Negation and Negative Antonyms in Tlingit

1. Introduction: Building upon original fieldwork, this talk documents and formally analyzes a curious class of stative (adjectival) predicates in the Tlingit language. Both Büring (2007) and Heim (2008) argue that negative adjectives in English (e.g. short, bad, etc.) are morpho-syntactically derived from a structure containing negation and the positive antonym. That is, a negative adjective like short underlyingly has the structure [AP NOT [A TALL]]. It is therefore striking that a small but highly frequent class of such negative adjectival concepts are expressed in Tlingit through the overt combination of (i) negation, (ii) the positive antonym, and (iii) an additional (unproductive) morphological operation. Regarding (iii), the most common such operation changes the so-called ‘classifier prefix’ of the positive antonym to sh-.

(1) Negation in Negative Predicates of Tlingit

<table>
<thead>
<tr>
<th>Positive Predicate</th>
<th>Negative Predicate</th>
<th>Negation of Positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>yak’éi 0CL.good</td>
<td>télÉ ushk’É</td>
<td>télÉ uk’É</td>
</tr>
<tr>
<td><em>It is good.</em></td>
<td><em>It is bad.</em></td>
<td><em>It is not good.</em></td>
</tr>
</tbody>
</table>

In this talk, I develop and defend a formal syntactic and semantic analysis of negative predicates like (1b), building upon the aforementioned work of Büring (2007) and Heim (2008).

2. Morpho-Syntactic Status of the Negation: One obvious question raised by the pattern in (1) concerns the morpho-syntactic status of the negation in (1b). In such negative predicates, is the negation marker télÉ morphologically incorporated into the verb (like the English prefix un- in unfriendly), or is it an instance of VP-external, clausal negation (such as in sentences like (1c))? Importantly, the following facts suggest that the negation in predicates like (1b) is not incorporated, and is rather an instance of clausal negation.

First, it is possible for the negation of a negative predicate to be separated from the predicate by phrasal material. Such material includes focus particles (2a), dubitatives (2b), and NPIs (2ci).

(2) Negation in Negative Predicates Followed by Phrasal Material

<table>
<thead>
<tr>
<th>TélÉ áwÉ ushk’É</th>
<th>TélÉ shákdewÉ ushk’É</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEG FOC IRR.ShCL.good</td>
<td>NEG DUB IRR.ShCL.good</td>
</tr>
<tr>
<td><em>It IS bad.</em></td>
<td><em>It’s probably bad.</em></td>
</tr>
</tbody>
</table>

Note, moreover, that speakers report a difference in meaning between (2ci) – containing a negative predicate – and (2cii) – the negation of a positive predicate. As reflected in their translations, (2cii) is consistent with some items being merely so-so, while (2ci) is not, and requires every item to be bad.

Secondly, it is not possible in Tlingit to directly negate a negative predicate formed from negation (3a). Instead, speakers use a bi-clausal structure (3b). Note that while incorporated negation can usually be directly negated (e.g., English, ‘He is not unlucky’), many languages disallow multiple instances of clausal negation, again pointing to the negation in Tlingit negative predicates being VP-external.

(3) Inability to Directly Negate Negative Predicates Formed from Negation

<table>
<thead>
<tr>
<th><em>TélÉ ushk’É</em></th>
<th><em>TélÉ yéi uti télÉ ushk’É</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>NEG IRR.ShCL.lucky</td>
<td>NEG thus IRR.3S.be NEG IRR.ShCL.lucky</td>
</tr>
<tr>
<td><em>It isn’t so that he’s unlucky.</em></td>
<td></td>
</tr>
</tbody>
</table>

3. Interaction with Degree Modifiers: The formal analysis presented below is designed to capture the following key generalization regarding the interaction between negation and degree modifiers.

(4) Scope and Word Order Interactions Between Negation and Degree Modifiers

To modify a negative predicate (formed from negation) with a degree modifier, the degree modifier must precede negation télÉ. To negate a positive predicate modified by a degree modifier, the negation télÉ must precede the degree modifier.

