Negation and Antonymy in Tlingit

Seth Cable  
University of Massachusetts Amherst

1. The Central Puzzle: Negation in Negative Stative Predicates of Tlingit

In the Tlingit language (Na-Dene; Alaska, British Columbia, Yukon), there is a small but highly frequent set of stative, gradable antonym pairs, where the negative antonym is formed from:

(i) The root of the positive antonym
(ii) The negation marker tiel (tel)
(iii) An additional (unproductive) morphological operation. 2

(1)  

<table>
<thead>
<tr>
<th>Positive Predicate</th>
<th>Negative Predicate</th>
<th>Negation of Positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. yak'ei</td>
<td>tiel ush'k'e</td>
<td>tiel uk'ey</td>
</tr>
<tr>
<td>0CL. good</td>
<td>NEG IRR.shCL.good</td>
<td>NEG IRR.0CL. good</td>
</tr>
<tr>
<td></td>
<td>It is good.</td>
<td>It is not good.</td>
</tr>
<tr>
<td>b. yaa kudzigei</td>
<td>tiel yaa kushge</td>
<td>tiel yaa kuqge</td>
</tr>
<tr>
<td>sCL.smart</td>
<td>NEG IRR.shCL.smart</td>
<td>NEG IRR.sCL.smart</td>
</tr>
<tr>
<td></td>
<td>He is smart.</td>
<td>He is not smart.</td>
</tr>
<tr>
<td>c. sxe'itl</td>
<td>tiel sxe'itl</td>
<td>tiel uxe'itl</td>
</tr>
<tr>
<td>ICL.lucky</td>
<td>NEG IRR.shCL.lucky</td>
<td>NEG IRR.ICL.lucky</td>
</tr>
<tr>
<td></td>
<td>She is lucky.</td>
<td>She is not lucky.</td>
</tr>
<tr>
<td>d. Yanek'</td>
<td>tiel usnayek'</td>
<td>tiel unayek'</td>
</tr>
<tr>
<td>OCL.tidy</td>
<td>NEG IRR.shCL.tidy</td>
<td>NEG IRR.OCL.tidy</td>
</tr>
<tr>
<td></td>
<td>It is tidy.</td>
<td>It is not tidy.</td>
</tr>
<tr>
<td>e. k'asiglo</td>
<td>tiel y'eshgù</td>
<td>tiel k'eqigù</td>
</tr>
<tr>
<td>sCL.fun</td>
<td>NEG IRR.shCL.fun</td>
<td>NEG IRR.sCL.fun</td>
</tr>
<tr>
<td></td>
<td>It is fun.</td>
<td>It is not fun.</td>
</tr>
<tr>
<td>f. litseeen</td>
<td>tiel uleeceen</td>
<td>tiel uleeceen</td>
</tr>
<tr>
<td>ICL.strong</td>
<td>NEG IRR.ICL.strong</td>
<td>NEG IRR.ICL.strong</td>
</tr>
<tr>
<td></td>
<td>She is strong.</td>
<td>She is not strong.</td>
</tr>
</tbody>
</table>

(2) On the Morphological Changes Between Positive and Negative Antonym

a. In (1a)-(1e), the so-called ‘verbal classifier’ (glossed ‘CL’) of the positive predicate is changed to the ‘sh-classifier’ (glossed ‘shCL’) in the negative.

b. In (1e)-(1f), there are further changes to verbal lexeme:
   (i) In (1e), the thematic prefix /-a- undergows mutation to /-a-
   (ii) In (1f), the onset of the root undergoes mutation from /ts/ to /t/

(3) The Central, Overarching Question

What is the morpho-syntax and morpho-semantics of the ‘negative predicates’ in (1)?

a. What is their morphosyntactic structure?

b. How does this structure get mapped to their observed meaning?

(4) Related Puzzle 1

A few negative stative (gradable) predicates are formed with negation, but contain lexemes that cannot (any longer) appear in a positive form.

a. tiel  chaa y'eeit.
   NEG IRR.0CL.nice(?)
   0CL.nice(?)
   He’s mean / grumpy / irritable.

b. * Chaa y’ayatee.

(5) Related Puzzle 2

There a few positive stative (gradable) predicates whose antonyms are (or can often be) expressed in Tlingit by simply negating the positive predicate.

a. (i) naalei  (ii) tiel unalè 0CL.far
   NEG IRR.0CL.far
   It is far.
   It is near.

b. (i) y'aliiseen  (ii) tiel y'eliseen ICL.expensive
   NEG IRR.ICL.expensive
   It is expensive (dear).
   It is cheap (low value).

c. (i) Shigéek  (ii) tiel ushgéek, shCL.stingy
   NEG IRR.shCL.stingy
   He is stingy.
   He is generous.

d. (i) Kayahéil'k  (ii) tiel koobhél'k 0CL.strong
   NEG IRR.0CL.strong
   He is strong.
   He is weak.

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1 For reasons of space, acknowledgments have been placed at the end of the handout.
2 I provide only the roughest of glosses for individual Tlingit words, which can be morphologically quite complex. This simplification is most radical for verbs, as I provide glosses only for their lexical content and the inflectional morphology that is important to my argumentation. In addition, I employ the following glossing abbreviations throughout: OCL ‘classifier’, 1 1’ person’, 2 2’ person’, 3 3’ person’, DEM ‘demonstrative’, DIM ‘diminutive’, DUB ‘dubitative’, IRR ‘irrealis’, ICL ‘classifier’, NEG ‘negation’, O ‘object’, PL ‘plural’, POSS ‘possessive’, PRV ‘perfective’, REL ‘relativizer’, S ‘subject’, sCL ‘s-classifier’, sg ‘singular’, shCL ‘sh-classifier’, SUB ‘subordinator’.

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1
2
Subsequent Questions
Can the answer to (3a,b) shed light on the intuitively related facts in (4)-(5)?

• What is the nature of the lexeme chaa x’a-tee such that only (4a) is well-formed?
• Can we show that the negated predicates in (5) truly have (strong) antonymic readings? If so, how do they get such readings?

Suggested Terminology: ‘NEG Antonyms’
• The ‘Negative Predicates’ in (1)
• The verbal form tlél chaa x’eití in (4a)
• The negated predicates in (5aii)-(5dii)

Further Directions: Underlying Negation in English Antonyms
Certain facts have lead some to propose that negative adjectives in English contain an underlying negation (Büring 2007a,b; Heim 2006, 2008).

a. Pronounced Form: ‘short’ || Underlying Structure: [NOT LONG]

b. Cross Polar (A)nomalies:
   (i) ?? This book is wider [ than it is short ]
   (ii) This book is shorter [ than it is wide ]

c. Rullmann Ambiguities:
   This boat is shorter [ than it’s allowed to be ]
   (i) Reading 1: Shorter than maximum permitted shortness.
      LF: This boat is shorter [ than it’s allowed to be short ]
   (ii) Reading 2: Shorter than maximum permitted length.
      LF: This boat is shorter [ than it’s allowed to be long ]

The Relevance of Tlingit
• As we’ll see, the phenomena in (8b,c) hold in Tlingit as well.
• However, not all analyses of the facts in (8b,c) generalize as easily to Tlingit!

