

# A Cognitive Approach to Referentiality Marking in a St’át’imcets Story

Nancy Hedberg  
Simon Fraser University

**Abstract:** Application of the Givenness Hierarchy theory of discourse reference is illustrated through analysis of one narrative in St’át’imcets. Consistent with the formal semantic literature on determiners in St’át’imcets, the findings suggest that the ‘assertion of existence’ determiners in St’át’imcets (Matthewson 1998) encode the cognitive status ‘referential’, while non-assertion-of-existence determiners encode the cognitive status ‘type identifiable’. Examples of the coding criteria that have been developed are explained. A summary table of the distribution of the assertion-of-existence forms across cognitive statuses is presented that shows, as expected, that these determiners can be used when the expression has any status that is referential or higher on the Givenness Hierarchy.

**Keywords:** determiners, St’át’imcets, referentiality, cognitive status, narrative

## 1 Introduction

The purpose of this paper is to explore how one cognitive-pragmatic theory of discourse reference, the Givenness Hierarchy (Gundel et al. 1993 and subsequent work), can be applied in Salish languages to explain some aspects of the use of a common determiner type in these languages, specifically, the ‘assertion of existence’ determiner in St’át’imcets described in Matthewson (1998). I focus on one St’át’imcets narrative, the first narrative presented in Callahan, et al. (2016): “The Owl and the Girl.”

## 2 The Givenness Hierarchy

The Givenness Hierarchy theory is a cognitive/pragmatic theory of discourse reference. It proposes that in addition to descriptive or conceptual information, nominal expressions in discourse encode procedural information about where in memory a representation of the associated referent or interpretation can be found in the addressee’s mind, or whether and how to create a representation if one is not already in memory. The procedural information is called the ‘cognitive status’ of the expression and is expressed by way of the determiner or pronominal form of the expression. Table 1 presents the six cognitive statuses that are posited along with the respective English forms encoding each status.

In focus >	Activated >	Familiar >	Uniquely > Identifiable	Referential >	Type Identifiable
<i>it, she</i>	<i>that, this, SHE, this N</i>	<i>that N</i>	<i>the N</i>	<i>indefinite this N</i>	<i>a N</i>

Table 1. The Givenness Hierarchy<sup>1</sup>

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<sup>1</sup> *It* stands for all unstressed 3rd person personal pronouns, *SHE* for all stressed personal pronouns, and *N* for an NP complement of a determiner.

The definitions of the cognitive statuses can be expressed as instructions to the addressee as to how to associate a relevant mental representation of the discourse referent or interpretation with the expression, as shown in (1).

(1) in focus:	associate representation in focus of attention	FOC
activated:	associate representation in working memory	ACT
familiar:	associate representation in memory	FAM
uniquely identifiable:	associate unique representation by end of NP	UID
referential:	associate unique representation by end of sentence	REF
type identifiable:	associate type representation	TID

The six statuses are in a unidirectional entailment relation. That is, by definition, any interpretation that is activated is also familiar, uniquely identifiable, and so on. This means that the forms on the hierarchy can be used not only when the status they encode obtains, but also when any higher (leftwards) status obtains. Thus, a definite article phrase in English is commonly used when the referent is familiar or activated, and even when it is in focus, especially when the conceptual content helps the addressee to identify the referent from among competing referents and when there is no need to draw particular attention to the referent through use of a demonstrative.

Nonetheless, since speakers are assumed to be as informative with their referring expressions as possible, use of a lower form on the Givenness Hierarchy can sometimes be used to implicate that a higher status does *not* obtain. Thus, indefinite article expressions English typically implicate that the interpretation is not uniquely identifiable, familiar, activated, etc.

