

# The Good, the ‘Not Good’, and the ‘Not Pretty’: Negation in the Negative Predicates of Tlingit<sup>1</sup>

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**ABSTRACT:** This paper develops and defends a semantic/syntactic analysis of a curious set of negative gradable predicates in the Tlingit language, and shows that the analysis has some important consequences concerning the range of cross-linguistic variation in degree constructions. In Tlingit, certain negative gradable predicates are formed by negating a positive root and then applying an additional morphological operation: e.g. *k'éí* ‘good’, *tlél uk'é* ‘not good’, *tlél ushké* ‘bad’. I show that (i) the negation in forms like *tlél ushké* ‘bad’ is VP-external, clausal negation, and is not an incorporated negation like English *un-*, and (ii) the meaning of these forms is indeed that of a gradable negative predicate, and is not the propositional negation of the positive predicate (cf. *tlél uk'é* ‘not good’). Under the proposed analysis, the additional morphological operation observed in these forms is the reflex of a special degree relativizer, one that must undergo movement to Spec-NegP. In addition, Tlingit differs from English and other languages in that degree operators – like *POS* and comparative operators – can be attached high in the clause, above sentential negation. In addition to capturing various facts concerning these negative predicates, the proposed analysis raises some novel puzzles concerning intervention effects in the movement of degree operators, and provides support for the view that negative predicates like *bad* are morpho-syntactically derived from positive predicates like *good* (Rullmann 1995; Heim 2006, 2008; Büring 2007a,b; Beck 2012).

## 1. Introduction: The Puzzle of Negation in Tlingit Negative Gradable Predicates

The primary focus of this paper is a puzzle concerning the morphosyntax of certain negative predicates in Tlingit, a Na-Dene language of Alaska, British Columbia, and the Yukon. We will see, however, that a proper understanding of these forms holds broader consequences for our understanding of seemingly unrelated puzzles in the semantics of adjectives and degree constructions, and provides indirect support for the view that negative adjectives like *short* can underlyingly contain a negative operator (Rullmann 1995; Büring 2007a,b; Heim 2008).

To begin by laying out the central puzzle, there is in Tlingit 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 (*tlél*, or *hél*), and (iii) an additional (unproductive) morphological operation. Some illustrative examples are collected below.

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(1) Negation and Negative Antonyms in Tlingit <sup>2</sup>

a.	yak'éi 0CL.good <i>It is good.</i>	b.	tlél ushk'é NEG IRR.shCL.good <i>It is bad.</i>	c.	tlél uk'é NEG IRR.0CL.good <i>It is not good.</i>
d.	yaa kudzigei sCL.smart <i>He is smart.</i>	e.	tlél yaa kooshgé NEG IRR.shCL.smart <i>He is dumb / foolish.</i>	f.	tlél yaa koosgé. NEG IRR.sCL.smart <i>He is not smart.</i>
g.	liḡéitl ICL.lucky <i>She is lucky.</i>	h.	tlél ushḡéitl NEG IRR.shCL.lucky <i>She is unlucky.</i>	i.	tlél ulḡéitl NEG IRR.ICL.lucky <i>She is not lucky.</i>
j.	yanéek' 0CL.tidy <i>It is tidy.</i>	k.	tlél ushnéek' NEG IRR.shCL.tidy <i>It is messy.</i>	l.	tlél unéek' NEG IRR.0CL.tidy <i>It is not tidy.</i>
m.	k'asigóo sCL.fun <i>It is fun.</i>	n.	tlél x'eishgú NEG IRR.shCL.fun <i>It is boring.</i>	o.	tlél k'eisgú NEG IRR.sCL.fun <i>It is not fun.</i>
p.	litseen ICL.strong <i>She is strong.</i>	q.	tlél ulcheen NEG IRR.ICL.strong <i>She is weak.</i>	r.	tlél ultseen NEG IRR.ICL.strong <i>She is not strong.</i>

In the examples above, (1a, d, g, j, m, p) provide the positive Tlingit predicates meaning 'good', 'smart', 'lucky', 'tidy', 'fun', and 'strong', while (1b, e, h, k, n, q) provide their negative antonyms meaning 'bad', 'dumb/foolish', 'unlucky', 'messing', 'boring', and 'weak'. For comparison, sentences (1c, f, i, l, o, r) provide the Tlingit translations of 'not good', 'not smart', 'not lucky', 'not tidy', 'not fun', and 'not strong'.

Looking across the rows above, it's apparent that the negative antonyms in (1b, e, h, k, n, q) and the negated positive predicates in (1c, f, i, l, o, r) share the negation marker *tlél*. However, the negative antonyms also exhibit additional morphological operations that are not found in either the positive predicates or their (pure, propositional) negations. For example, in (1a, d, g, j, m), the so-called 'verbal classifier' of the positive predicate – 0CL, sCL, or ICL in the glosses – changes to the so-called 'sh-series' verbal classifier in the negative predicate. This yields the key surface contrast between the forms *tlél uk'é* 'it is not good' (1c) and *tlél ushk'é* 'it is bad' (1b). While this 'verbal classifier shift' is the predominant morphological operation distinguishing the

<sup>2</sup> 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: 0CL '0-classifier', 1 '1<sup>st</sup> person', 3 '3<sup>rd</sup> person', DEM 'demonstrative', DIM 'diminutive', ERG 'ergative', EXH 'exhaustive', FOC 'focus particle', FUT 'future', GEN 'genitive'; IMP 'imperfective', IRR 'irrealis', ICL 'l-classifier', NEG 'negation', NOM 'nominative'; O 'object', PART 'partitive', PL 'plural', POSS 'possessive', PRV 'perfective', REL 'relativizer', S 'subject', sCL 's-classifier', sg 'singular', shCL 'sh-classifier', SUB 'subordinator'; TOP 'topic marker'.

negative predicates above from negated positive predicates, other consonantal mutations can also take place alongside it or in place of it. For example, in (1m-o), the so-called ‘thematic prefix’ *k’a-* undergoes mutation to *x’a-* in the negative antonym, while in (1p-r) the onset of the root *tseen* ‘strong/strength’ undergoes mutation to *cheen* in the antonym meaning ‘weak’.<sup>3</sup>

These facts obviously raise the following overarching question: what is the morphosyntax and morphosemantics of the negative antonyms in (1b, e, h, k, n, q)? That is, what is their morphosyntactic structure, and how does that structure get mapped on to their observed meaning? Although these questions will be our central focus, we will also consider a number of related matters, including two additional puzzles in Tlingit that bear obvious connections to the facts in (1). The first is that there are in Tlingit negative gradable predicates that are formed with negation, but which contain lexemes that cannot appear in a positive form. For example, sentence (2a) is one way of expressing in Tlingit that someone is mean, grumpy, irritable. Sentence (2a) appears to be the negation of a predicate that would be pronounced as in (2b), if that predicate could appear without negation. But, it cannot. Sentence (2b) does not have any recognizable meaning to the speakers I work with. Parallel facts hold for the sentences in (2c,d).

## (2) Obligatorily Negated Predicates in Tlingit

- |    |  |    |                                 |
|----|--|----|---------------------------------|
| a. | <b>Tlél</b> chaa x’etí.<br>NEG IRR.0CL.nice(?)<br><i>He’s mean / grumpy / irritable.</i> | b. | * Chaa x’ayatee.<br>0CL.nice(?) |
| c. | <b>Tlél</b> gooháa.<br>NEG IRR.0CL.unclear(?)<br><i>It’s obvious.</i>                    | d. | * Gayaháa.<br>0CL.unclear(?)    |

The second related puzzle is that there are in Tlingit a few positive gradable predicates whose antonyms are expressed by simply negating the positive predicate. For example, the way in Tlingit to express that something is ‘cheap’ is with the form in (3b), which appears to simply be the negation of (3a), meaning ‘it is expensive’.

## (3) Antonyms Expressed Purely with Negation in Tlingit<sup>4</sup>

- |    |   |    |  |
|----|---|----|--|
| a. | x’alitseen<br>ICL.expensive<br><i>It is expensive (dear).</i> | b. | <b>tlél</b> x’eiltseen<br>NEG IRR.ICL.expensive<br><i>It is cheap (low value).</i> |
|----|---|----|--|

<sup>3</sup> It should be noted that the ‘sh-series’ verbal classifier of Tlingit is not restricted to just these negative predicates. It has a much broader distribution, and can appear in predicates that are not negative, such as *shigéek* ‘stingy’ (3e), *yaa nashxíx* ‘run’, and *kashxeet* ‘write’. Consequently, like many of the verbal prefixes of Na-Dene languages, this morpheme does not seem to have an inherent semantics, but is simply selected by certain other morphemes and roots. For this reason, I will not provide a general semantics or analysis for the sh-series classifier itself, but instead will view its appearance in negative antonyms like those in (1) as due to a morpho-phonological rule triggered by other, semantically contentful, functional material in these verbs.

<sup>4</sup> For some speakers, the roots in (3c,d) are pronounced as *-lée* and *-lí*, respectively. Similarly, for some speakers the roots in (3e,f) are pronounced as *-géik*.

- |  |   |
|--|---|
| c.    naaléi<br>0CL.far<br><i>It is far.</i>           | d.    tlél    unalé<br>NEG IRR.0CL.far<br><i>It is near.</i>            |
| e.    shigéek<br>shCL.stingy<br><i>He is stingy.</i>   | f.    tlél    ushgéek.<br>NEG IRR.shCL.stingy<br><i>He is generous.</i> |
| g.    kayahéil'k<br>0CL.strong<br><i>He is strong.</i> | h.    tlél    koohéil'k<br>NEG IRR.0CL.strong<br><i>He is weak.</i>     |

The facts in (2)-(3) raise the following questions. First, regarding lexemes like *chaa x'a-tee* in (2), why are they unable to appear without negation? Secondly, regarding the negated forms in (3), can we show that such forms truly have strong, antonymic readings, and that they aren't always just semantically the propositional negation of the positive roots? That is, can we show that (3b) can truly mean 'cheap', and not just 'not expensive'? And, if this is indeed the case, how do those negated forms in (3) get those stronger, antonymic readings? Ideally, of course, we should hope that an analysis of the key pattern in (1) would shed some light onto these intuitively related matters.

To facilitate the subsequent discussion, I will introduce here the term 'NEG antonym', defined as in (4).

(4)    **Special Terminology: 'NEG Antonym'**

The term 'NEG antonym' applies to (i) the negative predicates in (1b, e, h, k, n, q), and the negated predicates in (2a, c) and (3b, d, f, h).

As intriguing as these NEG antonyms are, we should note that they are relatively rare across the Tlingit lexicon as a whole. That is, while the NEG antonyms in (1)-(3) have a rather high frequency of usage, most negative predicates in Tlingit are not transparently derived from antonymous positive predicates; the following are a few illustrative examples.

(5)    **'Lexical Antonyms' in Tlingit**

- |  |   |
|--|---|
| a.    yat'áa<br>0CL.hot<br><i>It's hot.</i>          | b.    si.áat'<br>sCL.cold<br><i>It's cold.</i>          |
| c.    yasátk<br>0CL.fast<br><i>He's fast.</i>        | d.    lich'éeyakw<br>lCL.slow<br><i>He's slow.</i>      |
| e.    yéi kwliwóox'<br>lCL.wide<br><i>It's wide.</i> | f.    yéi kwlisáa.<br>lCL.narrow<br><i>It's narrow.</i> |

- |    |  |    |  |
|----|--|----|--|
| g. | sit'éeex'<br>sCL.hard<br><i>It's tough/hard.</i> | h. | dixwáach<br>0CL.soft<br><i>It's soft/flexible.</i> |
|----|--|----|--|

For purely descriptive purposes, I will refer to negative predicates like those in (5b, d, f, h) above as ‘lexical antonyms’. Despite their clear surface differences from the NEG antonyms, I will present evidence that the lexical antonyms of Tlingit are also morpho-syntactically derived from positive predicates, through in a manner distinct from the NEG antonyms. In particular, I will propose that the lexical antonyms of Tlingit are formed via a process akin to that proposed by Büring (2007a,b) and Heim (2008) for the negative predicates of English. Under those analyses, even negative predicates that seem on the surface to be monomorphemic are derived from a structure containing (i) the positive antonym, and (ii) a negation.<sup>5</sup> Thus, a negative adjective like (6a) in English underlyingly has the structure in (6b).

**(6) Negation in Negative Predicates of English (Büring 2007a,b; Heim 2008)**

- |    |                              |            |
|----|------------------------------|------------|
| a. | <i>Pronounced Form:</i>      | ‘short’    |
| b. | <i>Underlying Structure:</i> | [NOT LONG] |

Importantly, the negation operator in (6b) is not sentential negation, but rather a kind of incorporated negation, like the English prefix *un-*. I will argue that the same facts motivating the analysis in (6) for English hold equally well for the lexical antonyms of Tlingit. Furthermore, we will see that certain additional, distinguishing features of the lexical antonyms in (5) would follow under this account.