Spoiler Alert:
Büring’s (2007a,b) PF-Movement account handles the Tlingit facts (slightly) better than Heim’s (2008) ‘NEG ellipsis’ account.

Outline
Sect 2: Background on methodology and the Tlingit language
Sect 3: The interactions between ‘NEG antonyms’ and degree modifiers
Sect 4: Evidence that the negation in the ‘negative predicates’ in (1) is clausal negation (not incorporated negation)
Sect 5: The structure and semantics of the negated predicates in (5)
   - They do have strong antonymic readings
   - Under such readings, the negation is also clausal negation.
Sect 6: Formal analysis of the ‘negative predicates’ in (1).
   Extensions to the ‘NEG antonyms’ in (4)-(5)
Sect 7: Cross-Polar (A)nomalies in Tlingit and English

Linguistic and Methodological Background
The Tlingit Language (Lingít): A Few Bullet Points
• Traditional language of the Tlingit people of Southeast Alaska, Northwest British Columbia, Southwest Yukon Territory (shaded area in map below)
• Member of the Na-Dene language family; distantly related to Athabaskan languages (e.g. Navajo, Slave, Hupa). Shares the complex templatic morphology of this family.
• Highly endangered; ≤ 200 speakers, all over 60, mostly over 70. Several fluent/near-fluent second language learners; a few raising their children in the language.

Notes on the Data and Methodology

• Unless otherwise noted, all data below were obtained through interviews with native speakers of Tlingit (2015, 2016)
• Seven fluent elders have participated; all are residents of Juneau, AK; all are speakers of the ‘Northern Dialect’ of Tlingit
  o Lillian Austin (Yaaxduláḵt)
  o George Davis (Kaxwaan Éesh)
  o Margaret Dutson (Shak’sháa)
  o Selena Everson (Kasëy̓)
  o William Fawcett (Kóoshdaak’w Éesh)
  o Carolyn Martin (K’altseen)
  o John Martin (Keiheénák’w)
• Interviews lasted two hours and were held in a classroom at the University of Alaska Southeast; 2-4 elders were present at each interview.
• Speakers were asked to translate English sentences paired with particular ‘scenarios’, as well as to judge the ‘correctness’ (broadly speaking) of constructed Tlingit sentences relative to those ‘scenarios’ (Matthewson 2004).
• The scenarios were described to speakers in English, both orally and with accompanying written text.

3. Interactions Between ‘NEG Antonyms’ and Degree Modifiers

• This section introduces data that will be of use to our empirical arguments in Sects 4 - 5
• These data establish the following key generalization, which will be captured by our formal analysis in Section 6.

Scope/Word-Order Generalization for Negation and Degree Modification

a. In order do degree modification of a NEG antonym, the degree modifier must precede the negation.

b. In order to negate a positive predicate modified by a degree modifier, the negation must precede the degree modifier.

NEG Antonyms with Degree Modifiers

The following examples illustrate degree modification of positive and negative predicates. The negative predicates modified below are all NEG antonyms.

In all cases, the degree modifier is yáanáx ‘more than’. In all cases, modification of the NEG antonym places the degree modifier before the negator

a. (i) A yáanáx áwé yáat’a 3O.more.than FOC 0CL.good this.one
    This one is better than it.

(ii) A yáanáx tléil ush’ké 3O.more.than NEG IRR.shCL.good
    It is worse than it.

b. (i) Wéit’aá áwé a yáanáx litseen that.one FOC 3O.more.than 1CL.strong
    That one is stronger than him.

(ii) A yáanáx áwé tlél ulcheen 3O.more.than FOC NEG IRR.1CL.strong(+RootChange)
    He is weaker than him.

c. (i) Aš yáanáx yaa ḵoodzigé 1sgO.more.than sCL.smart
    She is smarter than me.

(ii) Héit’aá yáanáx hél yaa ḵoolshgé that.one more.than NEG IRR.shCL.smart
    He’s dumber than that one.

d. (i) Kúnáx a yáanáx mléeve very 3O.more.than 0CL.far
    It’s a lot further than that.

(ii) A yáanáx tléil unali 3O.more.than NEG 0CL.far
    It’s closer than that.

e. (i) Yáat’aá a yáanáx ʔ’alitseen this.one 3O.more.than ICL.expensive
    This one is more expensive than that.

(ii) A yáanáx áwé ḵúnáx tléil ʔ’elitseen yáat’a
    3O.more.than FOC very NEG IRR.1CL.expensive this.one
    This one is much cheaper than that.
Negation of Degree Modification

The following examples illustrate the negation of positive predicates modified by degree modifiers. In all cases, the degree modifier appears after the negation.

a. Tlél a yáanáš uk’é
NEG 3O.more.than IRR.0CL.good
It’s not better than that. (cf. (14a))

b. Tlél tlaṣ uk’é
NEG very IRR.0CL.good
It’s not very good.

c. Tlél tlaṣ a yáanáš y’eiltseen
NEG very 3O.more.than IRR.ICL.expensive
It’s not much more expensive. (cf. (14e))

d. Tlél a yáanáš unali
NEG 3O.more.than IRR.0CL.far
It’s not farther than that. (cf. (14d))

e. Tlél tlaṣ unali
NEG very IRR.0CL.far
It’s not very far.

f. Hél tlaṣ ut’á
NEG 3O.more.than IRR.0CL.hot
It’s not very hot.
g. Hél a yáanáš ut’á
NEG 3O.more.than IRR.0CL.hot
It’s not hotter than that.

Further Evidence for Semantic Contrasts in (14)-(15)

In scenario (17a), only the negation of a comparative would be true. The comparative of a negative predicate would be false (since the hats are equally expensive).

a. Scenario: We have two hats that are equally expensive.

b. Tlél tlaṣ a yáanáš y’eiltseen
NEG very 3O.more.than IRR.ICL.expensive
It’s not more expensive than that. Judgment: Acceptable in this scenario

c. A yáanáš tél x’eiltseen
3O.more.than NEG IRR.ICL.expensive
It’s cheaper than that. Judgment: Not acceptable in this scenario.