### 3 Referential Determiners in Salish Languages

Salish languages are particularly interesting for Givenness Hierarchy theorists because they do not contain definite articles, but do contain sets of articles that appear to us to mark the cognitive status ‘referential’. These are the St’át’imcets assertion-of-existence determiners of Matthewson (1998), the Skwxwú7mesh deictic determiners of Gillon (2013), and the Nsyílxcn domain-restricting determiners of Lyon (2015). These authors have shown that such determiners do not encode discourse familiarity or uniqueness and so are not definite articles. Matthewson follows Givón in defining their function as that of encoding referentiality, citing his informal definition of assertion of existence shown in (2):

- (2) *Assertion of existence* (informal definition):  
 “the speaker’s intent to ‘refer to’ or ‘mean’ a nominal expression to have non-empty reference – i.e. to ‘exist’ – within a particular universe of discourse (i.e. not necessarily the real world)” (Givón 1978: 293-294)

The Givenness Hierarchy uses the term ‘referential’ for this notion, and in Hedberg, Gundel, and Borthen (in press), the Salish determiners are proposed to encode this status. The definition of referentiality that we assume is given in (3).

- (3) *Referential*:  
 The speaker intends to refer to a particular object or objects. To understand such an expression, the addressee not only needs to access an appropriate type-representation, he

must either retrieve an existing representation of the speaker's intended referent or construct a new representation by the time the sentence has been processed.” (Gundel et al. 1993:276)

While Matthewson, Gillon, and Lyon go on to propose illuminating formal semantic analyses of assertion-of-existence determiners in St’át’imcets and Skwxwú7mesh, and the determiners in the two languages appear to differ from each other semantically to some extent, my purpose is to show how a Givenness Hierarchy perspective on these determiners can help us to understand how the determiners are actually used in texts, specifically in one St’át’imcets text: “The Owl and the Girl” told by Carl Alexander.

In a narrative, the speaker is telling a story, and chooses nominal expressions that enable the listener to keep track of what the characters are doing as the events described unfold. “The Owl and the Girl” is a good narrative to examine because there are several prominent characters, each of whom comes in and out of primary focus, but persists to the end of the story: the owl, the girl he falls in love with, and the girl’s mother. Other more subsidiary characters sometimes take part in the action: the girl’s father, the owl’s friend. There are also a number of discourse referents that play a more evanescent role: different baskets of saskatoon berries, some horses, the owl’s nose, eyes, head, and face, the girl’s hair, various locations, pine pitch, a mirror. The story thus introduces a rich set of characters and other discourse referents that advance and retreat in the speaker’s and listeners’s consciousness as the story proceeds, which results in a good database for examining the use of forms of nominal expressions in St’át’imcets.

#### 4 Methodology

In studying the nominal expressions in a given language, the Givenness Hierarchy frequently relies upon coding expressions in extended texts for their cognitive status. Gundel and colleagues devised a set of coding guidelines (Gundel et al. 2006) in order to code the different expressions reliably. Then a quantitative analysis of the mapping between cognitive status and pronominal/determiner form is made, and a rough Givenness Hierarchy for the language is constructed. The proposed hierarchy is then tested against native speaker judgements for refinement. For examples of this methodology applied to four languages previously unstudied within the framework, see Gundel et al. (2010).

I will be concerned here only with determiner forms in St’at’imcets, and so will confine my analysis to the assertion-of-existence, *ta-N-a* (DET-N-EXIS forms), which I will claim to encode the cognitive status ‘referential’, and the non-assertion-of-existence determiner forms (Matthewson 1998), *ku-N* (DET-N). I shall propose that the latter encodes the cognitive status ‘type identifiable’, the status furthest to the right on the hierarchy, a status that we claim also obtains for all expressions encoding statuses to the left. Predicative expressions also have the status ‘type identifiable’. The system for plurals, mass terms and quantifiers has not yet been worked out. The definition of ‘type identifiable’ is shown in (4).

(4) *Type identifiable:*

The addressee is able to access a representation of the type of object described by the expression.” (Gundel et al. 1993: 276)

Although the structure of the Givenness Hierarchy dictates that all expressions marked by the *ta-N-a* forms also have the status ‘type identifiable’, I will suggest that use of the non-assertion-of-existence determiner may typically *implicate* a non-referential interpretation. Since implicatures are defeasible, this leaves open the possibility that such determiners may in some contexts be used

even in cases where there does seem to be a referent intended. I suggest one such possible usage below, but exploration of that possibility is beyond the scope of this short paper.