The remainder of this paper is structured as follows. In the following section, I will provide some key background on the Tlingit language and the methodology used in this study. Section 3 then presents some basic interactions between Tlingit NEG antonyms and degree modifiers. These data will provide an important basis for certain empirical arguments in Sections 4 and 5. In Section 4, I present the evidence that the negation found in the negative predicates of (1b, e, h, k, n, q) is VP-external, clausal negation, and is not some form of incorporated negation like the English prefixes *un-* and *non-*. In Section 5, I examine the licensing conditions of the special morphological operations observed in the NEG antonyms of (1), *i.e.*, the verbal classifier shift and the consonantal mutations. We will see that those morphological operations are only licensed by clausemate clausal negation. Section 6 then turns to the NEG antonyms in (2)-(3). I show that the NEG antonyms in (3) do indeed receive strong, antonymic readings, and that the negation in these forms and in forms like (2a, c) is VP-external (clausal, non-incorporated) negation. In Section 7, I present the formal syntactic and semantic analysis of Tlingit NEG antonyms, one that builds upon the key devices introduced by Rullmann (1995), Büring (2007a,b), and Heim (2006, 2008). Following this, I explore a number of further predictions the analysis makes regarding Tlingit degree constructions. I also identify some potential consequences of the analysis for our understanding of intervention effects in the movement of degree operators. Finally, I turn to the question of the lexical antonyms of Tlingit and the nature of their morpho-syntax/semantics. I show that some of the same phenomena motivating a

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<sup>5</sup> Following Rullmann (1995), both Büring and Heim refer to this negation as ‘LITTLE’, on analogy to the use of ‘little’ in constructions like ‘he is little amused’. However, semantically, their ‘LITTLE’ operator is simply a negation operator, and so I will refer to it as ‘NOT’ or ‘NEG’ throughout this paper.

decompositional analysis of negative predicates in English – namely, so-called ‘Cross-Polar Nomalies’ – also hold for the lexical antonyms of Tlingit. I propose that the key morpho-syntactic difference between NEG antonyms and lexical antonyms is that the latter are formed not from VP-external clausal negation, but an abstract incorporated negation, and I argue that this can account for certain additional differences between NEG antonyms and lexical antonyms.

## 2. Linguistic and Methodological Background

The Tlingit language (Lingít; /ɬn.kít/) is the traditional language of the Tlingit people of Southeast Alaska, Northwest British Columbia, and Southwest Yukon Territory. It is the sole member of the Tlingit language family, a sub-branch of the larger Na-Dene language family (Campbell 1997, Mithun 1999, Leer *et al.* 2010). It is thus distantly related to Athabaskan languages like Navajo, and shares their complex prefixal verbal morphology (Leer 1991). As mentioned in Footnote 2, I will largely be suppressing this complex structure in my glossing of Tlingit verbs.

Tlingit is a highly endangered language. While there has been no official count of fully fluent speakers, it is privately estimated by some that there are less than 200 (James Crippen (Dzéiwsh), Lance Twitchell (X’unei), p.c.). Most of these speakers are above the age of 70, and there is no known individual below the age of 50 who learned Tlingit as their first language. There are extensive, community-based efforts to revitalize the language, driven by a multitude of Native organizations and language activists too numerous to list here. Thanks to these efforts, some younger adults have acquired a significant degree of fluency, and some of their children are acquiring Tlingit alongside English as their first languages.

Unless otherwise noted, all data reported here were obtained through interviews with native speakers of Tlingit. Seven fluent Tlingit elders participated: Lillian Austin (Yax̄dulákt), George Davis (Kaxwaan Éesh), Margaret Dutson (Shak’sháani), Selena Everson (Kaséix), William Fawcett (Kóoshdaak’w Éesh), Carolyn Martin (K’altseen), and John Martin (Keihéenák’w). All seven were residents of Juneau, AK at the time of our meetings, and are speakers of the Northern dialect of Tlingit (Leer 1991). Two or three elders were present at each of the interviews, which were held in classrooms at the University of Alaska Southeast in Juneau, AK.

The linguistic tasks presented to the elders were straightforward translation and judgment tasks. The elders were presented with various scenarios, paired with English sentences that could felicitously describe those scenarios. The scenarios were described orally to the elders, all of whom are entirely fluent in English, and a written (English) description was also distributed. The elders were asked to freely describe the scenarios, as well as to translate certain targeted English sentences describing them. In order to more systematically study their semantics – and to obtain negative data – Tlingit sentences were also examined using truth/felicity judgment tasks, a foundational methodology of semantic fieldwork (Matthewson 2004). The elders were thus asked to judge the ‘correctness’ (broadly speaking) of various Tlingit sentences relative to certain scenarios. Unless otherwise indicated, all speakers agreed upon the reported status of the sentences presented here.

### 3. Interactions Between NEG Antonyms and Degree Modifiers

As we will see later, the behavior of NEG antonyms with degree modifiers in Tlingit can provide some important insights into the morphosyntax and morphosemantics of these structures. In this section, I will simply lay out the key data, establishing the generalization in (7).

#### (7) Scope/Word-Order Generalization for Negation and Degree Modification

- a. If a NEG antonym is to be modified by a degree modifier, the degree modifier must precede the negation in the NEG antonym.
- b. If a positive predicate modified by a degree modifier is to be negated, the negation must precede the degree modifier.

To begin unpacking this, generalization (7a) is illustrated by the data in (8)-(12) below. Each of these examples pairs the degree modification of a positive predicate with the degree modification of its NEG antonym. In each of these examples, the degree modifier at play is the comparative modifier *yáanáx* ‘more than’. Note that in every sentence where the NEG antonym is modified by *yáanáx*, the degree modifier precedes the negation marker *tlél* (8b)-(12b).

- |      |    |   |                    |  |  |                                       |                   |
|------|----|---|--------------------|--|--|---------------------------------------|-------------------|
| (8)  | a. | <b>A yáanáx</b><br><b>3O.more.than</b>    | áwé<br>FOC         | yak’ei<br>0CL.good                     | yáat’aa<br>this.one                    | <i>This one is better than it.</i>    | (MD) <sup>6</sup> |
|      | b. | <b>A yáanáx</b><br><b>3O.more.than</b>    | <b>tlél</b><br>NEG | ushk’é<br>IRR.shCL.good                |  | <i>It is worse than it.</i>           | (JM)              |
| (9)  | a. | Wéit’aa<br>that.one                       | áwé<br>FOC         | <b>a yáanáx</b><br><b>3O.more.than</b> | litseen<br>1CL.strong                  | <i>That one is stronger than him.</i> | (WF)              |
|      | b. | <b>A yáanáx</b><br><b>3O.more.than</b>    | áwé<br>FOC         | <b>tlél</b><br>NEG                     | ulcheen<br>IRR.1CL.strong(+RootChange) | <i>He is weaker than him.</i>         | (CM)              |
| (10) | a. | <b>Ax yáanáx</b><br><b>1sgO.more.than</b> | yaa<br>sCL.smart   | kudzigéi                               |  | <i>She is smarter than me.</i>        | (MD)              |

<sup>6</sup> Throughout the remainder of this paper, I will indicate whether a Tlingit sentence was (i) constructed by myself and judged by the elders to be acceptable, or (ii) actually constructed and offered by the elders themselves. In the former case, the sentence will be followed by a ‘(C)’, for ‘constructed’. In the latter case, I will write the initials of the speaker who provided the sentence: (LA) for Lillian Austin, (GD) for George Davis, (MD) for Margaret Dutson, (SE) for Selena Everson, (WF) for William Fawcett, (CM) for Carolyn Martin, and (JM) for John Martin.

- b. **Héit'aa yáanáx** **hél** yaa **kooshgé**  
**that.one more.than** NEG IRR.shCL.smart  
*He's dumber than that one.* (MD)
- (11) a. **Kúnáx a yáanáx** naalée  
 very 3O.more.than 0CL.far  
*It's a lot farther than that.* (MD)
- b. **A yáanáx tlél** unalí  
**3O.more.than**NEG IRR.0CL.far  
*It's closer than that.* (MD)
- (12) a. **Yáat'aa a yáanáx** **x'alitseen**  
 this.one **3O.more.than** ICL.expensive  
*This one is more expensive than that.* (WF)
- b. **A yáanáx** áwé **kúnáx tlél** **x'eiltseen** yáat'aa  
**3O.more.than**FOC very NEG IRR.ICL.expensive this.one  
*This one is much cheaper than that.* (MD)

The generalization in (7b) is illustrated by sentences (13)-(19) below. Each sentence expresses the negation of a positive predicate modified either by *yáanáx* 'more than' or *tlax* 'very', and in each sentence the negation marker *tlél* precedes the degree modifier.

- (13) **Tlél a yáanáx** uk'é  
**NEG 3O.more.than** IRR.0CL.good  
*It's not better than that. (cf. (8b))* (MD)
- (14) **Tlél tlax** uk'é  
**NEG very** IRR.0CL.good  
*It's not very good.* (MD)
- (15) **Tlél tlax a yáanáx** **x'eiltseen**  
**NEG very 3O.more.than** IRR.ICL.expensive  
*It's not much more expensive. (cf. (12b))* (MD)
- (16) **Tlél a yáanáx** unalí  
**NEG 3O.more.than** IRR.0CL.far  
*It's not farther than that. (cf. (11b))* (MD)
- (17) **Tlél tlax** unalí  
**NEG very** IRR.0CL.far  
*It's not very far.* (MD)



(18) **Hél tlaḡ** ut'á.  
**NEG very** IRR.0CL.hot  
*It's not very hot.* (MD)

(19) **Hél a yáanáḡ** ut'á  
**NEG 3O.more.than** IRR.0CL.hot  
*It's not hotter than that.* (MD)

The generalizations in (7) are further supported by the judgment data in (20)-(21). In the scenario under (20), only the negation of a comparative construction would be true. Because the food is equally good, the comparative a negative predicate (*e.g.*, “this is worse than that”) would be false. Importantly, speakers agree that in this scenario only sentence (20a) – where negation precedes the degree modifier – is true.

(20) Scenario: We have two plates of food that are equally good.

a. **Tlél a yáanáḡ** uk'é (13)  
**NEG 3O.more.than** IRR.0CL.good  
*It's not better than that.*  
Judgment: Acceptable in this scenario

b. **A yáanáḡ tlél** ushk'é (8b)  
**3O.more.thanNEG** IRR.shCL.good  
*It's worse than that.*  
Judgment: Not acceptable in this scenario

Similarly in the scenario under (21), only the negation of a comparative would be true. Because the hats are equally expensive, the comparative of a negative predicate (*e.g.*, “this is cheaper than that”) would be false. Speakers again agree that in this scenario, only sentence (21a) – where negation precedes *yáanáḡ* ‘more than’ – is true.

(21) Scenario: We have two hats that are equally expensive.

a. **Tlél a yáanáḡ** ḡ'eiltseen (C)  
**NEG 3O.more.than** IRR.ICL.expensive  
*It's not more expensive than that.*  
Judgment: Acceptable in this scenario

b. **A yáanáḡ tlél** ḡ'eiltseen (C)  
**3O.more.than NEG** IRR.ICL.expensive  
*It's cheaper than that.*  
Judgment: Not acceptable in this scenario.

In summary, the linear order of negation and a degree modifier can have important effects upon the interpretation of a Tlingit sentence. We'll see later in Section 7 that the formal syntactic and semantic analysis proposed here predicts the data above, as well as the overarching

generalization in (7). Prior to presenting that analysis, though, we will first examine a few other empirical matters concerning NEG antonyms. The first of these, detailed in the following section, concerns the morphosyntactic status of the negation marker in these predicates.

#### 4. Negation in Negative Predicates: Incorporated or Clausal?

From a certain perspective, it's not very surprising that some negative predicates in Tlingit seem to contain a negation marker. After all, it is not unusual for languages to form negative predicates via some kind of incorporated negation. Consider, for example, the English negative predicates in (22), each of which is derived from a positive predicate via a prefixal negation.

- (22) a. **unhappy**      b. **ineligible**      c. **non-syntactic**

Furthermore, in some languages, this morphologically incorporated negation can be lexically identical to VP-external clausal negation. For example, this has been reported for Malay (Kroeger 2014), as illustrated below.

- (23) a.      **tidak** adil                      (ii) Mereka      **tidak** menolong      kami  
               NEG fair                              3PL                NEG help                      1PL  
               *unfair*                                      *They didn't help us.*                      (Kroeger 2014)

Therefore, one might naturally wonder whether the NEG antonyms in (1) are structurally akin to such negative predicates as those in (22) and (23a). That is, perhaps the key structural difference between the NEG antonyms in (1b, e, h, k, n, q) and the negations of the positive predicates in (1c, f, i, l, o, r) is simply that in the former, the negation marker *tlél* is morphologically incorporated into the predicate, as in (22)-(23a). More precisely, under this view, the structure of the NEG antonyms in (1b, e, h, k, n, q) would be akin to that in (24a) below – where the negation occupies a position internal to the verb complex – while the structure of the negated predicates in (1c, f, i, l, o, r) would be akin to (24b) – where the negation occupies a projection outside the maximal projection of the verb.

#### (24) Incorporated Versus Non-Incorporated Negation

- a.      Incorporated Negation (22)-(23a):      [VP [V NEG [V PREDICATE ] ] ]  
 b.      Non-Incorporated Negation:              [NegP NEG [VP [V PREDICATE ] ] ]

In this section, I will present a variety of arguments against this view. We will see evidence that the NEG antonyms of (1b, e, h, k, n, q) have a structure like that in (24b), where the negation occupies the same high, clausal, VP-external position as the negation in the negated sentences of (1c, f, i, l, o, r). Consequently, a formal syntactic/semantic analysis of Tlingit NEG antonyms cannot straightforwardly mirror that of the negative predicates in (22) and (23), which have the structure in (24a).