4. Negation in Negative Predicates: Incorporated or Clausal?

A Natural First Perspective on the Facts in (1)

- It’s not at all unusual for negative predicates to be derived from positive ones via some kind of incorporated negator (18a).
- Moreover, in some languages, this incorporated negation is lexically identical to main clause negation (18b).

a. English: unhappy, ineligible, non-syntactic

b. Malay (Kroeger 2014):
   (i) tidak adil
   (ii) Mereka tidak menolong kami
   NEG fair
   3PL NEG help 1PL unfair
   They didn’t help us.

- Perhaps the difference between the negative predicates in (1) and the negation of the positive predicates is that the former have incorporated negation?

An Ineffective Objection:

- But, in those negative predicates in (1), the negation tél appears outside all the inflectional morphology of the verb!
- Shouldn’t it be inside the inflectional morphology, if it’s really incorporated?

Immediate Reply

Tlingit is a Na-Dene language. So, inflectional and derivational morphology often show unexpected orderings (Rice 2000)...

But, there are better arguments that the negation in the NEG antonyms is not incorporated...
4.1 NEG Antonyms and ‘Irrealis’ Morphology

In Tlingit, clausal negation triggers so-called ‘irrealis’ morphology on the verb, with concomitant changes in the realization of aspect and mood inflection.

(21) Realis vs. Irrealis Modes in Tlingit

a. tlél uk’é
NEG 0CL.good
It is not good.

b. * tlél yak’éi
NEG 0CL.good
It is good.

Crucially, the negative predicates in (1) all obligatorily appear with this irrealis morphology (see the ‘IRR’ in their glosses)

(22) NEG Antonyms Require Irrealis Morphology

a. tlél ushk’é
NEG shCL.good
Cats are bad.

b. * tlél shik’é
NEG shCL.good
Everyone is weak. (~ No one is any strong.)

c. (i) Hél dóosh ụshk’é
NEG cat shCL.good
Cats are lucky. (~ No cat is any lucky.)

(25) Semantic Contrast Between NEG Antonym and Negated Positive

Speaker report a semantic contrast between sentences like those above, and ones that contain a positive predicate under negation.

a. Hél dóosh ụshk’é
NEG cat shCL.good
Cats are weak. (~ No cat is any strong.)

(26) Semantic Contrast Between NEG Antonym and Negated Positive

We’ll see that our formal semantics in Section 6 can predict these judgments...
4.3 Two NEG Antonyms Under a Single Negation

(26) Clausal Negation. Not Incorporated Negation, Can Scope Over Disjunction
a. Dave is not [happy or friendly].
   
b. * Dave is un-[happy or friendly].

As shown below, it possible to disjoin together in Tlingit the roots of two NEG antonyms underneath a single NEG marker.

(27) Two NEG Antonyms Disjoined Under a Single Negation

Tlél aadóo sá [ulcheen kach’u ushk’ē ]
NEG anybody IRR.1CL.strong+(RootChange) or IRR.shCL.good
Everyone is weak and bad. (~ Not anybody is any strong or any good.)

4.4 The Negation of NEG Antonyms

(28) Clausal Negation and Incorporated Negation are Syntactically Compatible
a. He is not unlucky.
   b. This is not impossible.

(29) NEG Antonyms in Tlingit Cannot be Directly Negated

a. * Tlél tiłl yas kashgé
   NEG NEG IRR.shCL.smart
   Judgment: Ill-formed; not meaningful; does not mean ‘not dumb’
   
b. (i) * Tlél tiłl ushk’ētl.
   NEG NEG IRR.shCL.lucky
   Judgment: Ill-formed, not meaningful, does not mean ‘not unlucky’
   
   (ii) Tlél yēi uti tiłl ushk’ētl
   NEG thus IRR.IMP.3S.is NEG IRR.shCL.lucky
   He’s not unlucky. (Lit. It’s not so that he’s unlucky.)
   
c. (i) * Tlél tiłl ushk’ē
   NEG NEG IRR.shCL.good
   Judgment: Ill-formed, not meaningful, does not mean ‘not bad’
   
   (ii) Tlél wāa sā uti
   NEG anyhow IRR.IMP.3S.is
   It’s not bad. (Lit. It’s not any way)

(30) Question: Could the ill-formedness of (29a), (29bi), (29ci) just be due to haplology?
   Answer: No. Such sentences are ill-formed even when a degree modifier intervenes between the two negations (31).

(31) NEG Antonyms Modified by Degree Expressions Cannot be Directly Negated

   a. (i) Ḳunáx hél ushk’ē
      really NEG IRR.shCL.bad
      It’s really bad.
   
      (ii) * Hél Ḳunáx hél ushk’ē
         NEG really NEG IRR.shCL.bad
         (Ill-formed; doesn’t mean ‘it isn’t really bad’)

   b. (i) A yānáx tiłl ushk’ē
      3O.more than NEG IRR.shCL.bad
      It’s worse than it.
   
      (ii) * Tlél a yānáx tiłl ushk’ē
         NEG 3O.more than NEG IRR.shCL.bad
         (Ill-formed; doesn’t mean ‘it isn’t worse’)

Note:

- We saw in Section 3 that Tlingit does generally allow negation to take degree modifiers in its scope (15).
- Therefore, the ill-formedness of (31aii) and (31bii) must be due to the presence of two instances of negation.

(32) The Argument

- As just noted in (28), we do not expect incorporated negation to be incompatible with clausal negation.
- However, many languages disallow multiple instances of clausal negation (de Clercq & Wyngaard 2016).

Not all speakers of Tlingit accept VP-disjunction. In general, though, speakers accepted (27) if and only if they also accepted other instances of VP-disjunction under negation, like the following:

(i) Tlél aadóo sá [ool’čiq kach’u at ushi ]
NEG anybody IRR.IMP.3S.dance or IRR.IMP.3S.sing
Nobody is dancing or singing.
4.5 The Licensing of the Morphological Change in NEG Antonyms

(33) Major Conclusion of Preceding Arguments
The negation found in the NEG antonyms in (1) is clausal negation.

(34) An Immediate Consequence
The extra morphological changes found with the negative predicates in (1) – the change in ‘verbal classifier’ or the mutation in the root onset – are licensed by clausal negation.

(35) An Immediate Question: What is the nature of this licensing? How does it work?

(36) *Any + Predicate: A Putative English Parallel?
- In certain example sentences above, NEG antonyms are freely translated into English by means of any modifying a predicate, as in cases like the following.

a. This is not any good. (~ This is bad.)

- Could the morphological mutations found in NEG antonyms be semantically/syntactically akin to this use of any in English?

(37) Prediction: Licensing by DE-ness and Across Clauses
If the morphological changes found in Tlingit NEG antonyms are semantically and structurally akin to any+predicate in English, then we predict:

a. Licensing in Downward Entailing (DE) Environments:
   If this is any good, then my father will eat it.

b. Licensing Across Clauses:
   (i) I don’t think this is any good. (ii) I don’t want to be any good.

