Single NEG head analysis

- As previously mentioned, under de Reuse’s (1994) proposal, the order in which Yupik postbases attach to the base is governed by a hierarchical slot system, which we have schematized in shortened form as follows:

(14) *PreAUX-(Class-free)-NEG₁-AUX-(NEG₂)*

- It is clear from the data that negation surfaces at two distinct locations in the concatenative morphology.
- Is this reflective of the underlying (morpho)syntax?
 - If we take a Distributed Morphology-style approach, the surface morphology should reflect the output of the narrow syntax and any morphology-specific adjustments.
 - Two surface locations for negation could (in principle) indicate two functional *Neg* heads in the syntax, as in the abbreviated tree in (15):

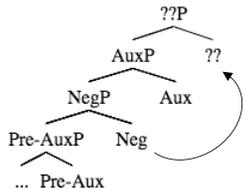
(15)



- Or, alternately, one head could be present, with some kind of movement or readjustment resulting in the second surface location of negation.

¹⁰ A summary of the negativizers discussed in the current study along with their common English translations is provided in Appendix C.

(16)



- Predictions of the two-head hypothesis:
 - Positional: The projection of two Neg phrases in the syntax would predict, barring any sort of semantic clash, the ability to employ more than one negativizer within the same verb word
 - Semantic: The presence of two Neg heads in the syntax would predict the possibility of negativizers in the different positions scoping (leftward)¹¹ over different parts of the verb word, yielding predictably different interpretations
- Consider an alternative, that only one Neg head merges in the syntax, and any other surface position represents some sort of adjustment:

(17) **Single Neg Head Hypothesis**

All verbal negation underlyingly occupies NEG₁

Corollary: Negation that surfaces in a further rightward position arrives there via movement

- Predictions of the Single Neg Head Hypothesis:
 - Positional: Only one negativizer should be possible per verb word
 - Semantic: Since an alternate surface position represents the result of movement, a verb word displaying this should reflect some kind of specific interpretable semantic feature not found in verb words with canonical (low) negation
- Our data support the Single Neg Head Hypothesis.

¹¹ See de Reuse (1992, 2006) on the semantic scope of postbases over the material to their left and e.g. Mithun (1999) on the correlation between morphological ordering and semantic scope in Central Alaskan Yup'ik.

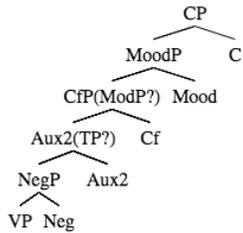
- First, two negative suffixes are unattested in a single verb word:

(18) a. *angyagh -@-llghite -@~:(i/u)ma -@-nghite -@-lghii -t
 go.boating -NEG -PST -NEG -INP -3pS

b. *angyagh -@-nghite -@~:(i/u)ma -@-llghite -@-lghii -t
 go.boating -NEG -PST -NEG -INP -3pS
 Intended: 'He/she didn't not go boating'

- Second, recall that “high” negation only occurs in interrogatives with a rhetorical interpretation (9a-c).
 - Recall too that when a lexicalized negativizer is involved (presumably occupying the lower Neg position), no rhetorical interpretation is found (11, 12)
- Based on these facts, we propose that in rhetorical interrogatives, movement of Neg is triggered from the “NEG₁” position into a position dominating the “AUX₂” head.
 - The rhetorical interpretation is available when Neg moves to a higher position.
- Next: to which head does the negation move? (Answering this question with certainty will require much more syntactic and semantic documentation, but we can speculate about the movement here based on de Reuse’s work.)
- If we assume:
 - Something like Compton’s (2010) analysis of Inuit, in which a CP dominates the structure of a clause (which may be contained within a single verb word); and
 - A DM-like model in which morphemes are instantiations of syntactic terminal nodes; and
 - We may also assume for now that the inflectional endings are in C, as in Compton’s analysis;
- Then we might arrive at a structure like that in (19), for a sentence like that in (8) (repeated here as 20):

(19)

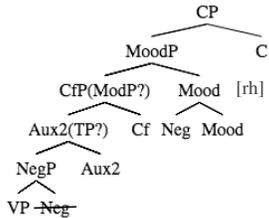


(20) Angyallghisimalghiiit.

angyagh -@-llghite -@~:(i/u)ma -@-lghii -t
 go.boating -NEG -PST -INP -3pS
 ‘They did not go boating.’ (de Reuse 1994, p.104, ex. 66)

- Then, in rhetorical questions, we propose that a strong feature of the interrogative mood head (call it [rhetorical] or [rh], in the same vein as [wh]), when present, triggers movement of Neg. We then have the structure shown in (21), for a sentence like that in (9a) (repeated here as 22):