Before I present this evidence, however, I will first put aside a line of argumentation that might at first seem appealing. Note that in the Tlingit NEG antonyms in (1), the negation marker *tlél* appears to the left of all the inflectional prefixes on the verb. Indeed, there are no verbal prefixes or proclitics that ever precede the negation in a NEG antonym. One might object that an

incorporated – and thus derivational – negation marker should rather appear to the right of the inflectional prefixes, at a position closer to the verbal stem itself. However, although it is true that derivational morphology tends across languages to be linearly closer to the stem/root than inflectional morphology, in Na-Dene languages like Tlingit, this generalization is massively violated (Rice 2000). Indeed, incorporated nouns in Tlingit themselves appear to the left of certain inflectional prefixes, as illustrated in (25).

- (25) **Ashaawaxích**  
 a-sha-wu-Ø-ya-xích  
 3O-head-PRV-3S-0CL-club  
*He clubbed him on the head.* (Dauenhauer & Dauenhauer 1987, 76: 102)

For this reason, the simple surface linear position of the negation marker in (1) is not especially strong evidence against its being morphologically incorporated into the NEG antonym, and having an underlying structure like that in (24a). In the following subsections, however, I will present stronger evidence against this possibility.

#### 4.1 NEG Antonyms and ‘Irrealis’ Morphology

A first, relatively minor indication that the negation of a NEG antonym is not incorporated concerns the distribution of so-called ‘irrealis mode’. If a clause in Tlingit is negated, the verb must appear within this irrealis mode, as illustrated by the contrast in (26). The principle exponent of irrealis mode is the verbal prefix *u-*, but there are also concomitant changes in the realization of aspectual inflection, and there can sometimes be effects on the length and tone of the verb stem (Leer 1991).

#### (26) Clausal Negation in Tlingit Triggers Irrealis Mode

- |    |  |    |                                      |
|----|--|----|--------------------------------------|
| a. | Tlél <b>uk’é</b><br>NEG <b>IRR</b> .0CL.good<br><i>It is not good.</i> | b. | * Tlél <b>yak’éi</b><br>NEG 0CL.good |
|----|--|----|--------------------------------------|

Furthermore, the presence of irrealis morphology requires there to be a negation, as shown by the contrast in (27).

#### (27) Irrealis Mode Requires Negation

- |    |   |    |                                       |
|----|---|----|---------------------------------------|
| a. | <b>Yak’éi</b><br>0CL.good<br><i>It is good.</i> | b. | * <b>Uk’é</b><br><b>IRR</b> .0CL.good |
|----|---|----|---------------------------------------|

With this in mind, let us note the following crucial fact: the NEG antonyms in (1) all obligatorily appear in the irrealis mode. This is reflected in the glosses for (1b, e, h, k, n, q), and is illustrated by contrasts like the one in (28).

(28) **NEG Antonyms Require Irrealis Mode**

- a. Tlél **ushk'é**                      b. \* Tlél **shik'éi**  
NEG **IRR.shCL**.good                      NEG **shCL**.good  
*It is bad.*

Thus, the negation in a NEG antonym triggers irrealis mode just like regular, VP-external propositional negation; this provides some initial indication that the former is not incorporated. After all, if the negative marker *tlél* in (1b, e, h, k, n, q) were some kind of incorporated, derivational morpheme – like the English prefix *un* – it would not be expected to have such effects on the realization of inflectional morphology, such as aspect and mood. That is, even though Na-Dene languages exhibit unexpected orderings of inflectional and derivational affixes (Rice 2000), the two morphological systems do seem to otherwise be independent of one another (Kari 1992).

On the other hand, it is of course controversial how fundamental the divide between ‘inflectional’ and ‘derivational’ morphology is, and what interactions between those systems should and should not occur. Consequently, facts like those in (28) are not on their own very strong evidence regarding the morphosyntactic status of negation in NEG antonyms. The following subsections, however, provide more striking evidence that these negative markers are not incorporated.

**4.2 The Separability of Negation in NEG Antonyms**

If the negation in NEG antonyms like (1b, e, h, k, n, q) were incorporated into the verb (24a), then it should not be possible for phrasal arguments of the verb to intervene between that negation and the rest of the verbal predicate. However, as shown below, this is indeed possible. That is, just as with clear instances of VP-external propositional negation, the negative marker in a NEG antonym can be separated from the rest of the verbal predicate by an NP argument.

In sentence (29), for example, the indefinite *daa sá* ‘anything’ appears between the negation-marker *tlél* and the remainder of the NEG antonym in (1b), *ushk'é*. The resulting sentence can be translated as ‘Everything is bad’, or – mirroring the surface syntax a bit more closely – ‘Not anything is any good’. Similarly, in (34), the indefinite NP *dóosh* ‘cat(s)’ appears between *tlél* and *ushk'é*, yielding a sentence that can be translated as ‘Cats are bad’ or (perhaps) ‘No cat is any good’. This same pattern can be observed below for the NEG antonyms *tlél x'eishgú* ‘boring’, *tlél yaa kooshgé* ‘dumb’, *tlél ulcheen* ‘weak’, and *tlél ushxéitl* ‘unlucky’.

- (29) Tlél **daa sá**                      ushk'é  
NEG **anything**                      IRR.shCL.good  
*Everything is bad. (~ Not anything is any good)*                      (C)

- (30) Hél **daa sá**                      x'eishgú  
NEG **anything**                      IRR.shCL.fun  
*Everything is boring. (~ Not anything is any fun.)*                      (LA)

- (31) Tlél **aadóo sá** yaa *kooshgé*  
 NEG **anyone** IRR.shCL.smart  
*Everyone is dumb. (~ Not anyone is any smart.)* (GD)
- (32) Tlél **aadóo sá** ulcheen  
 NEG **anyone** IRR.ICL.strong(+RootChange)  
*Everyone is weak. (~ Not anyone is any strong.)* (C)
- (33) Tlél **aadóo sá** ushxéitl  
 NEG **anyone** IRR.shCL.lucky  
*Everyone is unlucky. (~ Not anyone is any lucky.)* (C)
- (34) Hél **dóosh** ushk'é  
 NEG **cat** IRR.shCL.good  
*Cats are bad. (~ No cat is any good.)* (C)
- (35) Hél **dóosh** x'eishgú  
 NEG **cat** IRR.shCL.fun  
*Cats are boring. (~ No cat is any fun)* (C)
- (36) Hél **dóosh** ushxéitl  
 NEG **cat** IRR.shCL.lucky  
*Cats are unlucky. (~ No cat is any lucky.)* (C)
- (37) Hél **dóosh** ulcheen  
 NEG **cat** IRR.ICL.strong(+RootChange)  
*Cats are weak. (~ No cat is any strong.)* (C)

Importantly, the NP arguments in (29)-(37) are not incorporated into the verb. This can be concluded on the grounds that (i) Tlingit does not have productive noun incorporation, (ii) the NPs *dóosh* ‘cat’, *daa sá* ‘anything’, and *aadóo sá* ‘anyone’ have never been independently observed to undergo (unproductive) noun incorporation in Tlingit, and (iii) incorporated nouns in Tlingit do not appear to the left of verbal proclitics like *yaa* in (31) (Leer 1991). Given that the NPs in (29)-(37) are not incorporated, it follows that the negation markers in those sentences are not incorporated either. Consequently, the negation in those NEG antonyms is verb-external.

It was stated above that sentences like (29) can be translated as ‘Everything is bad’. This claim is based on both the meta-linguistic comments of native speakers, as well as judgment data like the following. Speakers report that there is a semantic contrast between sentences like (29) – repeated below as (38a) – and sentences where an NP argument occurs below the negation of a positive predicate, as in (38b). Speakers report that sentence (38b) best fits scenario (38c), while sentence (38a) is the best for scenario (38d).<sup>7</sup> Note furthermore that these judgments coincide with those for their putative English translations, ‘Nothing is good’ and ‘Everything is bad’, respectively.

<sup>7</sup> The scenario in (38d) and the observation that only (38a) is acceptable in it were brought to my attention by Tlingit elder John Martin.

(38) **Semantic Contrast Between NEG Antonym and Negated Positive Predicate**

- a. **Tlél** daa sá ushk'é  
NEG anything IRR.shCL.good  
*Everything is bad.* (C)
- b. **Tlél** daa sá uk'é  
NEG anything IRR.0CL.good  
*Nothing is good.* (C)
- c. (i) Scenario: None of the food at the party is really good. Some of it is so-so, and so it's not really *bad*. But nothing is good.  
(ii) Judgment: Sentence (38b) is the most acceptable.
- d. (i) Scenario: The entire beach has become contaminated by the cruise ships, leaving no spots decent for life.  
(ii) Judgment: Sentence (38a) is the most acceptable.

We will see in Section 7 that the proposed formal analysis of NEG antonyms is able to capture these contrasting judgments.

**4.3 Two NEG Antonyms Under a Single Negation**

The interactions between NEG antonyms and the disjunction marker *kach'u* 'or' in Tlingit provide further evidence that negation in the former is VP-external. To begin, in English and many other languages, it is possible for clausal negation to scope over a disjunction of two predicates. Sentence (39a) below illustrates such a structure in English.

- (39) a. Dave is **not** [ happy or friendly ].  
b. \* Dave is **un-** [ happy or friendly ].

Notice, however, that it is never possible for a morphologically incorporated negation, like the English prefix *un-*, to scope over such a disjunction. The reason for this, illustrated in (39b), is simply that a morphologically incorporated negation must be part of a single verb, and so cannot combine with a complex phrase, like the disjunction *happy or friendly*.

With this in mind, it is quite revealing that some (though not all) speakers of Tlingit accept structures like the one in (40).

(40) **Two NEG Antonyms Disjoined Under a Single Negation**

- Tlél** aadóo sá [ **ulcheen** kach'ú ushk'é ]  
NEG anyone IRR.ICL.strong(+RootChange) or IRR.shCL.good  
*Everyone is weak and bad. (~ Not anyone is any strong or any good.)* (C)

In this sentence, there is a single negation marker *tlél*, scoping over both the negative polarity item *aadóo sá* ‘anyone’ and the disjunction of *ulcheen* and *ushk’é*, key subcomponents of the NEG antonyms *tlél ulcheen* ‘weak’ and *tlél ushk’é* ‘bad’. Thus, given the reasoning just laid out, it follows that Tlingit speakers who accept sentences like (40) must analyze the negation in a NEG antonym as an instance of VP-external, clausal negation (24b).

But, what about speakers who reject sentences like (40)? Importantly, their rejection of (40) is simply be due to a broader rejection of VP disjunction. That is, speakers who rejected structures like (40) also all rejected ones like (41), which don’t contain any NEG antonyms.

- (41) **Tlél** aadóo sá [ **ool’éix** kach’u **at ushí** ]  
 NEG anyone IRR.IMP.3S.dance or IRR.IMP.3S.sing  
*Nobody is dancing or singing.* (C)

This suggests that the speakers who reject (40) do so because they reject *any* structure where two verbs are disjoined below a single sentential negation, and not because they analyze NEG antonyms as containing a verbally incorporated negation.

#### 4.4 Negating a NEG Antonym in Tlingit

If the negation in a Tlingit NEG antonym were structurally akin to incorporated negative prefixes like English *un-*, *in-*, *non-*, then there should be no syntactic incompatibility between that negation and a VP-external sentential negation. That is, as illustrated in (42) below, it is generally possible to directly negate a negative predicate, even one that is formed via an incorporated, prefixal negation.

- (42) a. He is **not unlucky**. b. This is **not impossible**.  
 c. It’s **not non-denominational**.

However, it is *not* possible in Tlingit to directly negate a NEG antonym. None of the sentences in (43) are reported to be acceptable.

- (43) a. \* Tlél tlél ushk’é  
 NEG NEG IRR.**sh**CL.good  
Judgment: Ill-formed; not meaningful; does not mean ‘not bad’  
 b. \* Tlél tlél yaa kooshgé  
 NEG NEG IRR.**sh**CL.smart  
Judgment: Ill-formed; not meaningful; does not mean ‘not dumb’  
 c. \* Tlél tlél ushxéitl.  
 NEG NEG IRR.**sh**CL.lucky  
Judgment: Ill-formed; not meaningful; does not mean ‘not unlucky’

One might wonder, though, whether the rejection of these sentences is simply due to speakers disliking the haplology created by the adjacency of the two negation markers. This possibility can be ruled out by the fact that speakers reject such sentences even when other

phrasal material intervenes between the negations. Recall, for example, that NEG antonyms can be modified by degree modifiers (44a), and that positive predicates modified by degree modifiers can be negated (44b). Nevertheless, it is not possible to directly negate a structure where a NEG antonym is modified by a degree modifier (44c). Similar facts are shown in (45).

- (44) a. A yáanáx **tlél** ushk'é  
 3O.more.than **NEG** IRR.shCL.bad  
*It's worse than it.* (MD)
- b. **Tlél** a yáanáx uk'é  
**NEG** 3O.more.than IRR.0CL.good  
*It's not better than that.* (MD)
- c. \* **Tlél** a yáanáx **tlél** ushk'é  
**NEG** 3O.more.than **NEG** IRR.shCL.bad  
Judgment: Ill-formed; not meaningful; does not mean 'it's not worse than it'
- (45) a. Tlax kúnáx áwé **hél** ushk'é  
 very really FOC **NEG** IRR.shCL.good  
*It's really very bad.* (MD)
- b. **Tlél** tlax uk'é  
**NEG** very IRR.0CL.good  
*It's not very good.* (MD)
- c. \* **Hél** kúnáx **hél** ushk'é  
**NEG**really **NEG** IRR.shCL.bad  
Judgment: Ill-formed; not meaningful; does not mean 'it's not really bad'

Given the well-formedness of structures like (44a,b) and (45a,b), the ill-formedness of (44c) and (45c) must be due to the presence of the two negation markers within a single clause, even though those markers are not directly adjacent to one another.