(38) Background on NPIs in Tlingit
Interrogative pronouns can function as indefinites in DE environments. 3

a. Aadóo sá ̃ t̃á?  
   IMP.3S.sleep  
   Who is sleeping?

b. Tiłél ̃aadóo sá ̃ut̃á  
   NEG anyone  IRR.IMP.3S.sleep  
   Not anyone is sleeping.

(39) Downward Entailment is Not Sufficient to License Morphological Change
- As expected from the fact in (38), interrogative pronouns can function as indefinites in the antecedents of conditionals (39a).

- However, appearance in the antecedent of a conditional is not sufficient to license the morphological change found in a NEG antonym (39b).

a. *Daa sá k’éyi, ãş ēeshẽh yãsh ayagũsax̱áa.
   anything 0CL.good.SUB 1sg.POSS father.ERG  FUT.eat.up
   If anything is good, my father will eat it all up.

b. * Daa sá shak’éyi, ãş ēeshẽh yãsh ayagũsax̱áa.
   anything shCL.good.SUB 1sg.POSS father.ERG  FUT.eat.up
   Judgment: Ill-formed, not meaningful

(40) Higher Negation is Not Sufficient to License Morphological Change
The contrasts in (40a,b) show that negation in a matrix clause does not license the morphological change of a NEG antonym in the subordinate clause.

a. (i) Yéi xwaajée tił̃el ushk’éyi
   1sgS.think NEG IRR.shCL.good.SUB
   I think that it’s bad.

(ii) * Tił̃el yéi xwaajéi ushk’éyi
    NEG IRR.1sgS.think IRR.shCL.good.SUB
    Judgment: Ill-formed, not meaningful

b. (i) Tił̃el ãş tuwiḵa ushgu
   NEG IRR.1sgS.want NEG IRR.1sgS.shCL.good
   I don’t want to be bad.

(ii) * Tił̃el ãş tuwiḵa ushgu
    NEG IRR.1sgS.want IRR.1sgS.shCL.good
    Judgment: Ill-formed, not meaningful

(41) Interim Summary: Negation in Negative Predicates
- (Unlike any+predicate in English) the morphological changes found in the negative predicates in (1) – the change to sh-classifier and the root mutation – are licensed by clause-mate clausal negation

b. When clausal negation appears in concert with these morphological changes, the meaning is strengthened to an antonymic concept. 
   (i.e., ‘not good’ < ‘bad’, ‘not smart’ < ‘dumb’)

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3 Some speakers also allow interrogative pronouns to function as indefinites in upward-entailing (UE) environments.
5. The Structure and Meaning of Other NEG Antonyms in Tlingit

Our discussion so far has focused upon the NEG Antonyms in (1), where there is a three-way contrast between (i) positive predicate, (ii) negation of positive predicate, (iii) NEG antonym.

- But, what of the cases in (4)-(5), where one of these three contrasts is missing?

(42) NEG Antonyms Without Positive Correlate

a. tlél chaa ș’eríi. NEG IRR.0CL.nice(?)
   He’s mean / grumpy / irritable.

b. * Chaa ș’ayatee. 0CL.nice(?)

(43) NEG Antonyms Surface-Identical to Negation of Positive Predicate

a. (i) naaléi 0CL.far
   It is far.
   (ii) tlél unalé NEG IRR.0CL.far
   It is far.

b. (i) χ’alíseen ICL.expensive
   It is expensive (dear).
   (ii) tlél ș’eiltseen NEG IRR.1CL.expensive
   It is cheap (low value).

c. (i) Shígeek shCL.stingy
   He is stingy.
   (ii) tlél ushègeek NEG shCL.stingy
   He is generous.

d. (i) Kayuhéil’k 0CL.strong
   He is strong.
   (ii) tlél koohéil’k NEG IRR.0CL.strong
   He is weak.

(44) Some Key Questions

a. Can we still show that the negation in these NEG antonyms is clausal?

b. Can we show that the (putative) NEG antonyms in (43) really have strong ‘antonymic’ readings, and aren’t just (semantically) the negation of the positive predicates?

5.1 Evidence that the Negation is Clausal (Not Incorporated)

(45) Obligatory Irrealis Morphology

Just as with the NEG antonyms in (1), those in (42) and (43) must appear with ‘irrealis’ (inflectional) morphology.

- Again, we wouldn’t expect such effects upon inflectional morphology if the negation markers were incorporated (derivational morphemes)

(46) Indefinites Intervening Between Negation and the Predicate

Just as we saw for the NEG antonyms in Section 4.2, it is possible for an indefinite to come between the negation and the remainder of the NEG antonym in (42)-(43).

a. (i) Hél dóosh chaa ș’eiti
   NEG cat IRR.0CL.nice(?)
   Cats are mean. (~ No cat is any nice)

   (ii) Tlél aadóo sá chaa ș’eiti
   NEG anybody IRR.0CL.nice(?)
   Everyone is mean (~ Not anybody is any nice.)

b. Hél dóosh koohél’k
   NEG cat IRR.0CL.strong
   Cats are weak. (~ No cat is any strong)

5.2 Strong ‘Antonomic’ Readings of Certain Negated Predicates

(47) The Goal: To show that cases like tlél unalé in (43) really allow a (strong) reading as a negative predicate (‘near’), and aren’t always just the negation of a positive proposition (‘it is not far’).

5.2.1 Modification by Degree Modifiers

(48) Background Fact: As in English, it is not generally possible in Tlingit for degree modifiers to combine with negated predicates.

a. * Áyáana₃ tlél uk’è 3.POSS more.than NEG IRR.0CL.good

b. * Áyáana₃ tlél ut’a 3.POSS more.than NEG IRR.0CL.hot

c. * kúna₃ tlél ut’a very NEG IRR.0CL.hot
Natural Explanation

• Negation of a positive proposition (‘it is not good’) is of propositional type (‘or <st>’)
• Therefore, it does not project the degree argument needed by the degree modifier

NEG Antonyms in (43) Modified by Degree Modifiers

Despite the fact in (48), however, the putative NEG Antonyms in (43) can appear with degree modifiers.

a. A yáanáx tél íunalí 3O.more.than NEG IRR.0CL.far
   It’s closer than that.

b. Kúnanáyáa yáanáx tél íunalí very 3O.more.than NEG IRR.0CL.far
   It’s much closer than that.

c. A yáanáx áwé kúnanáx tél ¡’eiltseen yát’aavá
   3O.more.than FOC very NEG ICL.expensive DEM.one
   This one is way cheaper than it.

d. Tléix’í’a yáanáx áwé tél ushgeék one.PART more.than FOC NEG IRR.shCL.stingy
   He’s more generous than one of them.

e. Héit’í’a yáanáx áwé tél ushgeék
   this.one more.than FOC NEG IRR.shCL.stingy
   He’s more generous than this one.