For reasons of space, these generalizations will only briefly be illustrated by the facts in (5) below. In a scenario where both plates of food are equally good, only sentence (5a) is felicitous. This supports the claim in (4) that the order ‘Degree Modifier > Negation’ must be interpreted as the degree modification of a negative predicate, rather than the negation of a positive predicate modified by a degree expression.
(5) **Scenario:** Two plates of food are equally good.

a. \( \text{Tlél a yáanáx u̱k'é} \)

b. \( \text{## A yáanáx tél ushk'é} \)

In (6), the contextual variable 'Lc' refers to the 'non-extreme' degrees upon the scale associated with the predicate in question. For yak'ei 'good', these would be the degrees of goodness that qualify as neither 'good' nor 'bad'. A sentence like (1a) is assumed to have the LF in (7a); in this LF, the (degree-)relative operator 'OP' is initially merged as the first argument of yak'ei 'good', but then undergoes movement, creating a syntactically derived predicate of degrees. This derived predicate of degrees is sister to the head POS, yielding the truth-conditions in (7b).

(7) a. LF of Sentence (1a): \[ \text{POS [ OP, } \text{ [ PRO [ [ POS ]]]} \]

b. Truth-Conditions of LF (7a): \( L_c \subset \{ d' : \text{goodness}(x) \geq d' \} \)

The truth-conditions in (7b) state that the degrees of goodness falling below \( x_2 \)'s degree of goodness contain the 'non-extreme' degrees. This could only hold if \( x_2 \)'s degree of goodness falls above all those 'non-extreme' degrees, and so must be among those qualifying as 'good'.

I propose that in addition to the 'OP' in (7a), Tlingit contains a (degree-)relative operator NEG-OP, which must move to the specifier of (clausal) NegP. In addition, adjacency to NEG-OP (or its trace) causes morphological changes in certain predicates, such as a shift of the classifier prefix to sh-. Thus, the sentence in (1b) is assumed to have the LF in (8a), and therefore the truth-conditions in (8b).

(8) a. LF of Sentence (1b): \[ \text{POS [ NEG-OP, [ NEG [ PRO, [ PRO [ [ POS ]]]]]]} \]

b. Truth-Conditions of LF (8a): \( L_c \subset \{ d' : \neg \text{goodness}(x) \geq d' \} \)

The truth-conditions in (8b) state that the degrees of goodness that don't fall below \( x_2 \)'s degree of goodness contain the non-extreme degrees. This could only hold if \( x_2 \)'s degree of goodness falls below all those degrees, and so must be among those qualifying as 'bad'.

In this way, the contrast in meaning between (1a) and (1b) is derived. Furthermore, a sentence like (2ci) is predicted to have the LF in (9a), and thus the truth-conditions in (9b).

(9) a. LF of Sentence (2ci): \[ \text{POS [ NEG-OP, [ NEG [ ANYTHING [ PRO, [ PRO [ [ POS ]]]]]]]]} \]

b. Truth-Conditions of LF (9a): \( L_c \subset \{ d' : \exists x (\text{goodness}(x) \geq d') \} \)

According to (9b), the non-extreme degrees are contained within those degrees of goodness such that nothing has a degree of goodness above them. This could only hold if everything's degree of goodness falls below the non-extreme degrees, and so everything qualifies as 'bad', as reported for sentence (2ci).

Finally, sentences like (5b) are predicted to have an LF like (10b), and so the meaning in (10c).

(10) a. Semantics of Yáanáx 'More Than': \[ \lambda P_{\text{OP}} : [ \lambda Q_{\text{OP}} : P \subseteq Q ] \]

b. LF of Sentence (5b):
\[ \text{NEG-OP, [ NEG [ PRO, [ PRO [ [ POS ]]]]]]} \]

c. Truth-Conditions of LF (10b):
\[ \{ d' : \neg (\text{goodness}(x) \geq d') \} \subset \{ d' : \neg (\text{goodness}(x) \geq d') \} \]

The truth-conditions in (10c) state that the degrees of goodness that don't fall below \( x_2 \)'s goodness contain the degrees of goodness that don't fall below \( x_3 \)'s. This can only hold if \( x_3 \)'s goodness is lower than \( x_2 \)'s, and so only if \( x_2 \) is worse than \( x_3 \). In a similar way, I show that the data supporting the other half of generalization (4) also follow from the proposed account.

In addition to the results above, I discuss the predictions the proposed account makes regarding (i) intervention effects in Tlingit degree constructions, (ii) so-called 'cross-polar nomalies' in Tlingit (Büring 2007), and (iii) the dependency between the morphological changes triggered by NEG-OP (e.g. the sh- prefix) and the scope of NEG with respect to the degree modifier.