Of course, this inability to directly negate NEG antonyms raises the question of how Tlingit speakers are able to express the intended meanings of these sentences. How does one in Tlingit say 'he is not unlucky'? As illustrated below, one strategy speakers employ is to use a biclausal construction, akin to 'it is not so that he is unlucky'.

- (46) Tlél yéi utí tlél ushxéitl  
 NEG thus IRR.IMP.3S.is NEG IRR.shCL.lucky  
*He's not unlucky. (Lit., It's not so that he's unlucky.) (cf. (43c))* (C)

For other NEG antonyms, there are idiomatic ways of expressing their negation. For example, the preferred means for expressing the negation of *tlél ushk'é* 'bad' is via the idiom in (47).



- (47) Tlél wáa sá utí  
 NEG how IRR.IMP.3S.is  
*It's not bad. (Lit, It's not in any way)* (WF)

The overall pattern of facts in (43)-(45) would not be expected if the negation in these NEG antonyms were simply an incorporated verbal affix, as in (42). However, it would be expected if NEG antonyms were formed from VP-external clausal negation, as in (24b). After all, many languages disallow multiple instances of VP-external clausal negation (de Clercq & Wyngaerd 2016). For example, to the extent that English sentences like (48a,b) are possible, the second negation must be construed as a lower, predicate-level ‘constituent negation’.

- (48) a. ?? Dave is not not lucky.  
 b. ?? Joe didn't not see Sue.

Consequently, the ill-formedness of the Tlingit structures in (43)-(45) provides further indication that the negation marker in a NEG antonym is the same VP-external, clausal negation as is found in simple negated sentences.

## 5. The Licensing of the Morphological Operations in NEG Antonyms

Accepting the conclusion of the preceding section – that the negation in the NEG antonyms of (1) is VP-external, clausal negation (24b) – it follows that the additional morphological operations found in (1b, e, h, k, n, q) are in some way licensed by that negation. This, then, raises the question of what that licensing relationship is. What, exactly, are the licensing conditions governing the appearance of the verbal classifier shift in (1b, e, h, k, n) and the consonantal mutations in (1n) and (1q)?

In considering this question, one might at first be attracted to a potentially parallel construction in English: the modification of adjectives by the negative polarity item (NPI) *any*. That is, as shown in (49), it is possible in English for the NPI *any* to modify a predicate; indeed, such constructions were used as free English translations of the Tlingit NEG antonyms in (29)-(37) and (40).

- (49) a. This is not **any** good.                      b. This is not **any** fun.

Furthermore, the appearance of the NPI *any* in these sentences appears to strengthen the meaning of the overall sentence, to the point that their truth-conditions seem rather close to those of the corresponding antonymic sentences in (50).

- (50) a. This is **bad**.                                      b. This is **boring**.

One might therefore wonder whether the special morphological changes at play in the NEG antonyms of (1) have at base a syntax and semantics akin to the NPI *any* in sentences like (49). Under such a view, the licensing of those morphological operations would operate by the same mechanisms that govern such NPIs generally. Consequently, we should find that the verbal classifier shift and consonantal mutations observed in (1) are licensed not just by clausemate clausal negation, but by other downward entailing (DE) environments, such as in the antecedent

of a conditional (51). We should also find that those operations can be licensed by a negation sitting in a superordinate clause (52).

(51) **English ‘Any+Predicate’ Licensed in Conditional Antecedents**

[ If this food is **any** good ], then my father will eat it.

(52) **English ‘Any+Predicate’ Licensed by Superordinate Negation**

- a. I **don’t** think this food is **any** good.
- b. I **don’t** want this food to be **any** good.

To explore these predictions for Tlingit, let us begin by noting that as in many languages, interrogative pronouns in Tlingit can function as NPIs. That is, if an interrogative pronoun is in an upward entailing (UE) environment like (53a), the sentence can generally only be construed as a *wh*-question.<sup>8</sup> However, if the interrogative pronoun is in a DE environment (53b), then the sentence can only be construed with declarative force, and the interrogative pronoun appears to have the contribution of an NPI indefinite like English *any*.

- |      |    |                         |     |    |                                    |
|------|----|-------------------------|-----|----|------------------------------------|
| (53) | a. | <b>Aadóo sá</b> tá?     |     | b. | Tlél <b>aadóo sá</b> utá           |
|      |    | who IMP.3S.sleep        |     |    | NEG anyone IRR.IMP.3S.sleep        |
|      |    | <i>Who is sleeping?</i> | (C) |    | <i>Not anyone is sleeping.</i> (C) |

With this in mind, consider the contrast in (54) below. In sentence (54a), a conditional antecedent contains (i) an interrogative pronoun, and (ii) the root *k’ei* ‘good’ bearing the (basic) ‘0-series’ classifier. As expected from the data in (53), the sentence is well-formed, and the interrogative pronoun has the contribution of an indefinite NPI. Sentence (54b) is nearly identical, except that the predicate *k’ei* ‘good’ has undergone the verbal classifier shift in (1), and so bears the ‘*sh*-series’ classifier of (1b). The resulting sentence is ill-formed and not meaningful.

- |      |    |  |          |            |                              |
|------|----|--|----------|------------|------------------------------|
| (54) | a. | <b>Daa sá</b> k’éiyi,  | ax       | éeshch     | ya <sub>x</sub> ayaguxsaxáa. |
|      |    | anything <b>0CL</b> .good.SUB                                    | 1sg.POSS | father.ERG | 3O.FUT.3S.eat.EXH            |
|      |    | <i>If <b>anything</b> is good, my father will eat it all up.</i> |          |            | (WF)                         |
|      | b. | * <b>Daa sá</b> shak’éyi,  | ax       | éeshch     | ya <sub>x</sub> ayaguxsaxáa. |
|      |    | anything <b>shCL</b> .good.SUB                                   | 1sg.POSS | father.ERG | 3O.FUT.3S.eat.EXH            |

We find, then, that the verbal classifier shift observed in the NEG antonym *tlél ushk’é* ‘bad’ is not licensed in a conditional antecedent, even though this is an environment where NPIs are licensed in Tlingit (54a).

Furthermore, it appears that unlike the NPI licensing in (52), the verbal classifier shift of a Tlingit NEG antonym cannot be licensed across clauses. This can be seen from the contrasts in (55)-(56).

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<sup>8</sup> Some speakers also allow interrogative pronouns to function as indefinites in UE environments. When they occupy UE environments, however, such indefinites seem to carry ‘epistemic’ inferences that are not present when the indefinites occupy DE environments, akin to those discussed by Alonso-Ovalle & Menéndez-Benito (2015).

- (55) a. Yéi xwaajée **tlél** ushk'éyi  
 1sgS.think **NEG** IRR.shCL.good.SUB  
*I think that it's bad.* (JM)
- b. \* **Tlél** yéi xwají ushk'éyi  
**NEG** IRR.1sgS.think IRR.shCL.good.SUB
- (56) a. **Tlél** ax tuwáa ushgú **tlél** xat ushk'é.  
**NEG** IRR.1sgS.want **NEG** IRR.1sgS.shCL.good  
*I don't want to be bad.* (JM)
- b. \* **Tlél** ax tuwáa ushgú xat ushk'é.  
**NEG** IRR.1sgS.want IRR.1sgS.shCL.good

The ill-formed sentences in (55b) and (56b) differ from the well-formed sentences in (55a) and (56a) only in that a clausal boundary separates the negation *tlél* from the root *k'éi* ‘good’ undergoing the verbal classifier shift. We find, then, that unlike NPI licensing (52), the morphological operation seen in (1b) is not licensed by negation across clauses.

In summary, then, we find that the morphological operations that form the NEG antonyms in (1) have a rather stringent licensing requirement: they are only licensed by clausemate clausal negation. In Section 7, I will put forth a formal syntactic and semantic analysis of these NEG antonyms that captures this licensing behavior. But, before we come to that analysis, we will turn our attention to the puzzles regarding the NEG antonyms in (2)-(3).

## 6. The Structure and Meaning of Other NEG Antonyms in Tlingit

Thus far, our empirical discussion has focused upon the NEG antonyms in (1), where there is a clear three-way contrast between (i) the positive predicate, (ii) the negation of the positive predicate, and (iii) the NEG antonym. In this section, we will consider the NEG antonyms in (2)-(3), where one of those key contrasts is missing. For example, we have cases such as (2) – repeated in (57) – where the NEG antonym appears to lack a positive correlate, and we have cases as in (3) – repeated in (58) – where the putative NEG antonym appears to be surface identical to the negation of the positive predicate.

- (57) a. **tlél** chaa x'eití.  
**NEG** IRR.0CL.nice(?)  
*He's mean / grumpy / irritable.*
- b. \* chaa x'ayatee.  
 0CL.nice(?)
- (58) a. x'alitseen  
 1CL.expensive  
*It is expensive (dear).*
- b. **tlél** x'eiltseen  
**NEG** IRR.1CL.expensive  
*It is cheap (low value).*
- c. naaléi  
 0CL.far  
*It is far.*
- d. **tlél** unalé  
**NEG** IRR.0CL.far  
*It is near.*

- |    |  |    |  |
|----|--|----|--|
| e. | shigéek<br>shCL.stingy<br><i>He is stingy.</i>   | f. | tlél ushgéek.<br>NEG IRR.shCL.stingy<br><i>He is generous.</i> |
| g. | kayahéil'k<br>0CL.strong<br><i>He is strong.</i> | h. | tlél koohéil'k<br>NEG IRR.0CL.strong<br><i>He is weak.</i>     |

These structures raise two main empirical questions. First, can we show that the negation in these NEG antonyms is also VP-external clausal negation (24b), like the negation in the NEG antonyms of (1)? Secondly, can we show that the putative NEG antonyms in (58b, d, f, h) can truly have strong, antonymic meanings? That is, can we show that these structures don't just always express simply the propositional negation of the positive sentences? These questions are addressed in the subsections below.

### 6.1 The Morphosyntactic Status of Negation in the Other NEG Antonyms

The negation found in the NEG antonyms of (57)-(58) does not seem to differ morphosyntactically from the negation in the NEG antonyms of (1). That is, the negation in these forms does not behave like an incorporated negative prefix akin to English *un*. For example, we again find that the NEG antonyms in (57)-(58) must obligatorily appear in irrealis mode.

#### (59) Irrealis Mode Required for NEG Antonyms in (57)-(58)

- |    |   |  |
|----|---|--|
| a. | (i) <b>Tlél</b> chaa x'eití.<br>NEG IRR.0CL.nice(?)<br><i>He's mean / grumpy / irritable.</i> | (ii) * <b>Tlél</b> chaa x'ayatee.<br>NEG 0CL.nice(?) |
| b. | (i) <b>Tlél</b> unalé<br>NEG IRR.0CL.far<br><i>It is near.</i>                                | (ii) * <b>Tlél</b> naaléi<br>NEG 0CL.far             |

As mentioned in Section 4.1, we would not immediately expect such effects on inflectional morphology from an incorporated negative prefix akin to English *un-*. Furthermore, just as with the NEG antonyms of (1), the negation in (57)-(58) can be separated from the predicate by nominal arguments.

#### (60) Syntactic Separability of Negation in NEG Antonyms (57)-(58)

- |    |  |      |
|----|--|------|
| a. | (i) Tlél <b>aadóo sá</b> chaa x'eití<br>NEG <b>anybody</b> IRR.0CL.nice(?)<br><i>Everyone is mean (~ Not anybody is any nice.)</i> | (LA) |
|    | (ii) Hél <b>dóosh</b> chaa x'eití<br>NEG <b>cat</b> IRR.0CL.nice(?)<br><i>Cats are mean. (~ No cat is any nice)</i>                | (C)  |



not project the type d degree argument that is required by the degree modifier, resulting in a semantic type mismatch in sentences like those in (61).

With this in mind, let us observe the following striking fact: unlike the negated structures in (61), the putative NEG antonyms in (58) can indeed combine with degree modifiers. That is, unlike (61a,b,c), all the following are entirely well-formed and interpretable in Tlingit.

- (62) a. **A yáanáx** tlél unalí  
**3O.more.than** NEG IRR.0CL.far  
*It's closer than that.* (MD)
- b. **Kúnáx a yáanáx** tlél unalí  
**very 3O.more.than** NEG IRR.0CL.far  
*It's much closer than that.* (MD)
- c. **A yáanáx** áwé **kúnáx** tlél x'eiltseen yáat'aa  
**3O.more.than** FOC **very** NEG ICL.expensive this.one  
*This one is way cheaper than it.* (MD)
- d. Tléix'aa **yáanáx** áwé tlél ushgéek  
one.PART **more.than** FOC NEG IRR.shCL.stingy  
*He's more generous than one of them.* (GD)
- e. Héit'aa **yáanáx** áwé tlél ushgéik  
this.one more.than FOC NEG IRR.shCL.stingy  
*He's more generous than this one.* (LA)

The well-formedness of the sentences above indicates that the negated forms in (58b, d, f, h) do indeed project the degree argument required by the degree modifier *yáanáx* 'more than'. This would follow if those negated forms can – unlike the ones in (61) – indeed be interpreted as gradable predicates like English *cheap*, *near*, *generous*, and *weak*.

Furthermore, it is important to note in this context that Tlingit does not seem to permit the kind of 'metalinguistic comparison' structures that are (marginally) allowable in English. That is, some English speakers do (with sufficient context) permit sentences like those in (63), where a degree modifier seems to be combining with an expression that typically does not project a degree argument (Morzycki 2011).