Question: Could the sentences in (50) be some kind of metalinguistic comparison?

With enough context, English speakers marginally accept things like:

a. ?* Dave is very not tall.

Answer: Such an analysis of (50) wouldn’t explain the reported contrast with (48)
Also, Tlingit doesn’t seem to allow for such cases of ‘metalinguistic comparison’

a. ? This is more of a totem pole than that.

b. * A yáanáx kootéeyaawá sitee
   3O.more.than totem.pole IMP.3S.is
   (Does not mean anything like ‘This is more of a totem pole than that.’)

5.2.2 Behavior in Entailment-Reversing Environments

Key Observation
In an ‘entailment-reversing’ frame like that in (53a,b), the sentence with the weaker predicate (‘not far’) is stronger than the one with the stronger predicate (‘nearby’)

a. He went to all the towns that were not far.

b. He went to all the towns that were nearby.

Evidence: In a scenario like that in (53c), only sentence (53b) is true; (53a) is false.

c. Scenario:
   Some towns are very far away from Juneau: Seattle, San Francisco, Anchorage. Some towns are very close: Douglas and Thane. However, other towns aren’t really far but aren’t really close either: Sitka and Yakutat, for example. Dave went to Douglas and Thane, but didn’t go to any of the other towns.

(54) Tlingit Tlél Unalí Behaves Like English Nearby

a. Ldakát yá hél íunalí aandé koowateen.
   all DEM NEG IRR.0CL.far town.to PRV.3S.visit
   He went to all the towns that are near.

b. Judgment: Does fit the scenario in (53c).

The fact that speakers accept (54a) in scenario (53c) suggests that tlél unalí does allow a strong antonymic interpretation akin to ‘nearby’.

(55) Further Data: English Cheap vs. Not Expensive

a. Scenario:
   A hat maker has three kinds of hats on display. She has some expensive hats, which are $600. She has some cheap hats, which are $5. And, she has some average-priced hats, which are about $30. Dave bought all the $5 hats, but didn’t buy any other hats.

b. English Judgment: Only sentence (55bi) is true in this scenario.
   (i) Dave bought up the hats that were cheap.
   (ii) Dave bought up the hats that were not expensive.
(56) Tlingit Tlé’i’tseen Behaves Like English Cheap

a. Tlél x’éiltseeni s’aaxw yag ayaawsi.io
   NEG IRRL.expensive.REL hat EXH.IO.PRV.3S.buy
   He bought up (all) the hats that were cheap / not expensive.

b. Judgment: Does fit the scenario in (55a).

The fact that speakers accept (56a) in scenario (55a) suggests that télél x’éiltseen does allow a strong antonymic interpretation akin to ‘cheap’.

6. A Formal Syntactic and Semantic Analysis of Tlingit NEG Antonyms

As noted in Section 1, it has been independently proposed that negative adjectives in English actually contain syntactic negation (Büring 2007a, b; Heim 2008).

• The following analysis of the Tlingit NEG antonyms in (1)-(5) builds upon the tools and insights of this prior work…

6.1 The Analysis: A Special, ‘Negative Concord’ Degree Operator in Tlingit

(57) Gradable Predicates are Relations Between Degrees and Entities

a. [[ k’ei / good ]] = [ λd : λx : goodness(x) ≥ d ]
b. [[ tseen / strong ]] = [ λd : λx : strength(x) ≥ d ]
c. [[ lei / far ]] = [ λd : λx : distance(x) ≥ d ]

In order for a gradable predicate to be used as a main predicate, it must appear with the (phonologically null) POS operator…

(58) The POS Operator

[[ POS ]] = [ λP,αβ : Lc ⊂ P ]

• Lc is the contextually determined ‘no mans land’ of non-extreme degrees.
• For example, in the case of ‘good’, it’s those degrees of goodness that neither count as ‘good’ nor as ‘bad’.

Goodness Scale: … -----------[Lc -----------] -------------------------→
   BAD neither GOOD good nor bad

Another ingredient I will use is the (phonologically null) degree-relative operator, DEG-REL.

(59) The DEG-REL Operator

b. Syntax:
   • Generated in the degree argument position of a gradable predicate.
   • For type-theoretic reasons, undergoes movement, creating a syntactically derived <d,t>-predicate (just like a relative clause operator)

(60) Illustration: Positive Predicate Sentence

a. Sentence: Yak’éi ‘it is good’ (1a)
c. Truth-Conditions:

To capture the ‘negative predicates’ in (1), I propose the existence (in Tlingit) of an additional degree-relative operator, NEG-REL.

(61) The NEG-REL Operator

b. Syntax: Same as ‘DEG-REL’, except that…
   • Only licensed in the specifier of NegP; must move to SpecNegP
     o In this sense, it’s a bit like a ‘negative concord’ item…
   • Furthermore, it is the only degree operator that is permitted to cross negation and move to SpecNegP
   • Adjacency to predicate triggers (lexically stipulated) morpho-phonological changes.
     o E.g., shift to the sh-classifier; consonant mutation
(62) Illustration: Negative Predicate Sentence

a. Sentence: tlél ušk’é ‘it is bad’ (1a)


c. Truth-Conditions: Lₑ ⊆ { d’ : (goodness(xₑ) ≥ d’) }

… ——— xₑ —————————[Lₑ ———— ] ————————————→
{ d’ : (goodness(xₑ) ≥ d’) }

- (62c) amounts to saying that the degrees of goodness that are above xₑ’s degree of goodness contain the ‘non-extreme’ degrees.

- This could only be the case if xₑ’s degree of goodness falls below all the ‘non-extreme’ degrees, and so is among those degrees qualifying as ‘bad’.

Side-Note:
- Movement of NEG-REL to SpecNegP will create a syntactically derived <d,t> predicate
- Thus, to be used a main predicate, this structure must (again) be complement to a POS operator…
- Consequently, we must allow the POS operator in Tlingit the option of being generated above NegP…

(63) Comparison: Negation of a Positive Predicate

a. Sentence: tlél u’k ‘it is not good’ (1a)


c. Truth-Conditions: ¬ { Lₑ ⊆ { d’ : goodness(xₑ) ≥ d’ } }

- (63c) states that the degree of goodness falling below xₑ’s degree of goodness don’t contain the ‘non-extreme’ degrees.