The method I used to analyze the text was to highlight expressions exhibiting the two relevant nominal forms in the narrative in different colors (orange and blue), so that I could get a good idea about how they were being used as the narrative proceeds. I also color-coded demonstrative expressions in purple and indicated places where a zero-pronoun seemed to occur. Finally, I coded in green the form *nilh*, glossed COP, when I found it, because it seems to be used sometimes as a focus particle, and so is relevant to cognitive-status coding. I then read through the narrative closely, labelling each form of *ta-N-a* expression with its cognitive status at that point in the narrative, following the coding protocol. I counted the number of times that the form was coded with a particular status and made a table illustrating the distribution. Examples of my coding and the table are discussed in the following section.

## 5 Results

### 5.1 Examples of cognitive-status coding

I present first the results of my analysis of the first seven lines of the story. Example (5) followed by (6) illustrates a perfect example of a new referent being introduced and then referred to again in the next sentence. As we expect, both times the owl is introduced *ta-N-a* is used. The first instance is labelled REF for ‘referential’ because it fits REF coding criteria (1) (“It is mentioned subsequently in the discourse”) and (2) (“It is evident from the context that the speaker intends to refer to some specific entity”). The second instance is labeled FOC for ‘in focus’ because it fits FOC coding criterion (3) (“It is the interpretation of the syntactic focus of the immediately preceding clause i.e., postcopular position of a cleft or existential sentence”).

(5) There was **this owl** that went to visit the people **at *Sk'emqín*** (‘Head of the Lake’).

ta=skalúl7=a	l=ta=sk'em-qín=a
DET=owl-EXIS	at=DET edge-top=EXIS
REF	FAM

(6) **The owl** was always going there and looking around.

ta=skalúl7=a
DET=owl-EXIS
FOC

The place name in (5) is labelled FAM for ‘familiar’ because the place is presumably familiar to the listener. That is, it fits FAM coding criterion (2) (“It can be assumed to be known by the hearer through cultural/encyclopedic knowledge or shared personal experience with the speaker”).

The girl in the next clause is labelled REF, for the same reasons as before, and in (8), the woman is labelled UID for ‘uniquely identifiable’ because it fits UID coding criterion (1) (“The referring form contains adequate descriptive/conceptual content to create a unique referent”). In (8) also, the place name is labelled ACT because it was just referred to in the prior sentence and so “it is part of the interpretation of one of the immediately preceding two sentences” (ACT, coding criterion 1).

(7) So then he fell in love with **a girl** over there.

ta=sm'ém'lhats=a  
DET=woman•CRED•=EXIS  
REF

(8) That girl was the daughter of **the woman** who was the leader of **the people at Sk'emqín**.

ta=smúlhats=a                      i=sk'em-qín-mec=a  
DET=woman=EXIS                      PL.DET=edge-top-person=EXIS  
UID    ACT

In (9), the owl is mentioned again. I labelled this expression ACT because, again, the referent was mentioned in the preceding two sentences. The girl is likewise still activated in (10), and the woman in (11) had been evoked through the second-person reference in the immediately preceding sentence shown in (10).

(9) **The owl** was there, so he asked:

ta=skalúl7=a  
DET=owl-EXIS  
ACT

(10) “Can I take **your daughter**? How much do you want?”

ta=sm'ém'lhats=a  
DET=woman•CRED•=EXIS  
ACT

(11) “Oh,” **the woman** said, “Go pick me **lots of tsáqwem** (saskatoon berries).”

ta=smúlhats=a                      ku=cw7it    stsáqwem  
DET=woman=EXIS                      DET=much    saskatoon.berry  
ACT    TID

Example (11) also shows a clearly non-referential use of *ku-N* to evoke ‘lots of saskatoon berries.’ I labelled this instance TID because it fits the coding criterion for ‘type identifiable,’ which says that “An interpretation is type identifiable if the sense of the phrase (the descriptive/conceptual content it encodes) is understandable.”