(63) **Metalinguistic Comparison Structures in English**

- a. ?? This is more of a totem pole than that.  
b. ?? Dave is very not tall.  
c. ?? Dave is more not tall than John is.

One might wonder, then, whether the Tlingit sentences in (62) simply involve some kind of similar 'metalinguistic comparison' structure. However, such a view would of course fail to explain the reported contrast between the sentences in (62) and those in (61). It would also

wrongly predict the general possibility in Tlingit of metalinguistic comparison structures like the one in (64) (*cf.* (63a)).

- (64) \* A yáanáx kootéyaax sitee  
 3O.more.than totem.pole IMP.3S.is  
Judgment: Ill-formed; not meaningful; does not mean anything like (63a) in English

We find, then, that the ability of NEG antonyms in (58) to combine with degree modifiers provides evidence that they can be interpreted as gradable predicates, and are not always interpreted as just the propositional negation of a positive predicate.

## 6.2.2 Behavior in Downward Entailing Environments

Further evidence that the negated forms in (58) truly have strong, antonymic interpretations can be found by examining their behavior in downward entailing (DE) environments. Let us begin by noting that in a DE environment, like the underlined structure in (65) below, a weaker predicate (65a) will lead the sentence to have a stronger interpretation than a sentence with a stronger predicate in the same position (65b).

- (65) a. He went to all the towns that were not far.  
 b. He went to all the towns that were nearby.

To see this, note that in the scenario in (66) below, only the sentence in (65b) is true; sentence (65a) can only be interpreted as false in that scenario. It follows, then, that the meaning of sentence (65a) rules out the scenario in (66), while the meaning of (65b) does not.

- (66) 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.**

With this in mind, let us observe that Tlingit speakers report that the sentence in (67) below – which contains the NEG antonym in (58d) – can be interpreted as true/felicitous in scenario (66).

- (67) Ldakát yá **hél unalí** aandé k̄oowateen.  
 all DEM NEG IRR.0CL.far town.to PRV.3S.visit  
*He went to all the towns that are near.* (MD)  
Judgment: Does fit the scenario in (66).

The acceptability of sentence (67) in scenario (66) therefore suggests that the negated form in (58d), *tlél unalí*, can receive the strong antonymic interpretation of English *near*, and needn't always be interpreted as simply the negation of *far*.

A similar argument can be made regarding the interpretation of the NEG antonym in (58b), *tlél x'eiltseen* 'cheap'. Note that the exhaustive predicate *buy up* (in conjunction with a

definite determiner) in English creates a DE environment, and so the sentence in (68a) is stronger than that in (68b).

- (68) a. He bought up the hats that were not expensive.  
 b. He bought up the hats that were cheap.

Again, the relative strength of these statements can be observed from the fact that only sentence (68b) is true in the scenario under (69). Thus, the meaning of (68a) is inconsistent with (69), while the meaning of (68b) is not.

(69) 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.**

Let us then note that the Tlingit sentence in (70) below is reported to be acceptable in scenario (69). This suggests that (70) can have the meaning of English (68b), and so the negated form *tlél x'eiltseen* can indeed be interpreted as meaning 'cheap', and not simply 'not expensive'.

- (70) **Tlél x'eiltseeni** s'áaxw yax ayawsi.óo  
 NEG IRR.ICL.expensive.REL hat 3O.PRV.3S.buy.EXH  
*He bought up (all) the hats that were cheap.* (LA)  
Judgment: Does fit the scenario in (69).

In summary, then, Tlingit sentences where the NEG antonyms of (58) appear in DE environments seem to allow weak interpretations that could only be generated if the negated forms themselves received strong, antonymic interpretations. Combined with the fact that these negated forms can combine with degree modifiers (Section 6.2.1), it is fair to conclude that these structures truly can be interpreted as negative gradable predicates. In the following section, I will put forth an analysis of how these structures can end up receiving these strengthened antonymic interpretations.

## 7. A Formal Syntactic and Semantic Analysis of Tlingit NEG Antonyms

This section presents a formal syntactic and semantic analysis of the NEG antonyms of Tlingit. The analysis builds upon the analytic insights and tools developed by Heim (2006, 2008) and Büring (2007a,b) for positive and negative gradable adjectives in English. I begin in the following subsection by introducing certain key assumptions, via a treatment of the English antonym pairs *good/bad* and *lucky/unlucky*. I then show how, given certain parametric differences between English and Tlingit, this approach can be extended to Tlingit NEG antonyms like *tlél ushk'é* 'bad', which (as shown in Section 4) are formed from VP-external negation.



## 7.1 Some Basic Formal Assumptions: Positive and Negative Antonyms in English

Following Heim (2006, 2008) and Büring (2007a,b) (*inter multa alia*), I assume that (positive) gradable predicates denote downward monotonic relations between entities and degrees. For example, the denotations of such basic lexemes as *good* and *lucky* are as in (71) below.

### (71) Gradable Predicates are Relations Between Degrees and Entities

- a.     [[ *good* ]]     =     [  $\lambda d : \lambda x : \text{goodness}(x) \geq d$  ]  
 b.     [[ *lucky* ]]    =     [  $\lambda d : \lambda x : \text{luck}(x) \geq d$  ]

As stated in (71a), the denotation of *good* is a relation that holds between a degree *d* and an entity *x* if and only if *x*'s degree of goodness is greater than (or equal to) the degree *d*. Similarly, the relation denoted by *lucky* holds between *d* and *x* if and only if *x*'s degree of luck is greater than (or equal to) *d*.

Under this semantics, gradable predicates project a degree argument in addition to an entity argument. Thus, these predicates must combine with something that either saturates or quantifies over this degree argument. Consequently, in simple predication sentences like (72a) – where the only overt argument is the entity argument – we assume the presence of a phonologically null degree operator (Cresswell 1976; Bogal-Allbritten 2013). This operator, commonly dubbed *POS* (for ‘positive’), takes the Adjective Phrase as complement and projects a Degree Phrase, as shown in (72b) (Kennedy 1997).<sup>9</sup>

### (72) The *POS* Operator: Syntax

- a.     Sentence:             Dave is good.  
 b.     Syntax (First Pass): [TP Dave<sub>1</sub> [TP I [TP is [VP ... [DegP *POS* [AP *t*<sub>1</sub> good ] ... ]

Furthermore, as shown in (72b), I assume that the entity argument is base-generated within the maximal projection of the (adjectival) predicate, undergoing movement to its surface position. I also assume the syntax/semantics for movement initially proposed by Heim & Kratzer (1998), whereby moved phrases trigger the copying of an index onto their sisters, which is in turn interpreted as predicate abstraction.

Regarding the interpretation of this *POS* operator, I follow von Stechow (2009) and Heim (2006) in assuming the following denotation.

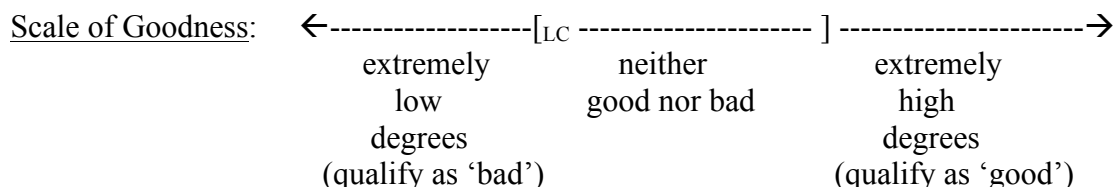
### (73) The *POS* Operator: Semantics     [[ *POS* ]]<sup>c</sup> = [ $\lambda P_{\langle dt \rangle} : L_c \subset P$ ]

<sup>9</sup> Although it is a fairly common assumption throughout the literature on gradable predicates, the existence of the *POS* operator remains controversial (Rett 2015). One oft-noted alternative to this assumption is to assume instead the existence of a special type-shifting rule, which can apply to predicates of type  $\langle d, t \rangle$  (Kennedy 2009).

As the reader can confirm, the analysis offered in this section does not crucially hinge upon the choice between these two options. For example, I will later propose in Section 7.2 that Tlingit differs from English in that Degree-heads like the *POS* operator can appear higher than clausal negation. If one were to instead assume a type-shifting operation, one could restate the proposed parametric difference in terms of the structures this type-shifting operation can apply to. On the other hand, such an alternate theory would fail to capture the parallel contrast between English and Tlingit with respect to whether the comparative operator can appear above sentential negation (see Section 7.2). I thank an anonymous reviewer for *NaLS* for raising this issue.

Under this semantics, within a context *c*, the denotation of *POS* is a degree quantifier (of type  $\langle dt, t \rangle$ ), which takes as argument a degree predicate *P*, and applies to *P* if and only if (the characteristic set of) *P* is a superset of the set of degrees  $L_C$ . This set  $L_C$  is determined by the context *c*, and is assumed to be the set of ‘non-extreme degrees’ for the predicate *P*. For example, for the predicate *good*,  $L_C$  would be those degrees which (within the context *c*) count as being ‘neither good nor bad’ (or ‘just so-so’). This is illustrated by the diagram below.

(74) **The Set  $L_C$  of Contextually Determined ‘Non-Extreme’ Degrees**



In a moment, we will see how this semantics for *POS* can combine with the lexical entries in (71) to yield accurate truth-conditions for sentences like (72a). Before we come to this, though, we will need to add one more ingredient to the syntax in (72b). Note that in (72b), the predicate *good* is not fully saturated within its maximal projection; although the trace of the subject *Dave* saturates the entity argument, nothing within the AP saturates the degree argument of *good*. If we assume that the arguments of a (lexical) predicate must all be saturated within its maximal projection, it follows that there must be something within the AP that saturates the degree argument. Of course, the *POS* operator itself could in principle do this job, but it must head a separate functional projection of the AP (Kennedy 1997). Consequently, to remedy this issue, I will assume the existence of a phonologically null ‘degree relative’ operator, *DEG-REL*.

Semantically, the *DEG-REL* operator simply denotes an identity function on degree predicates, as shown in (75a).<sup>10</sup> Syntactically, *DEG-REL* is base-generated within the maximal projection of the gradable predicate, saturating its degree argument. Given its semantic type  $\langle dt, dt \rangle$ , it cannot be interpreted in this position, and so must undergo movement to the left-edge of the AP, as shown in (75b) below, leaving behind a trace of type *d*.

(75) **The Syntax and Semantics of *DEG-REL***

- a. Semantics of *DEG-REL*:     $[[ \text{DEG-REL} ]]$  =     $[ \lambda P_{\langle dt \rangle} : P ]$
- b. Syntax of *DEG-REL*:
- (i) *Sentence*:    Dave is good.
- (ii) *Syntax*:     $[_{TP} \text{Dave}_1 [_{TP} 1 [_{VP} \text{is} [_{VP} \dots$   
 $[_{DegP} POS [_{AP} DEG-REL_2 [_{AP} 2 [_{AP} t_1 t_2 \text{good} ] \dots ]$

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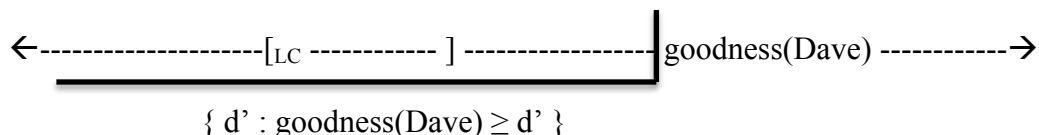
<sup>10</sup> It therefore has a meaning analogous to that proposed for relative clause operators in such works as Heim & Kratzer 1998, where they are assumed to denote identity functions on entity predicates.

Given the semantic entries above – as well as the assumed semantics for movement structures (Heim & Kratzer 1998) – an LF structure like (75bii) will be computed to have the truth-conditions in (76a) below.

(76) **Predicated Semantics for Predication Sentences with Positive Gradable Predicates**

a.  $L_c \subset \{ d' : \text{goodness}(\text{Dave}) \geq d' \}$

b. Diagram Illustrating Truth-Conditions



As illustrated in (76b), according to the predicted truth-conditions in (76a), sentence (72a) states that the set of degrees falling below Dave’s degree of goodness contains all the ‘non-extreme’ degrees in  $L_C$ . Of course, as illustrated in (76b), this could only be the case if Dave’s degree of goodness is *higher* than all the ‘non extreme’ degrees in  $L_C$ . By assumption then, this could only hold if Dave’s degree of goodness counts as being ‘extremely high’, and so is among those degrees qualifying as ‘good’.

With these ideas in place, let us now consider the treatment of negative gradable predicates like *unlucky* and *bad*, beginning with the former. To begin, a simple predication sentence containing the positive predicate *lucky* (77a) will have the structure in (77b) and therefore the truth-conditions in (77c), perfectly analogous with the case of *good* in (75)-(76).

(77) **Syntax and Semantics of Predication Sentences with Positive Predicate *Lucky***

a. Sentence: Dave is lucky.

b. Syntax:  $[_{TP} \text{Dave}_1 [_{TP} 1 [_{TP} \text{is} [_{VP} \dots [_{DegP} POS [_{AP} DEG-REL_2 [_{AP} 2 [_{AP} t_1 t_2 \text{lucky} ] \dots ] ] ] ] ] ] ] ]$

c. Predicted Truth-Conditions:  $L_c \subset \{ d' : \text{luck}(\text{Dave}) \geq d' \}$

- The set of degrees of ‘luck’ falling below Dave’s contains all the non-extreme degrees in  $L_C$
- Therefore, Dave’s degree of ‘luck’ is above  $L_C$ , and so qualifies as ‘extremely high’, and so qualifies as ‘lucky’.