(21)



(22) Puughsimanghitaki?

puughte -@~:(i/u)ma -@-nghite --r(g/t)a -ki
 fool -PST -NEG -INT -3sS.3pO
 ‘Is it not the case that he fooled them?’ (rhetorical) (de Reuse 1994, p. 105, ex. 69)

5. Conclusion and future work

- We have proposed that the locus of verbal negation in St. Lawrence Island Yupik is a single Neg head in the syntax, with a second surface location resulting from movement triggered by a [rh] feature in the interrogative mood.
- This analysis accounts for the surface positions of negation within the verb word and provides a motivation for the location of negation within the word in rhetorical questions.
- Much more semantic and syntactic fieldwork is necessary to be sure of the nature and location of the heads instantiated by those pieces we have been referring to here as tense, aspect, and mood. This could affect the details of our analysis.
- Future documentation will also focus on completing the paradigms of logical possible combinations of postbases and negativizers.

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Appendix A: Derivational symbol key

(Compiled from Steven A. Jacobson's *A Practical Grammar of the St. Lawrence Island/Siberian Yupik Eskimo Language*)

Symbol	Meaning	Notes
~f	drop final e ¹	Triggers e-hopping when possible
~sf	drop semi-final e ¹	'Semi-final e ' is followed by another letter (always gh or g) on a base; triggers e-hopping when possible
~	drop final and semi-final e ¹	Triggers e-hopping when possible
-w	drop weak final Cs; keep strong final Cs	Strong: g, ghw, w Either: gh ²
-	drop all final Cs (strong and weak)	
+	add ending as presented	
	uvular dropping	After suffixation, if gh is between a single full vowel and e , drop gh and assimilate e to previous full vowel V/ gh/e -> VV
:		
@	modification of base-final te	See below.
()	segment(s) used optionally, if the environment calls for it ³	ex. absolutive plural ending: ~sf-w:(e)t e is used if base ends in strong C; otherwise, if base ends in V, only add t
*	unattested form (if word-initial); unpredictably strong gh (if word-final)	
<>	segment between brackets only appears certain forms of the word	ex. yu<u>k - 'person' Citation form: yuuk Base: yug-
2	dual number	"rocks ₂ " (dual) vs. "rocks" (plural)

¹e dropping does not occur if deletion would result in an illegal cluster (three Cs word-medially or two Cs word-initially)
²**gh**, if preceded by e or two (full) vowels, is strong. All other **gh**-s are weak except for a small set which are unpredictable from word features. Jacobson marks these unpredictable strong **gh**-s with an asterisk, "**", after the citation or base form.
³generally, when an ending includes two segments in parentheses, the first is used with bases ending in V or VV, and the second with bases ending in C.

Types of te-modification (@)

Most suffixes that trigger final **te** modification are also final-e deleting, so it is more succinct to describe the effect on **t** alone.

Suffix type	Modification	Example
initial vowel (always i)	t >> s	Base: tuqute- “to kill” Suffix: @igate- “to never V” Combined: tuqsigataa “he never kills it”
initial te	deletes base-final t	Base: tuqute- “to kill” Suffix: @tegg- “you _{pl} V it!” Combined: tuqtegg- “you _{pl} kill it!”
initial labial (v, m)	keep post-vocalic t OR delete post-consonantal t , resulting cluster devoices	<i>Base-final V</i> Base: tuqute- “to kill” Suffix: @vagilga- “before V-ing” Combined: tuqutvagilgagu “before he kills/killed it” Suffix: @miqe- “to compel one to V” Combined: tuqutmiqaa “he compelled one to kill it” <i>Base-final C</i> Base: ingaghte- “to lie down” Suffix: @vagilga- “before V-ing” Combined: ingaghfagilgan “before he lies/lay down” Suffix: @miqe- “to compel one to V” Combined: ingaghmiqaa “he compelled him to lie down”
initial apical (l, n, y, r, z)	delete t , apical (and adjacent Cs if in a cluster) devoices	Base: tuqute- “to kill” Suffix: @naqe- “to be going to V” Combined: tuqunnaqaa “he is going to kill it” Base: qelpeghte- “to open” Suffix: @naqe- “to be going to V” Combined: qelpeghhnaqaa “he is going to open it”
initial velar (k)	<i>Dialectal differences</i> Savoonga: t >> s Gambell: unchanged <i>All speakers</i> negative/expanded base: t >> l post-consonantal: keep te	Base: tuqute- “to kill” Suffix: @ka- “if/when one Vs” Combined: tuquskagu / tuqutkagu “if he kills it” <i>negative/expanded base</i> Base: neghenghite- (negh<e> + @-nghite-) “to not eat” Suffix: @ka- “if/when one Vs” Combined: neghenghilkagu “if he doesn’t eat it” Base: qelpeghte- “to open” Suffix: @ka- “if/when one Vs” Combined: qelpeghtekagu “if he opens it down”