A good example showing how a non-referential interpretation can be continued with a referential one can be seen in the passage in lines (48)-(57) of the narrative, the second passage which I’ll discuss, where the woman tells the owl that he now must bring her some horses after he finally satisfied her demand for saskatoon berries. In the example below in (12), she asks him for horses using *ku-N*, and uses that form again in (14). Since she doesn’t have any particular horses in mind, *ta-N-a* is not used.



(20) In the morning, he took **some really handsome horses that belonged to him**, and he

i=7álas=a                      amh-ál'qwem'                      tsq'áx7-s  
 PL.DET=very=EXIS      good-appearance      horse-3POSS  
 REF

brought them over.

(21) He took them to **the woman** in *Sk'emqín*.

ti-smúlhats-a                      [s]k'em-qín-a  
 DET=woman=EXIS      edge-top-EXIS  
 FAM                                      FAM

One last thing to note in this passage is that the place names in (19) and (21), as well as the reference to the woman in (21) are labelled FAM because these referents were not mentioned in the previous two sentences, and so are not activated, but they fit FAM coding criterion (1) (“It was mentioned at any time previously in the discourse.”)

I don’t know enough about St’át’imcets or about how to analyze quantificational or nominalized expressions in the Givenness Hierarchy framework to give a detailed analysis of *ku-N* in this narrative. But a couple of additional uses do jump out from the text. First, I note that one possessive phrase contains a *ku-N* marked possessor. This was line (92) from the narrative, whose translation is given in (22).

(22) “...we washed her hair, and we used something different: **bear grease** was what we used.”

i=qwtálh-ts=a                                      ku=míxalh  
 PL.DET=grease-3POSS=EXIST      DET=bear  
 TID    UID

Here, I coded the possessed noun as UID because such phrases are definite in languages such as English since association with the possessor bridges to a unique referent. The possessor is marked with *i-N-a*. Interestingly, however, in this case the possessor is marked with *ku-N*. Although this may be because the quoted speaker is lying at this point, trying to fool the owl into thinking that the resin that they plan to wash him in is bear grease, it seems more likely to me that the TID form is used because even if it were bear grease that they had used, it would not have been necessary to specify that it came from some particular set of bears.

A similar case arises at line (111) in the narrative, of which I present the translation as example (23). *Ku-t'éna7* is here being used predicatively. Hence a type-identifiable form is used.

(23) So then he stuck the skin from his eyes on his head, like **ears**.

ts'íla ku-t'éna7  
 like      DET=ear  
 TID

## 5.2 Summary Table of the Form-Status Distribution

Finally, I present the results of the cognitive-status analysis of the *ta-N-a* forms in the narrative in Table 2.

Status	FOC	ACT	FAM	UID	REF	TID
Total = 148	42	40	38	17	11	0
Percentage	28.4%	27.0%	25.7%	11.5%	7.4%	0%

Table 2. Distribution of *ta-N-a* forms in the narrative

It can be seen from the table that all 148 of the expressions with this form were referential, and that the frequency of each status decreases from left to right. This is expected since most of the discourse referents are characters who appear again and again, and hence are familiar. It is likely that so many full noun phrase, as opposed to pronominal, references were made in this story because there are so many characters, and it is therefore necessary to use full noun phrases that encode conceptual content in order to keep clear who is being talked about at any given point in the story.

## 6 Conclusion

This paper has looked at one narrative in St'át'imcets in order to explore how the Givenness Hierarchy framework can be applied in analyzing the determiner expressions in narratives in this language. It was found that assertion-of-existence determiners appear to encode the cognitive status 'referential', while non-assertion-of-existence determiners appear to encode the cognitive status 'type identifiable.' I very much look forward to examining other Salish texts in this framework.

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