Adapting ideas from Heim (2006, 2008) and Büring (2007a,b), I assume that (incorporated) negative prefixes like English *un-* directly take as argument a gradable predicate and return its complement. That is, they are assumed to have the denotation in (78a) below.

(78) **Denotation of (Incorporated) Negative Prefix**

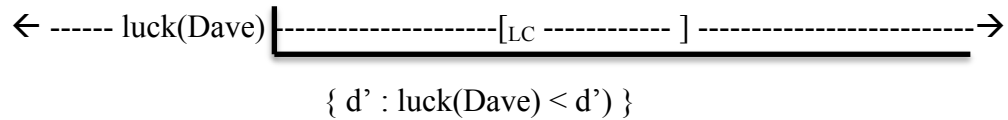
a.  $[[ \text{un-} / \text{in-} / \text{non-} ]] = [ \lambda P_{\langle \text{det} \rangle} : \lambda d : \lambda x : \neg P(d)(x) ]$

$$\begin{aligned}
\text{b. } \llbracket \text{unlucky} \rrbracket &= [ \lambda d : \lambda x : \neg \llbracket \text{lucky} \rrbracket (d)(x) ] \\
&= [ \lambda d : \lambda x : \neg [ \text{luck}(x) \geq d ] ] \\
&= [ \lambda d : \lambda x : \text{luck}(x) < d ]
\end{aligned}$$

Consequently, the negative antonym *unlucky* will receive the denotation in (78b). That is, it will denote the relation that holds between a degree *d* and an entity *x* if and only if the denotation of *lucky* does *not* hold between *d* and *x*. Given the semantics for *lucky* in (71b), it follows that  $\llbracket \text{unlucky} \rrbracket$  holds of *d* and *x* if and only if *x*'s degree of luck falls *below* the degree *d*. Finally, under the syntactic/semantic assumptions in (73)-(75), it follows that the sentence in (79a) containing *unlucky* will have the syntax in (79b) and thus the truth-conditions in (79c).

(79) **Syntax and Semantics of Predication Sentences with Negative Predicate *Unlucky***

- a. Sentence: Dave is unlucky.
- b. Syntax: [TP Dave<sub>1</sub> [TP 1 [TP is [VP ...  
[DegP POS [AP DEG-REL<sub>2</sub> [AP 2 [AP t<sub>1</sub> t<sub>2</sub> unlucky ] ... ]
- c. Predicted Truth-Conditions:  $L_c \subset \{ d' : \text{luck}(\text{Dave}) < d' \}$
- d. Diagram Illustrating Predicted Truth-Conditions:



According to (79c), sentence (79a) asserts that the degrees of luck falling *above* Dave's degree of luck contain the non-extreme degrees in  $L_c$ . As shown in (79d), this could only hold if Dave's degree of luck falls *below* all those non-extreme degrees. By assumption then, this could only hold if Dave's degree of luck counts as being 'extremely low', and so is among those degrees qualifying as 'unlucky'.

Finally, let us contrast the semantics predicted for (79a) *Dave is unlucky* with that predicted for (80a) below, *Dave is not lucky*. Sentence (80a) is assumed to have the syntax in (80b), whereby the negation is VP-external, and so scopes above the *POS* operator.

(80) **Syntax and Semantics of Negated Positive Sentences**

- a. Sentence: Dave is not lucky.
- b. Syntax: [TP Dave<sub>1</sub> [TP 1 [TP is [NegP not [VP ...  
[DegP POS [AP DEG-REL<sub>2</sub> [AP 2 [AP t<sub>1</sub> t<sub>2</sub> lucky ] ... ]
- c. Predicted Truth-Conditions:  $\neg [ L_c \subset \{ d' : \text{luck}(\text{Dave}) \geq d' \} ]$

As shown in (80c), sentence (80a) is predicted to assert that the degrees of luck that fall below Dave's *do not* contain the 'non-extreme' degrees in  $L_c$ . This, of course, simply means that







semantically equivalent to English gradable adjectives – are in fact verbs. Consequently, if (85a) were to hold in Tlingit, the language would be unable to use any of its gradable predicates. From this fact alone, then, it can be fairly concluded that Deg-heads in Tlingit must have a broader distribution than they do in English.

Note, however, that in (86b) the root *k'éi* ‘good’ is not yet fully saturated within its maximal projection; again, there must be something within the VP that satisfies the root’s degree argument. With this in mind, I introduce here the second main ingredient to our analysis of Tlingit NEG antonyms, the operator *NEG-REL*.

(87) **Second Parametric Difference Between English and Tlingit: Existence of *NEG-REL***

- a. Semantics of *NEG-REL*:      [[ *NEG-REL* ]] =      [  $\lambda P_{\langle dt \rangle} : P$  ]
- b. Syntax of *NEG-REL* vs. Syntax of *DEG-REL*:
  - *NEG-REL* bears the feature [NEG]; *DEG-REL* lacks this feature.
  - Expressions with the feature [NEG] must move into the specifier of a Negation Phrase (NegP). Expressions without this feature *cannot* move into Spec-NegP.
- c. Morphophonology of *NEG-REL*:  
Adjacency of a predicate to *NEG-REL* triggers certain (lexically stipulated) morphophonological processes.

As stated in (87a), there is no semantic difference between the operator *NEG-REL* and the operator *DEG-REL* in (75); both denote identity functions on degree predicates. *NEG-REL*, however, has certain special syntactic and morphological properties. Syntactically, *NEG-REL* can only be licensed in Spec-NegP. Therefore, if *NEG-REL* is generated in the degree-argument position of a gradable predicate, it must undergo movement to NegP. Furthermore, *NEG-REL* is the only operator that can undergo such movement. This is encoded in (87b) via the hypothesis that *DEG-REL* lacks the feature [NEG], and so cannot undergo movement to the specifier of NegP.<sup>15</sup> Finally, I assume that the special morphological operations found in the NEG antonyms of (1) are a reflex of the presence of *NEG-REL*. That is, these processes are triggered precisely when *NEG-REL* is adjacent to the predicate in question.

With these additional ingredients in place, I propose that the structure of NEG antonym sentences like (86a) is that in (88a). Therefore, such sentences are predicted to have the truth-conditions in (88b).

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<sup>15</sup> Note that there are therefore two reasons why the *DEG-REL* operator of English cannot appear within the specifier of NegP. Not only does *DEG-REL* lack the [NEG] feature that would allow such movement, recall that in English, Degree heads never take NegP within their scope (85a). Consequently, movement of *DEG-REL* to Spec-NegP in English would result in an uninterpretable structure.



(88) **Syntax and Semantics of Predication Sentences with NEG Antonyms**

- a. Syntax of (86a):      [TP Jáan<sub>1</sub> [TP 1 [TP [DegP POS  
[NegP NEG-REL<sub>2</sub> [NegP 2 [NegP tlél [VP t<sub>1</sub> t<sub>2</sub> ushk'é ] ... ]
- b. Predicted Truth-Conditions:       $L_c \subset \{ d' : \text{goodness}(\text{John}) < d' \}$

The predicted truth-conditions in (88b) are, of course, exactly those predicted in (82b) for the English negative predication sentence *Dave is bad*. Thus, this system indeed correctly predicts that (84b) has a stronger (antonymic) reading than (84c). Again, this result is obtained by the assumption that in (84b), the degree operator *POS* scopes above (clausal) negation, while in (84c), it scopes below negation.

Let us also observe that we correctly predict that (84c) cannot receive the stronger ‘antonymic’ interpretation of (84b). Again, to receive such an interpretation, the operator *POS* must scope above negation. Consequently, a degree relative operator must move to the Specifier of that negation, to create the (syntactically derived)  $\langle d, t \rangle$  degree predicate that *POS* takes as argument. However, by assumption (87b), the only degree relative operator that can undergo such movement is *NEG-REL*. Finally, by assumption (87c), adjacency of *NEG-REL* to the root *k'éi* ‘good’ will trigger the shifting of the classifier to *sh-*. Therefore, the form that surfaces will be the one in (84b), and not the one in (84c).<sup>16</sup>

Similarly, our system is able to capture the semantic contrast observed earlier for (38a,b), repeated below.

- (89) a. **Tlél** daa sá ushk'é      b. **Tlél** daa sá uk'é  
**NEG** anything IRR.shCL.good      **NEG** anything IRR.0CL.good  
*Everything is bad.*      *Nothing is good.*

In sentence (89a), the presence of classifier shift entails that *NEG-REL* must have been generated adjacent to the predicate. Given the key assumption in (87b), then, this *NEG-REL* must have undergone movement to SpecNegP. This movement creates a syntactically derived type- $\langle d, t \rangle$  degree predicate. Consequently, in order for (89a) to be of propositional type (type t), we must assume that the *POS* operator has scope above the NegP. Putting all this together, we conclude that (89a) has the LF structure in (90a), and therefore the truth-conditions in (90b).

<sup>16</sup> Likewise, we correctly predict that (84b) cannot have the weaker ‘propositional negation’ reading of (84c). To receive that interpretation, *POS* must be in the scope of negation, and so the degree relative operator must also be in the scope of negation. Consequently, that degree relative operator couldn’t be *NEG-REL*, which must move to SpecNegP. Therefore, a sentence receiving such an interpretation could never surface with the *sh-*classifier shift triggered by *NEG-REL*.

(90) **Syntax and Semantics of (89a)**

- a. Syntax:<sup>17, 18</sup>  
 $[_{\text{DegP}} \text{POS} [_{\text{NegP}} \text{NEG-REL}_2 [_{\text{NegP}} 2 [_{\text{NegP}} \text{tlél} [_{\text{VP}} \text{daa } \text{sá } t_2 \text{ ushk'é } ] \dots ] ] ] ] ]$
- b. Predicted Truth-Conditions:  $L_c \subset \{ d' : \neg \exists x (\text{goodness}(x) \geq d') \}$

The truth-conditions in (90b) state that the set of non-extreme degrees  $L_c$  is contained within the set of degrees  $d'$  such that nothing has a degree of goodness above  $d'$ . That is, the set of degrees that are above *everything's* degree of goodness contains the non-extreme degrees  $L_c$ . Of course, this could only hold if everything's degree of goodness falls below  $L_c$ , and so everything has an 'extremely low' degree of goodness, therefore qualifying as bad. Thus, we correctly predict that (89a) is true if and only if everything is bad. Therefore, we correctly predict the judgments in (38), that (89a) is false when some items of food are merely 'so-so' (and not really bad), and that (89a) is true when the entirety of a beach has become completely spoiled.

For sentence (89b), however, the absence of any classifier shift entails that *NEG-REL* was not generated adjacent to the predicate. Consequently, the degree relative operator in (89b) must be *DEG-REL*, which is unable to move to Spec-NegP. It follows that *DEG-REL* – and therefore *POS* as well – is within the scope of negation. Thus, (89b) must have the LF structure in (91a) and so the truth-conditions in (91b).

(91) **Syntax and Semantics of (89b)**

- a. Syntax:<sup>19</sup>  $[_{\text{NegP}} \text{tlél} [ \text{daa } \text{sá}_1 [ 1$   
 $[_{\text{DegP}} \text{POS} [_{\text{VP}} \text{DEG-REL}_2 [_{\text{VP}} 2 [_{\text{VP}} t_1 t_2 \text{ uk'é } ] \dots ] ] ] ] ] ]$
- b. Predicted Truth-Conditions:  $\neg \exists x [ L_c \subset \{ d' : (\text{goodness}(x) \geq d') \} ]$

The truth-conditions in (91b) state that there is no entity  $x$  such that  $x$ 's degree of goodness is above the 'non-extreme' degrees in  $L_c$ . That is, there is nothing that qualifies as 'good'. Thus, we correctly predict that (89b) will be true in a scenario where some items of food are merely 'so-so', just as long as no item of food is really 'good'. Furthermore, we correctly predict that (89b) will be anomalous in a context where the entirety of a beach has been spoiled. Although (89b) would be *true* in such a context, we've already seen that (89a) would also be true in such a context. Since (89a) is logically stronger than (89b), it follows that using (89b) in such a context

<sup>17</sup> Because negation is assumed in Tlingit to occupy a position below TP, the linear position of the subject in (89a) entails that it occupies a lower position in the clause, which I assume here to be within VP.

<sup>18</sup> The structure in (90a) clearly violates the following condition, often referred to as 'Kennedy's Generalization' (Kennedy 1997, Heim 2001).

(i) If the scope of a quantificational DP contains the trace of a DegP, it also contains the DegP itself.

I will discuss in Section 8.1 below the broader consequences this might have for our understanding of intervention effects in DegP-movement (Heim 2001, Beck 2012).

<sup>19</sup> I assume that as in English, NPIs like *daa sá* 'anything' in Tlingit must be in the immediate scope of their licensing operator. Therefore, *POS* must scope below *daa sá* in (89b), and so I assume in (91a) that *daa sá* has undergone movement to a position above *POS* but below negation.





resulting truth-conditions are those in (96c), which simply assert that John’s goodness is *not* higher than Sue’s. Consequently, such sentences can be understood as true in scenarios where John and Sue are of equal goodness (20).