- Thus, these truth-conditions will hold if either:
  - xₑ’s goodness falls within the non-extreme degrees (xₑ is just so-so)
  - xₑ’s goodness falls below the non-extreme degrees (xₑ is bad)

(64) Prediction: No Negative Predicate Reading of (63a)

This analysis predicts that sentence (63a) cannot have the LF in (62b), and so cannot get the ‘negative antonym’ reading of (62a).

- After all, if there were a degree operator in SpecNegP, it could only be NEG-REL…
- But if NEG-REL were generated as the argument for yak’éi, then the classifier would shift to the st-classifier…

This analysis also predicts the interesting contrast in meaning between (25a) and (25b)...

(65) Key Prediction: NEG Antonyms and Indefinites

a. Sentence: Tlél daw să ušk’é ‘Everything is bad’ (25a)


- dau să ‘anything’ is in the scope of NEG
- NEG-REL moves to SpecNegP
- The derived degree-predicate is argument to POS

c. Truth-Conditions: Lₑ ⊆ { d’ : ¬ ∃ x (goodness(x) ≥ d’) }

… all the things [Lₑ ———— ] ————————————→
{ d’ : ¬ ∃ x (goodness(x) ≥ d’) }

- (65c) could only hold if everythings’ degree of goodness falls below the non-extreme degrees, and so everything qualifies as ‘bad’

(66) Comparison: NPIs with a Positive Predicate

a. Sentence: Tlél daw să u’k ‘Nothing is good’ (25b)


- There is no NEG-REL; only DEG-REL
- Since DEG-REL cannot move to SpecNegP, DEG-REL – and thus POS – must be in scope of NEG

c. Truth-Conditions: ¬ ∃ x. Lₑ ⊆ { d’ : goodness(x) ≥ d’ }

- (66c) states that there is no x such that the degrees of goodness falling below x’s degree of goodness contain the ‘non-extreme’ degrees.
- This could only hold if nothing has a degree of goodness higher than the ‘non-extreme’ degrees (and so nothing counts as ‘good’)

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Next, I introduce the following semantics for the degree phrase yáanáx 'more than' (again, borrowing from work by Büring (2007a,b) and Heim (2008))...

(67) **Comparative Operator**  
\[ [[yáanáx]] \rightarrow [\lambda P, x : [\lambda Q, x : P \subset Q]]\]

(68) **Illustration: Comparative with Positive Predicate**

- **Sentence:**  
  
  a. A yáanáx yák’éi ‘x₂ is better than x₁’ (14a)
  
  b. **LF:**

  \[ \[
  \begin{array}{c}
  \ldots \\
  \text{DEG-REL}_1 \\
  \text{VP} \\
  3 \\
  \text{VP} \\
  \text{VP} \\
  \text{VP} \\
  \text{VP} \\
  \end{array}
  \]

  - The sister to yáanáx contains an elided VP (proyák’éi, ‘x₁ good’)
  - In both the main and subordinate clauses, DEG-REL moves to create a derived degree predicate.
  - yáanáx takes the subordinate degree predicate as its first argument, and the main clause degree predicate as its second argument.

  c. **Truth-Conditions:**

  \[ \{ d' : \text{goodness}(x_3) \geq d' \} \subset \{ d' : \text{goodness}(x_2) \geq d' \} \]

  \[ \ldots \text{x}_2 \ldots \text{x}_4 \rightarrow \{ d' : \text{goodness}(x_4) \geq d' \} \]

  \[ \{ d' : \text{goodness}(x_2) \geq d' \} \]

  \[ \{ d' : \text{goodness}(x_3) \geq d' \} \]

As shown below, this syntax-semantics predicts that yáanáx 'more than' could take as argument a NegP whose specifier contains NEG-REL.

(69) **Illustration: Comparative with NEG Antonym**

- **Sentence:** A yáanáx tlél ush’é ‘x₂ is worse than x₁’ (14a)

- **LF:**

  \[ \[
  \begin{array}{c}
  \ldots \\
  \text{DEG-REL}_1 \\
  \text{VP} \\
  \text{VP} \\
  \text{VP} \\
  \text{VP} \\
  \text{VP} \\
  \text{VP} \\
  \text{VP} \\
  \end{array}
  \]

  - The sister to yáanáx contains an elided NegP (tlél proy ush’éi, ‘x₄ is bad’)
  - In both the main and subordinate clauses, DEG-REL moves to SpecNegP to create a derived (negative) degree predicate.
  - yáanáx takes the subordinate degree predicate as its first argument, and the main clause degree predicate as its second argument.

  c. **Truth-Conditions:**

  \[ \{ d' : \neg\text{goodness}(x_3) \geq d' \} \subset \{ d' : \neg\text{goodness}(x_2) \geq d' \} \]

  \[ \ldots \text{x}_2 \ldots \text{x}_4 \rightarrow \{ d' : \neg\text{goodness}(x_4) \geq d' \} \]

  \[ \{ d' : \neg\text{goodness}(x_2) \geq d' \} \]

  \[ \{ d' : \neg\text{goodness}(x_3) \geq d' \} \]

  - (69c) states that the degrees of goodness that are above x₂’s degree of goodness contains the degrees of goodness that are above x₄’s goodness.
  - This could only hold if x₃’s degree of goodness is lower than x₄’s
(70) Comparison: Negation of a Positive Comparative

a. Sentence: \( Tlél\ a\ yánáx\ uk’é \) \( x_2\) is not better than \( x_4\) (15a)

b. LF:

\[ \text{NegP} \]

\[ \text{NEG} \]

\[ \text{tlél} \]

\[ \text{PP} \]

\[ \text{S’’} \]

\[ \text{S’’} \]

\[ \text{a yánáx} \]

\[ \text{DEG-REL} \]

\[ \text{1} \]

\[ \text{VP} \]

\[ \text{1} \]

\[ \text{VP} \]

\[ \text{pro}_2 \]

\[ \text{VP} \]

\[ \text{t}_1 \]

\[ \text{uk’é} \]

\[ \text{DEG-REL}_1 \]

\[ \text{3} \]

\[ \text{VP} \]

\[ \text{pro}_2 \]

\[ \text{VP} \]

\[ \text{t}_1 \]

\[ \text{uk’é} \]

c. Truth-Conditions:

\[ \{ \{ d’ : \text{goodness}(x_4) \geq d’ \} \subset \{ d’ : \text{goodness}(x_2) \geq d’ \} \} \]

• (70c) states that it’s not the case that \( x_2\)’s goodness is higher than \( x_4\)’s

• Thus, these truth-conditions could hold if \( x_2\) and \( x_4\) were of equal goodness

(71) Summary: the Scope/Word-Order Generalization in (13)

- We’ve just seen how our syntax/semantic gives us an analysis of the comparative sentences in (14) and (15)

- Crucially, the LFs we’ve been considering accord with the surface word-order in those sentences.
  - We assume that ‘things to the left’ outscope ‘things to the right’...