Appendix B: Postbase Classes (de Reuse 1988)

De Reuse’s (1988) definitions of the four postbase classes are summarized below:

Class	Possible Ordering	Semantic/Syntactic Value
PreAUX	PreAUX - AUX	- Addresses expectations of speaker or hearer. - Aspect. - Comparison. - Derivation of adjectival and emotional verbs. - Manner and ease of accomplishment. - To go and V /try to V/want to V/become a V-er. - To pretend to V/act like V. - Voice.
AUX	AUX ₁ - AUX ₂ - AUX ₃ - AUX ₄ - AUX ₅	- Modality (1) - Past tense (2) - Progressive aspect (3) - Future tense and Frustrative (4) - Evidential and Imputative (5)
Class-free	PreAUX - Class-free* Class-free - PreAUX NEG - Class-free	“qualitative or quantitative judgment[s] of the speaker on the action or state expressed by the verb, or on the subject of the verb.” (de Reuse, 1988)
NEG	PreAUX - NEG* AUX - (NEG)	- Negation

*most common position

Appendix C: Other Negative Postbases

Syntactic Negativizers			
Type	Negativizer	Translation	Source
General	@- <i>nghite</i> -	'to not V'	De Reuse, 1994
	- <i>llghite</i> -	'not V'	De Reuse, 1994
Subordinative	- <i>gpe</i> -	'not V-ing'	Jacobson, 2001
Optative	- <i>fqa(a)</i> + personal ending (- <i>vek</i> , - <i>tek</i> , - <i>fsi</i> , - <i>an</i> , - <i>gkenka</i> , - <i>ita</i> , - <i>ma</i> , - <i>mtung</i> , - <i>mta</i>)	'don't V'	Jacobson, 2001
Tense/Aspect + NEG	@- <i>maanghite</i> - (- <i>naagh</i> - 'to be going to V eventually' + @- <i>nghite</i> -)	'to not V in the future'	De Reuse, 1994
	@-:(<i>i/u</i>) <i>mangite</i> - (@-:(<i>i/u</i>) <i>ma</i> - 'Perfect' + ~:(<i>ng</i>) <i>ite</i> - 'to not be V' nonproductive)	'to not V in the past'	De Reuse, 1994
	@-:(<i>ng</i>) <i>igate</i> - (-(<i>g</i>) <i>aqe</i> - 'Progressive Aspect' + @- <i>nghite</i> -)	'to not be V-ing, to never V'	De Reuse, 1994

Semantic Negativizers			
Type	Negativizer	Translation	Source
General	~:(<i>ng</i>) <i>ite</i> ¹²	'to not have N; to lack N; lack the quality of V'	Badten et al., 1987
	@- <i>nanigh</i> -	'cease V-ing'	Jacobson, 2001
	@- <i>yagh</i>	'V in vain'	Jacobson, 2001
Optative	@- <i>f</i> - <i>nasiigh</i> -	'to put off V-ing; to V angrily'	Badten et al., 1987
	- <i>paqagh</i> -	'don't V too much'	De Reuse, 1994
	@- <i>f</i> ⁺ - <i>yaquna</i> -	'don't ever V!'	De Reuse, 1994
Subordinative	~ <i>f</i> - <i>ngu</i> - (replaces ~:(<i>ng</i>) <i>ite</i>)	'without N or V; lacking N or V'	Jacobson, 2001
	- <i>pagpe</i>	'to not V too much'	De Reuse, 1994

Appendix D: Negative Optative Endings (Jacobson, 2001)

Ending	+Negative Marker	Person/number
- <i>vek</i>	- <i>fqaavek</i>	2s
- <i>tek</i>	- <i>fqaatek</i>	2d
- <i>fsi</i>	- <i>fqaafsi</i>	2p
- <i>an</i>	- <i>fqaan</i>	2(s, d, or p) - 3s
- <i>gkenka</i>	- <i>fqaagkenka</i>	2(s, d, or p) - 3d
- <i>ita</i>	- <i>fqiita</i>	2(s, d, or p) - 3p
- <i>ma</i>	- <i>fqaama</i>	2(s, d, or p) - 1s
- <i>mtung</i>	- <i>fqaamtung</i>	2(s, d, or p) - 1d
- <i>mta</i>	- <i>fqaamta</i>	2(s, d, or p) - 1p

¹² de Reuse (1994) lists a multitude of negativizing postbases (pp. 165-167), but most can be further decomposed into a modal/adverbial postbase + general negativizer.