In this way, our proposed syntactic/semantic analysis is able to capture the Scope/Word-Order generalization in (7)/(92). Crucially, all the LF structures proposed above accord with the surface word-order of the Tlingit sentences. Consequently, we find that in this system, operators which appear to the left semantically outscope operators to the right. Thus the generalization in (7)/(92) is a simple result of the scope of the operators in question. That is, when NEG antonyms are modified by degree operators, the operator precedes negation precisely because it outscoops that negation (92a). Similarly, the negation of a degree modification places the negation before the modifier precisely because it outscoops that modifier (92b).

Importantly, these results together correctly predict the ill-formedness of (97) below.

(97) **No Comparative Phrase Before Negation of a Positive Predicate**

\* A yáanáx            tlél    uk’é  
 3O.more.than        NEG   IRR.0CL.good        (cf. (8b), (13))

The position of *yáanáx* in (97) entails that it must take as argument the denotation of the phrase *tlél uk’é*. Given the semantics in (93), the phrase the phrase *tlél uk’é* must thus denote a degree predicate. The only way for such a phrase to denote a degree predicate is if a degree relative operator – either *DEG-REL* or *NEG-REL* – has moved to its left periphery. However, the degree relative operator in (97) couldn’t be *DEG-REL*, since that operator is not able to move to the left periphery of a NegP. It also couldn’t be *NEG-REL*, since the root *k’ei* ‘good’ has not undergone the *sh*-classifier shift triggered by *NEG-REL*. Consequently, there is no degree relative operator that could be located in the left periphery of *tlél uk’é*, and so the sentence is not interpretable. For similar reasons, our system correctly predicts the ill-formedness of the following.

(98) **Comparative Phrase Cannot Intervene in a NEG Antonym**

\* Tlél    a yáanáx        ushk’é  
 NEG   3O.more.than IRR.shCL.good        (cf. (8b), (13))

Again, given the position of *yáanáx* in (98), it must take as argument the denotation of the phrase *ushk’é*. Again, the lexical entry in (93) therefore demands that the phrase *ushk’é* denotes a degree predicate, and so there must be a degree relative operator in its left periphery. This operator couldn’t be *DEG-REL*, since *DEG-REL* wouldn’t be able to trigger the *sh*-classifier shift found in (98). This operator also couldn’t be *NEG-REL*, since *NEG-REL* must move to the Specifier of NegP, and cannot appear at a lower position. Thus, there is no degree relative operator that could be in the left periphery of *ushk’é*, and so (98) is not interpretable.

**7.2.1 The Semantic Uniformity of Negation**

A notable feature of the analysis offered above for Tlingit NEG antonyms is that the negation in such constructions has the same proposition-level semantics (type  $\langle t, t \rangle$ ) as it does in cases of regular clausal negation. This is advantageous, as it was shown throughout Section 4 that the

negation in a Tlingit NEG antonym is syntactically identical to regular, VP-external clausal negation. Given this syntactic identity, it would be preferable to view the negation in a NEG antonym as also being semantically identical to clausal negation.

On these grounds, we can prefer the account in Section 7.2 over two other imaginable alternatives. The first would treat the negation of a NEG antonym as being a special kind of degree modifier or degree operator, perhaps akin to the type-*<dt,dt>* negative prefix *un-* in English (78a). That is, one could imagine an account where the negation in a NEG antonym has the same semantics as English *un-* in (78a), and thereby directly combines with a gradable predicate, without the intercession of a degree-relativizing operator like *NEG-REL* (78b).<sup>20</sup> Such an account, however, would postulate an otherwise unwarranted lexical ambiguity in the VP-external clausal negation of Tlingit. Furthermore, it is unclear how such an account would apply to cases like those in Section 4.2, where phrasal material intervenes between the negation and the remainder of the NEG antonym.<sup>21</sup>

Another imaginable approach to Tlingit NEG antonyms – suggested by an anonymous reviewer for *NaLS* – would view them as being structurally akin to an intriguingly similar antonymy construction in Wolof (Niger-Congo; Senegal, Gambia, Mauritania). As discussed and documented by Baglini (2015), negative gradable predicates in Wolof can be formed from the combination of their positive antonym and a negative possessive verb, translatable as ‘lack’. The following illustrates.

(99) **Negative Gradable Predicates Formed from ‘Lack’ in Wolof (Baglini 2015)**

- |    |   |          |    |   |          |
|----|---|----------|----|---|----------|
| a. | Amna                                    | doole.   | b. | Ñákkna                                  | doole.   |
|    | has.3sgS                                | strength |    | lack.3sgS                               | strength |
|    | <i>He is strong (= He has strength)</i> |          |    | <i>He is weak (= He lacks strength)</i> |          |

As noted by the reviewer, the form of these predication structures is quite in line with recent proposals by Francez & Koontz-Garboden (2010, 2017), whereby certain languages express gradable predication through the combination of a dimensional (‘concept’) root and a possessive predicate. One might rightly wonder, then, how close the Tlingit NEG antonyms are in structure to forms like (99b) in Wolof. Though there are clear surface differences, one might consider whether the negation in the Tlingit NEG antonym is actually the morphological realization of a negative possessive predicate, like Wolof *ñákkna* ‘lack’ in (99b). Of course, for reasons of space, I cannot here present or evaluate a fully fleshed-out version of this general line of approach. Nevertheless, we can still observe that such an account would again posit a lexical ambiguity in Tlingit clausal negation. Furthermore, it also again remains unclear how such an account would handle cases like those in Section 4.2, where an indefinite subject scopes below the negation of the NEG antonym.

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<sup>20</sup> Another possibility, suggested by an anonymous reviewer for *NaLS*, is that the negation of a NEG antonym could perhaps have a semantics akin to the special ‘degree use’ of English *no* in sentences like the following, as analyzed by Alrenga & Kennedy (2014).

(i) Dave is no good. (= Dave is bad.)

However, as that reviewer notes, besides postulating a lexical ambiguity in Tlingit negation, an account along these lines would wrongly predict that Tlingit NEG-antonyms are not gradable.

(ii) \* Dave is more no good than John.

<sup>21</sup> I thank an anonymous reviewer for *NaLS* for raising this issue.

## 8. Further Challenges and Extensions

### 8.1 Intervention Effects in Degree Movement

A crucial ingredient in our analysis of Tlingit NEG antonyms is the operator *NEG-REL*, as well as the assumption that it must move over negation and into Spec-NegP. This crucial assumption, however, seems to run afoul of some well-known constraints on the movement of degree operators. Beginning with the work of Kennedy (1997), it has been argued that movement of degree operators cannot cross logical/quantificational items. Heim (2001) famously refers to this generalization as “Kennedy’s Generalization”, and states it as follows.

(100) **Kennedy’s Generalization (Kennedy 1997, Heim 2001)**

If the scope of a quantificational DP contains the trace of a DegP, it also contains that DegP itself.

Importantly, under our proposed account, several of our key Tlingit data appear to violate this condition. Consider again the sentence in (89a) under its analysis in (90), repeated below.

(101) **Indefinites Intervening in Tlingit NEG Antonyms**

- a. Sentence:      **Tlél**    daa sá    ushk’é  
                          NEG anything IRR.shCL.good  
                          *Everything is bad*
- b. Syntax:    [DegP POS [NegP *NEG-REL*<sub>2</sub> [NegP 2 [NegP *tlél* [VP *daa sá t<sub>2</sub> ushk’é* ] ... ]
- c. Predicted Truth-Conditions:       $L_c \subset \{ d' : \neg \exists x (\text{goodness}(x) \geq d') \}$

Under the syntactic analysis in (101b), the indefinite *daa sá* ‘anything’ scopes over the trace of *NEG-REL*, but does not scope over *NEG-REL* itself, entailing a violation of condition (100).

However, as noted by an anonymous reviewer for *NaLS*, the possibility of the structure in (101b) may not necessarily require a revision of the condition in (100). The reviewer notes that it is generally possible for quantificational subjects to appear inside the *than*-clauses of English, as in (102a) below.<sup>22</sup> Under standard assumptions about the syntax/semantics of English *than*-clauses, it would follow that *DEG-REL* is able to move over such quantificational DPs (102b). Consequently, the reviewer notes that degree relative operators like *DEG-REL* and *NEG-REL* should (at least in English) be viewed as generally immune to the condition in (100).

(102) **Movement of *DEG-REL* Over Quantificational Subjects in English**

- a. Sentence:                                    Dave is taller than **every boy** is.
- b. Structure of *Than*-Clause:    [ *than* [ *DEG-REL*<sub>2</sub> [ 2 [ every boy is *t<sub>2</sub>* ~~that~~ ] ... ]

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<sup>22</sup> There are, though, well-studied and complex constraints on the appearance of quantificational subjects in such clauses (Schwarzschild & Wilkinson 2002, Alrenga & Kennedy 2014). On the other hand, it also appears that those constraints are of a different nature than the ones covered by the generalization in (100) (Beck 2012).





conditions are consistent with someone being taller than Bill. Suppose that Jen is 60”, Sue is 65”, Bill is 72”, and Mary is 78”. It follows that  $\{ d' : \forall x. \text{height}(x) \geq d' \}$  will be all the heights lower than 60”, since Jen is the shortest individual. This set is certainly a subset of the heights lower than Bill’s, since he is 72”. Thus, the truth-conditions in (104b) are consistent with someone being taller than Bill, contrary to the judgments reported for sentence (103a).

We find, then, that while degree operators in Tlingit are able to move over indefinites (101), they are not able to move over universals (103)-(104). Thus, Kennedy’s Generalization (100) seems in Tlingit to be sensitive to the quantificational force of the DP; although universal DPs are ‘interveners’ for DegP movement in Tlingit, indefinites are not. Interestingly, this is quite similar to the way in which quantificational force affects whether a DP counts as an ‘intervener’ for *wh*-movement. As has long been observed, strong quantifiers like universals trigger intervention effects for covert *wh*-movement, while weak quantifiers like indefinites do not (Beck 1996, 2006, 2012; Pesetsky 2000). However, further complicating the picture here is that indefinites in English *do* behave as interveners for DegP-movement, as the broad statement in (100) suggests (Beck 2012).

In summary, given the facts in (101) and (103), the analysis from Section 7.2 would entail that (i) unlike in English, movement of degree-relative operators in Tlingit (*DEG/NEG-REL*) is sensitive to the intervention condition in (100), and (ii) unlike in English Deg-movement – but like English *wh*-movement – the condition in (100) is sensitive to the quantificational force of the DP in Tlingit. We must leave to future work a more in-depth study of intervention effects in Tlingit Deg-movement, and exactly why and how they differ from such effects in English. Nevertheless, the facts observed here – puzzling as they are – can be attributed to an identifiable point of cross-linguistic variation, one that coheres with broader patterns of variation in intervention effects across languages.<sup>24</sup>

## 8.2 Extending the Analysis to the Other NEG Antonyms of Tlingit

Thus far, we’ve seen how our proposed system can capture the alternations in (1), where (non-productive) morphological operations serve to distinguish the NEG antonym. What, though, of the NEG antonyms in (2)-(3), where these operations are not observed? Let us begin with cases like (2), repeated below, lexemes that cannot appear without negation.

- (105) a. **Tlél** chaa  $\bar{x}$ 'eití.                      b. \* Chaa  $\bar{x}$ 'ayatee.  
           **NEG** IRR.0CL.nice(?)                      0CL.nice(?)  
           *He's mean / grumpy / irritable.*

Is there a way in which the proposals from Section 7.2 might account for the contrast between (105a) and (105b)? Note that according to those proposals, the Tlingit root *k'éi* ‘good’ is able to syntactically combine with both *DEG-REL* and *NEG-REL*. Suppose, though, that lexemes like *chaa  $\bar{x}$ 'a-tee* were only able to combine with *NEG-REL*. That is, let us imagine that these lexemes specially c-select for *NEG-REL*. Since *NEG-REL* is only licensed in Spec-NegP, it would of course follow that negation must be present in any clause headed by them. Thus, the impossibility of (105b) might be due to the fact that *NEG-REL* – which is required by *chaa  $\bar{x}$ 'a-tee* – goes unlicensed in the absence of negation.

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<sup>24</sup> I thank two anonymous reviewers for *NaLS* for raising the questions and concerns discussed in this section.





(112) **Cross-Polar Nomalies in English (Büring 2007a,b)**

- a. \* This book is **longer** [ than it is **narrow** ]
- b. This book is **narrower** [ than it is **long** ]

Note, for example, that in (112a), a negative predicate (*narrow*) occupies the subordinate clause while a positive predicate (*long*) occupies the main clause. This sentence strikes speakers as ill-formed, and is much worse than the sentence in (112b), where the negative predicate occupies the main clause, while the positive predicate occupies the subordinate clause.

The reason why the judgments in (112) motivate the decompositional analysis in (6)/(81) is rather complex, and I must refer the reader to the works cited above for the full explanation. However, the overall reasoning can be summarized as follows. First, as noted by Büring (2007a), the main puzzle here is why the sentence in (112b) is acceptable at all. Because the degrees contributed by the main predicate are ‘negative’, while those contributed by the subordinate predicate are ‘positive’, they should be incommensurable, and so the sentence in (112b) should be just as anomalous as that in (112a). However, both Büring (2007a) and Heim (2008) observe that if negative predicates like *narrow* are morpho-syntactically derived from positive ones like *wide*, then it is possible for sentence (112b) to have an underlying syntactic structure identical to the sentence in (113) below.