- In this way, our analysis captures the Scope/Word-Order Generalization in (13)
  - In comparatives of NEG Antonyms, \( yánáx\) precedes \( tlél\) precisely because it outscopes it.
  - For exactly these reasons, \( tlél\) precedes \( yánáx\) in the negation of a (positive) comparative.

6.2 Some Additional Predictions

(73) No Comparative Phrase Before Negation of a Positive Predicate

a. * A \( yánáx\) \( tlél\ uk’é \)

\[ \text{3O. more than} \]

\[ \text{NEG} \]

\[ \text{IRR. SHCL} \]

\[ \text{good} \]

\[ \text{(cf. (14a), (15a))} \]

b. Explanation:

- If degree operator \( yánáx\) ‘more than’ is before negation, then it must be scoping over negation...
  - But since \( yánáx\) ‘more than’ needs a degree argument, that must mean that \( tlél\ uk’é\) is a (syntactically derived) degree predicate...
  - But the only ‘degree relative’ operator that can move over \( tlél\) is \( \text{NEG-REL} \)...

(74) Comparative Phrase Cannot Intervene in a NEG Antonym

a. * Tlél a \( yánáx\) \( ushk’é \)

\[ \text{NEG} \]

\[ \text{3O. more than} \]

\[ \text{IRR. SHCL} \]

\[ \text{good} \]

\[ \text{(cf. (14a), (15a))} \]

b. Explanation:

- If negation is before \( yánáx\) ‘more than’, then it must be scoping over ‘more than’...
  - Now, there must be a ‘degree relative’ operator moving from the degree argument position of \( k’éi\) ‘good’ to a position below \( yánáx\)
  - The position this ‘degree relative’ operator is moving to is not SpecNegP (obviously), and so this degree operator is not NEG-REL...

6.3 A Possible Problem: Intervention Effects with ‘Degree Movement’ (Heim 2006)

A Possible Problem

- Our analysis proposes that the operator ‘NEG-REL’ moves over negation
  - Such movement of degree-OPs over logical/quantificational expressions, however, is generally thought to be impossible (Heim 2006)

- If we allowed such movements freely, we’d wrongly predict that Tlingit sentences like (76a) can be construed as true in scenarios like (76c)
(6.4) Applying the Analysis to Other NEG Antonyms in Tlingit

Finally, let’s consider some ways in which the analysis from Section 6.1 might address those questions under (6)…

(79) NEG Antonyms with No Morphological Change

a. Question: In Section 5.2, we saw that the negated predicates in (5) do seem to have (strong) antonymic readings. How are those derived?


(ii) L₁ ⊂ \{ \text{d'} : \text{distance}(x₂) \geq \text{d'} \}\]

... \Rightarrow \text{NEAR} \cdots \{ \text{LC} \} \cdots \text{FAR} \cdots \Rightarrow \{ \text{d'} : \text{distance}(x₂) \geq \text{d'} \}\]

b. Possible Answer: From cases like tlél uččeen ‘weak’ (1f) and tlél q’etgiq ‘boring’ (1e), it seems that the morpho-phonological effect of NEG-REL must be stipulated (on an item-by-item basis)

• It wouldn’t be crazy to suppose that for some items (e.g., those in (5)), NEG-REL simply has no morpho-phonological effect.

• Thus, tlél unaléí (79aii) could receive an LF where POS takes NegP in its scope, producing a strong, antonymic reading.

(ii) L₁ ⊂ \{ \text{d'} : \text{distance}(x₂) \geq \text{d'} \}\]

... \Rightarrow \text{NEAR} \cdots \{ \text{LC} \} \cdots \text{FAR} \cdots \Rightarrow \{ \text{d'} : \text{distance}(x₂) \geq \text{d'} \}\]
7. Further Consequences: Underlying Negation in Other Negative Predicates?

(80) Underlying Negation in the Negative Predicates of English

As noted earlier, certain facts have lead some to propose that all negative adjectives in English contain an underlying negation (Büring 2007a,b; Heim 2006, 2008).

a. Pronounced Form: ‘short’ || Underlying Structure: [NOT LONG]

(81) Rullmann Ambiguities (Rullmann 1995)

a. Sentence: This boat is shorter [ than it’s allowed to be ]

b. Readings:
   (i) Shorter than maximum permitted shortness.
       *LF: This boat is shorter [ than it’s allowed to be short ]
   (ii) Shorter than maximum permitted length.
       *LF: This boat is shorter [ than it’s allowed to be long ]

c. Analytic Claim:
   If “shorter” = “NOT LONG”, then the underlying “LONG” in the main clause can license comparative deletion of “long” in the comparative clause, giving us Reading-(ii).

(82) Cross Polar (A)Nomalies (Büring 2007a,b)

In an English subcomparative, the ‘polarities’ of the gradable predicates can differ only if the positive one is in the comparative phrase (and the negative one in the main clause)

a. ?? This book is wider [ than it is short ]

b. This book is shorter [ than it is wide ]
   (~ This book is less long than it is wide)

Both assume that negative predicates are underlyingly the negation of a positive predicate (“short” = “NOT LONG”)

• There are two key analyses of the pattern in (82): Büring 2007a,b ; Heim 2008

(83) Büring’s (2007a,b) Analysis of (82b)

Büring (2007a,b) puts forth a treatment of (82b) that rests upon the existence of certain (presumably PF-level) movement operations occurring in English.

a. Initial Structure of (82b):
   [ This book [ [ not -er ] [ than it is wide ] ] tall ]

b. PF Form of (82b):
   Extraposition of the comparative phrase than it is wide.
   Short (PF-movement) of NEG to the A-head tall
   [ This book [ [ -er ] [ not tall ] [ than it is wide ] ]

c. Subsequent Spell-Out Rules Acting on (83b):
   [ not tall ] \rightarrow /short/
   [ er ] + /short/ \rightarrow /shorter/

d. LF-Structure of (82b):
   Covert movement of ‘[ [ not -er ] [ than it is wide ] ]’
   [ [ [ not -er ] [ than it is wide ] ] [ 1 [ this book t, tall ] ] ]
   • The polarities in the main and subordinate clauses match!
   • Under Büring’s (2007a,b) semantics, (83d) ends up meaning “this book is less tall than it is wide”

(84) Heim’s (2008) Analysis of (82b)

Heim (2008) proposes that sentences like (82b) are derived by ellipsis of negation in the subordinate clause.

a. Initial Structure of (82b):
   [ This book [-er [ than it is [ not wide ] ] ] [ not tall ] ]

b. PF-Form of (82b):
   Extraposition of the comparative phrase than it is not wide.
   Ellipsis of the negation in the subordinate clause
   [ This book [-er [ not tall ] [ than it is [ not wide ] ] ]

c. LF-Structure of (82b):
   Covert movement of ‘[ [-er [ than it is [ not wide ] ] ]’
   • The polarities in the main and subordinate clauses match!
   • Under Heim’s (2008) semantics, (84c) ends up meaning “this book is shorter than it is narrow.”