(113) This book is **less wide** [ than it is long ]

Again, the details of exactly how (112b) and (113) can have parallel structures are complex, and must be set aside for the present discussion.<sup>26</sup> What’s important to note, though, is that in sentence (113), both the main clause and the subordinate clause contain positive predicates, and so the degrees being compared are both ‘positive’, and thus commensurable. Finally, since it is assumed that only negative predicates are morpho-syntactically derived – that positive predicates are (of course) not also derived from negative ones by a similar process – it follows that the sentence in (112a) cannot receive a structure whereby both the main clause and the subordinate clause contribute commensurable ‘negative degrees’. Thus, under the general account in (6)/(81), sentence (112b) is interpretable while (112a) is not.

For this reason, the phenomenon of Cross-Polar Nomalies has been taken as evidence that the negative predicates of a given language do not have the nature in (109); they are not separately stipulated in the lexicon as having an antonymous negative semantics. With this in mind, we should examine whether Cross-Polar Nomalies hold in the Tlingit language as well. To examine this, however, I will first have to introduce the general form of subcomparative constructions in Tlingit. Such structures are illustrated in (114) below; note that in both sentences the matrix and embedded predicates are of positive polarity.

(114) **Subcomparatives in Tlingit**

- a. **Aadé** kakwliwóox’u yé yáanáx koowáat’  
3O.to ICL.wide.REL way more.than OCL.long  
*It’s longer than it is wide. (It’s longer than how wide it is.)* (GD)

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<sup>26</sup> Furthermore, it should be noted that Büring (2007a,b) and Heim (2008) disagree over those details, and offer rather different accounts of exactly how (112b) relates to (113).

- b. **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.)* (GD)

In the sentences above, the comparative (subordinate) clause is a relative clause modifying the light noun *yé* 'manner, way, place'. As in all relative clauses modifying *yé*, the comparative clause here contains the phrase *aadé* 'towards it'. In this environment, *aadé* seems to be semantically vacuous; it may simply function here as a kind of resumptive element, resuming the trace of a non-DP relative operator (James Crippen, p.c.). The light noun *yé* is the noun generally used for 'lightly-headed relatives' that denote manners, degrees, or locations (115a). The Tlingit language does not possess 'headless relatives'; lightly-headed relatives are the closest correlate in Tlingit to English headless relatives like *how long it is*, *how she dances*, or *what you cooked*. Sentence (115b) further illustrates; the light noun *át* 'thing' is the head used for lightly-headed relatives denoting entities.

(115) **Lightly-Headed Relatives (Rather than Headless Relatives) in Tlingit**

- a. A<sub>x</sub> tuwóo sigóo **aadé** al'eixi \*(yé)  
 1sgS.like 3O.to 0CL.dance.REL way  
*I like how he is dancing.* (GD)
- b. Kúnáx ax tuwóo sigóo wé yisi.eeyi \*(át)  
 very 1sgS.like DEM 2sgS.cooked.REL thing  
*I like what you cooked.* (SE)

Despite their surface differences from English subcomparatives (112b)-(113), it is plausible to view the Tlingit sentences in (114) as having a comparable syntax and semantics. As just noted, the presence of the resumptive phrase *aadé* and the light head *yé* indicates that the subordinate comparative clauses in (114) involve relativization from the degree-argument of the subordinate gradable predicate. Thus, such sentences have the basic structure in (116a) below.

(116) **Syntax and Semantics of the Tlingit Subcomparatives in (114)**

- a. Syntactic Structure of (114a):  
 $[_{TP} [_{VP} [_{PP} [_{NP} [_{TP} [_{VP} DEG-REL_2 [ 2 [_{VP} pro_1 t_2 kakwliwóox'u ] ] ] ] yé ] yáanáx ]$   
 $[_{VP} DEG-REL_3 [_{VP} 3 [_{VP} pro_1 t_3 koowáat' ] \dots ]$
- b. Lexical Entry for Light Noun Yé:  $[[ yé ]]$  =  $[ \lambda P_{\langle dt \rangle} : P ]$
- c. Predicated Truth-Conditions of (114a)  
 $\{ d' : width(x_1) \geq d' \} \subset \{ d' : length(x_1) \geq d' \}$

Under the syntax in (116a), a degree relative formed by movement of *DEG-REL* from the predicate *kakwliwóox'* 'wide' modifies the light noun *yé*, which is in turn complement to the comparative operator *yáanáx* 'more than'. If we assume that the light noun *yé* is semantically

vacuous (116b), then our system from Section 7.2 predicts that (114a) will have the truth-conditions in (116c), which state that the length of the subject ( $x_1$ ) is greater than its width.

Beyond the mere plausibility of the analysis in (116), one should also note that the putative Tlingit subcomparatives in (114) are rather different in form from the ‘false subcomparatives’ of Japanese and Mandarin, discussed by Kennedy (2009). As shown in (117a) below, the distinct Japanese and Mandarin construction involves a nominalized possessive structure not found in either the English or Tlingit subcomparative construction.

(117) **False Subcomparatives in Japanese vs. True Subcomparatives in Navajo**

- a. Japanese ‘False Subcomparatives’ (Kennedy 2009)  
 Kono taka-no taka-sa-wa ano doa-no haba yori ooki.  
 this shelf-GEN height-NOM-TOP that door-GEN width more.than great  
*This shelf’s height is greater than the door’s width.*
- b. True Subcomparatives in Navajo (Bogal-Allbritten 2013)  
 Díí naaltsoos [ ’eii ’áníltéél=**ígíí** ] yiláah ] ’ánílnééz.  
 this book that 3sgS.wide=**REL** more.than 3sgS.long  
*This book is longer than that one is wide.*

On the other hand, the putative Tlingit subcomparatives in (114) are strikingly similar to the (true) subcomparative construction of the related language Navajo, as documented by Bogal-Allbritten (2013). As shown in (117b) above, the key difference between the two is that the comparative operator in Navajo (*yiláah*) directly takes a relative clause as complement, while the Tlingit comparative operator (*yáanáx*) in (114) combines with a lightly-headed relative, headed by the light noun *yé*. Again, though, this simply reflects the more basic, independent fact that Tlingit does not exhibit headless relatives, while Navajo does allow for them.<sup>27</sup>

For all these reasons, it is fair to view Tlingit structures like those in (114) as comparable to subcomparatives in languages like English.<sup>28</sup> With this in mind, let us now observe the following reported contrast.

(118) **Cross-Polar Nomalies in Tlingit**

- a. \* Aadé **klisáak’u** 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.)* (SE)

<sup>27</sup> Finally, it should also be noted that Tlingit does not generally allow for a ‘metalinguistic comparison’ use of the comparative operator *yáanáx* ‘more than’ (Section 6.2.1). Consequently, it is unlikely that sentences like (114) involve such metalinguistic comparison. I thank an anonymous reviewer for *NaLS* for raising this question.

<sup>28</sup> I thank two anonymous reviewers for *NaLS* for their helpful comments, criticisms, and questions concerning this issue.

Sentence (118a) consists of a Tlingit subcomparative where the embedded clause contains a negative predicate (*kulisáa* ‘narrow’) while the matrix clause contains a positive one (*koowáat* ‘long’). This sentence was rejected by 4/6 of the speakers it was presented to. However, sentence (118b) is a subcomparative where the embedded predicate is positive while the matrix one is negative. This sentence was accepted by all six speakers. It seems, then, that the key English judgments in (112) can indeed be replicated for parallel structures in Tlingit.

We find, then, that Tlingit also exhibits the Cross-Polar (A)Nomaly pattern in (112). In as much as this pattern motivates the view that negative predicates are morphosyntactically derived from positive ones, we must conclude that this view is motivated for Tlingit as well. Consequently, the possibility in (109) can be ruled out; all negative predicates in Tlingit – including ones that don’t overtly contain negation (e.g. *kulisáa* ‘narrow’) – are ultimately derived from a structure containing negation and their positive antonym (e.g., *kuliwóox* ‘wide’).<sup>29</sup>

This of course leaves open which of the remaining two possibilities – (110) or (111) – is right for Tlingit lexical antonyms. In regards to this question, one should note that besides lacking an overt negation, the lexical antonyms of Tlingit also exhibit two further properties distinguishing them from NEG antonyms. First, as we saw in Section 4.1, the NEG antonyms of Tlingit obligatorily appear in the ‘irrealis mode’ (26)-(28), and this irrealis morphology is triggered by the VP-external clausal negation in those forms. However, as can be seen in (5) and (118b) above, the lexical antonyms of Tlingit do not obligatorily appear in irrealis mode; indeed, such forms regularly appear in *realis* mode. This would suggest, then, that the lexical antonyms of Tlingit do not contain a VP-external clausal negation, unlike the language’s NEG antonyms. Furthermore, we saw in Section 4.4 that the NEG antonyms of Tlingit cannot be directly negated, and that this was again due to the presence of a VP-external clausal negation in such forms. Unlike those NEG antonyms, however, the lexical antonyms of Tlingit can be directly negated, as shown in (119) below.

**(119) Direct (Monoclausal) Negation of Tlingit Lexical Antonym**

Tlél yéi koolsaa.  
 NEG IRR.1CL.narrow  
*It’s not narrow*

(Eggleston 2013: 669)

Under the analysis in (111), where *yéi kwlisáa* ‘narrow’ underlyingly contains a clausal negation, sentence (119) would have to contain two instances of VP-external clausal negation, contrary to the more general constraint against such double-negations in Tlingit (Section 4.4).

We find, then, that the lexical antonyms in (5) exhibit properties that would not be consistent with their having the NEG antonym structure in (111). These features would, however, be consistent with the ‘incorporated negation’ analysis in (110). Under that analysis, the underlying negation in a Tlingit lexical antonym is an incorporated, derivational morpheme,

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<sup>29</sup> An anonymous reviewer for *NaLS* also points out that it would be interesting to examine whether any of the NEG antonyms in (1)-(3) can appear in Cross-Polar Nomaly sentences like (118b). As mentioned in Footnote 26, Buring (2007a,b) and Heim (2008) develop competing syntactic/semantic analyses of such sentences. Although space precludes reviewing here the details of those accounts, it would seem that Heim’s (2008) account would straightforwardly predict the possibility of forming Cross-Polar Nomaly sentences with Tlingit NEG antonyms, while Buring’s (2007a,b) account would not. Thus, the possibility of such sentences could provide an interesting ‘crucial experiment’ between these two approaches.

akin to the negative prefix *un-* in English. As already noted in Section 4.1, such a morpheme would not be expected to have any effects upon the inflectional morphology of the clause, and so would not trigger the irrealis mood seen with VP-external clausal negation. Furthermore, as seen earlier in Section 4.4, there is no syntactic incompatibility between an incorporated negation like English *un-* and VP-external clausal negation; the two are able to co-occur (42). Consequently, the account in (110) correctly predicts that Tlingit lexical antonyms can be directly negated.

In summary, contrary to their surface appearance, the lexical antonyms of Tlingit in (5) are not monomorphemic. Instead, like both the negative predicates of English and the NEG antonyms of Tlingit, they are syntactically derived from an underlying negation and their positive antonym. However, unlike the NEG antonyms of Tlingit, the language's lexical antonyms do not contain an instance of VP-external clausal negation. Instead, like the negative predicates of English, they seem to be formed via an incorporated negative operator, akin to the English prefix *un-*.<sup>30</sup> Finally, it should be observed that there is an apparent competition between the presence of this incorporated negative operator and the presence of the antonymic degree-relative operator *NEG-REL*. That is, it seems that no NEG antonym in Tlingit is ever formed from a predicate that already possesses a lexical antonym. For example, one cannot form NEG antonyms from the positive predicates in (5); a form like *tlél ut'á* 'not hot' can only express the propositional negation of (5a) *yat'áa* 'it is hot', and it can never have the stronger antonymic meaning of (5b) *si.áat* 'it is cold'. This is perhaps unsurprising, and it is quite similar to so-called 'blocking effects' found elsewhere in natural language. Exactly how this blocking relationship is to be captured is a matter that must be left to future research, but in general it seems that the use of *NEG-REL* in Tlingit is limited to those predicates that (for whatever reason) cannot independently combine with the type-<det,det> negation in (110).

## 9. Conclusion

We've seen that the NEG antonyms of Tlingit in (1)-(3) hold some interesting and important consequences for our general theory of gradable predicate meaning across language. Their central puzzling feature is that – as I showed in Sections 4 and 5 – they are a construction involving VP-external, clause-level negation, but are interpreted as negative gradable predicates. To capture these properties, we must assume that Tlingit differs from languages like English in two respects. First, degree heads like *POS* and the comparative operator can attach relatively high in the clause, at a position above clausal negation (NegP). Secondly, it is possible for certain degree operators in Tlingit (*i.e.*, *NEG-REL*) to undergo movement above negation and into the Specifier of NegP. This raises many novel questions regarding the cross-linguistic typology and syntactic variation of degree constructions, ones that must be left for now to future research. Furthermore, this analysis – as well as the data it is based upon – raise important new questions regarding the intervention conditions that govern the movement of degree operators, and how they may (or may not) vary across languages.

Finally, we saw that even the apparently monomorphemic negative predicates of Tlingit are actually derived from a structure containing negation and a positive predicate. This lends

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<sup>30</sup> It should be noted, however, that in Tlingit this 'incorporated negation' does not seem to ever have an independent overt realization. That is, there is not in Tlingit an overt negative prefix like *un-* in English, which forms part of the verbal word and inverts the meaning of the root. Consequently, we must assume that the type-<det,det> negative operator postulated in (110) obligatorily leads to a wholesale morphological readjustment of the resulting word.



further credence to the emerging view that negative antonyms are syntactically derived from positive ones (Rullmann 1995, Büring' 2007a,b, Heim 2008), but also raises some new puzzles concerning how the different means of syntactically forming negative predicates 'block' one another.

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