7 Büring (2007a,b) is relatively non-committal about the morpho-syntactic details of how the negation becomes displaced in sentences like (82b). My presentation of his ideas thus makes some formal assumptions beyond those he himself is strictly committed to.
(85) **Question:**
Do facts like those in (81)-(82) also hold in Tlingit, even for predicates that don’t overtly have negation in them?

(86) **Clausal Comparatives and Sub-Comparatives in Tlingit**

a. **Aadé saduwahéiyi yé yáanáx kakwliwóox’**.
   3O.to IMP.IndefS.allow.REL way more.than ICL.wide
   It’s wider than it’s allowed to be. (It’s wider than how it’s allowed to be.)

b. **Aadé kakwliwóox’u yé yáanáx koowáat’**
   3O.to ICL.wide.REL way more.than 0CL.long
   It’s longer than it is wide. (It’s longer than how wide it is.)

c. **Aadé koowáat’i yé yáanáx kakwliwóox’**
   3O.to 0CL.long.REL way more.than ICL.wide
   It’s wider than it is long. (It’s wider than how long it is.)

• The comparative clause is a relative clause modifying the light noun yé ‘way’
• The phrase **aadé** (lit. ‘to it’) seems to resume the trace of the REL-OP (Crippen, p.c.)
• The resulting relative clause is akin to a ‘degree free relative’ in English

(87) **Cross Polar (A)Nomalies in Tlingit**

a. * Aadé klisáa’ku yé yáanáx koowáat’
   3O.to ICL.narrow.DIM.REL way more.than 0CL.long
   (Lit. ‘It’s longer than how narrow it is.’)

b. **Aadé koowáat’i yé yáanáx kulisáa**
   3O.to 0CL.long.REL way more.than ICL.narrow
   It’s narrower than it is long. (It’s narrower than how long it is.)

• Sentence (86a) – where the negative predicate is in the subordinate clause – was rejected by 4/6 speakers.
• Sentence (86b) – where the negative predicate is in the main clause – was accepted by 6/6 speakers.

(88) **Rullmann Ambiguities in Tlingit, Part 1**

The following dialog is sensible in English only because the comparative clause in (88d) can be interpreted as ‘than it is allowed to be wide’

a. Tom: Your boat is too wide.

b. Joe: No, my boat is allowed to be this wide.

c. Tom: No, your boat is wider than it is allowed to be.

d. Joe: No, my boat is narrower than it is allowed to be.

(89) **Rullmann Ambiguity in Tlingit, Part 1**

• The dialog in (88) can be faithfully reproduced in Tlingit, as shown below.
• This suggests that the subordinate clause in (89d) can be interpreted to mean ‘how it is allowed to be wide’

a. I yaagú ḷoodáx kakwliwóox’
   2sg.POSS boat too.much ICL.wide
   Your boat is too wide.

b. Tléik’! Aṣ yaagú yéi s asayahéi no 1sg.POSS boat thus PL.3O.IMP.3S.allow
   aadé kakwliwóox’u yé!
   3O.to ICL.wide.REL way
   No! They allow my boat to be this wide.

c. Tléik’! Aadé saduwahéiyi yé yáanáx kakwliwóox’!
   3O.to ICL.narrow.DIM.REL way more.than ICL.wide
   No! It is wider than it is allowed to be.

d. Tléik’! Aṣ yaagú aadé saduwahéiyi yé no 1sg.POSS boat 3O.to IMP.IndefS.allow.REL way
   yáanáx yéi kakwliwísáa!
   more.than thus ICL.narrow
   No! My boat is narrower than it is allowed to be.

(90) **Conclusion**

• In Tlingit, negative predicates like *kulisáa* ‘narrow’ are underlyingly the negation of a positive predicate (kakwliwóox’ ‘wide’)
• This is the case even for negative predicates which do not seem to overtly contain negation.
Problem: Where did Irrealis Go?

• Recall that negation in Tlingit obligatorily triggers Irrealis morphology (21)...
• In sentences like (87b) and (89d), the predicate kulisáa ‘narrow’ has realis morphology...
• If there’s an underlying negation, why isn’t the verb in irrealis mode?

One Possible Explanation

a. In the syntax, a verb is assigned the irrealis feature [IRR] when it is c-commanded by negation (in the same minimal clause)

\[ \text{NegP} \rightarrow \text{NegP} \]

\[ \text{NEG} \rightarrow \text{NEG} \]

\[ \text{VP} \rightarrow \text{VP} \]

\[ \text{V} \rightarrow \text{V} \]

[IRR]

b. In PF, NEG can undergo morphological merger with a V, creating a (surface) monomorphemic negative predicate.

When this happens, the resulting PF-derived word doesn’t inherit the IRR feature of the underlying V

\[ [\text{NEG}] [v \text{[IRR]}] \rightarrow [v [\text{NEG}] [v \text{[IRR]}]] \rightarrow \text{ku-l-saa ‘narrow’} \]

c. Thus, negative predicates formed by morphological merger of NEG with V are not irrealis marked.

Key Consequence: A Problem for Heim’s (2008) Analysis

• Under Heim’s (2008) analysis in (84), the subordinate clause in (87b) – repeated below – contains an elided negation

\[ [\text{NEG}] [\text{0C.L} \text{.long.REL} \text{yé̀} \text{ICL} \text{.narrow}] \]

\[ \text{It’s narrower than it is long. (It’s narrower than how long it is.)} \]

• According to our analysis in (92), an elided negation should still trigger irrealis mode on the verb. And so the analysis wrongly predicts that the subordinate verb should be irrealis.
8. Conclusion

- In Tlingit, certain negative (gradable) predicates are formed from the combination of clausal negation and a positive root.

- I’ve put forth an analysis where these predicates are formed by means of a degree operator that must move to SpecNegP (a kind of ‘negative concord Deg-OP’).
  - This analysis captures an array of facts regarding the ways in which these negative predicates interact with degree modifiers.

- The existence of ‘cross-polar nomalies’ and ‘Rullmann ambiguities’ in Tlingit suggests that even negative predicates that lack overt negation nevertheless contain a covert negation (Büring 2007a,b; Heim 2008).
  - Moreover, independent morpho-syntactic features of Tlingit provide motivation for Büring’s analysis of ‘cross-polar nomalies’ (over Heim’s).

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References


