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Preface to the 27th volume

Welcome to the 27th volume of the Working Papers of the Linguistics Circle!

This current volume of WPLC is a continuation of the tradition at the University of Victoria to provide opportunities for linguistics students to publish their research, both from UVic and other universities. For the past few years, WPLC has been dedicated to the publication of specialized volumes, such as our volume on minority languages or the most recent conference proceedings of the North West Linguistics Conference.

Following last year's volume, we have decided to open the field for all submissions, and as a result we are proud to present a collection of current papers that exhibit the wide range of research areas that linguistics students pursue. The papers in the collection come from various disciplines. We open this year's volume with two studies on syntactic properties of North American Aboriginal languages, continue with an investigation into the current state of Canadian language policy and Indigenous language loss, and finish with a semantic analysis of counterfactuals in Japanese language.

We hope that this variety of topics can not only benefit our readers in their specific areas of interest, but that it also serves as an invitation to current and future students to publish their research and exchange ideas with a community of graduate students.

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WPLC 27

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Dependencies in syntax and discourse: Obviation in Blackfoot and beyond

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Obviation is a hallmark trait of Algonquian, but how does it fit in a typology of natural language phenomenon? Analyses tend to focus on either its discourse or syntactic properties, and there is disagreement about whether obviation is pragmatic or syntactic in origin. I propose that pragmatic and syntactic approaches are not incompatible, but rather reflect a phenomenon I refer to as RECRUITMENT, whereby functional items in the syntax take on discourse uses. Drawing on data from Blackfoot, I demonstrate that obviation encodes syntactic dependencies, and this renders it compatible to signal dependencies in discourse. The analysis is also extended to Algonquian languages more broadly.

Keywords: Algonquian; obviation; dependency; syntax; discourse; topic

1 Introduction

Obviation, a hallmark property of the Algonquian languages, is a typologically rare phenomenon. It refers to a morphological feature that appears on nouns and pronouns to distinguish between multiple third person referents. Within a clause or stretch of larger discourse, one third person is marked PROXIMATE and all others OBVIATIVE, with the former typically described in terms of referring to a more discourse-salient individual than the latter. Various linguistic phenomena have been compared to or equated with Algonquian obviation: languages including Tzotzil (Mayan, Aissen 1997), Chamorro (Austronesian: Aissen, 1997), Karuk (Hokan: Macaulay, 1992), Ktunaxa (isolate: Dryer, 1992), and Ojibwe (Mixe-Zoquean: Zavala, 2007) (amongst others) have been claimed to have obviation systems that are comparable to those found in Algonquian. However, with the possible exception of Ktunaxa (a language isolate speculated to have genetic or geographical ties to Algonquian), these comparisons tend to be somewhat tenuous and the similarities between Algonquian obviation and what is found in these other languages are often weak.

This leaves us with a question of how Algonquian obviation fits within a typology of natural language phenomena. Part of the reason why obviation is difficult to classify is that it operates at the interface of morphosyntax and discourse: it has clear morphological exponents and triggers syntactic reflexes such as agreement and concord, yet interpretively it signals discourse relations, which are often assumed to be extra-grammatical. Research on obviation tends to

focus on either the morphosyntactic *or* discourse properties, and there is some debate over whether obviation is syntactic or discourse-related in origin (cf. Goddard, 1990; Quinn, 2006; Rhodes, 1990; see also Zúñiga, 2006 for a similar discussion on direct/inverse, a related phenomenon also found in Algonquian). Morphosyntactic approaches are typically reductionist in nature, analysing obviation as a reflex of binding (e.g., Grafstein, 1984; Kiparsky, 2002) or case (e.g., Bruening, 2001), or as a subtype of a different morphosyntactic feature such as person (Brittain, 2001; Frantz, 1966), number (Piriyawiboon 2007), or gender (Bliss, 2005a). Discourse-based approaches, on the other hand, focus on the ways in which obviation shapes a text, or how proximate and obviative assignment proceeds through a narrative. These nuanced perspectives on obviation are invaluable for understanding its role in individual languages, but from a typological standpoint, they do little to embed obviation in a crosslinguistic context. As such, the debate between whether obviation is fundamentally is syntactic or discourse-related boils down to whether obviation can be reduced to an independently-attested principle of grammar, or whether it should be deemed a typological anomaly, a specialized marking of discourse functions found only in Algonquian.

In this paper, I discuss the obviation system of a particular language: Blackfoot (Plains Algonquian: Alberta). I demonstrate that obviation in Blackfoot must be described in syntactic terms: the proximate/obviative contrast correlates with a contrast between phrases that cannot be syntactically dependent on another phrase (proximate) versus those that must be (obviative).

I propose that the syntax of obviation in Blackfoot gives us a clear route towards understanding how it can operate at a discourse-level. I demonstrate that there is an analog between syntactic and discourse relations in Blackfoot: proximate marking signals a lack of dependency at both the syntactic and discourse levels, and conversely, obviative marking signals the presence of such a dependency. It is this compatibility between syntactic and discourse functions that facilitates the discourse uses of proximate and obviative marking: they are natural candidates for signalling discourse dependency relations because of their role in signalling syntactic dependency relations.

This paper proceeds as follows. In Section 2, I give a more detailed introduction to Algonquian obviation. In Sections 3 and 4, I focus on the syntactic and discourse properties of Blackfoot obviation, respectively. In Section 5, I propose that the syntax-discourse connection suggested for Blackfoot can be applied more broadly. In Section 6 I conclude.

2 Obviation: an overview

2.1 What is obviation?

Throughout Algonquian, nouns are inflected for three grammatical categories: number, animacy, and obviation (cf. Bloomfield, 1946). NUMBER refers to the contrast between nouns that refer to individuals (e.g., singular *míini* ‘berry’)

versus those that refer to groups (plural *míinists* ‘berries’).¹ ANIMACY partitions nouns into two classes: animate and inanimate, and while these classes tend to align with ontological categories of animacy, there are some mismatches. Specifically, nouns referring to human beings (e.g., *aakii* ‘woman’) are always grammatically animate, but nouns referring to inanimate objects may be grammatically inanimate (e.g., *míistak* ‘mountain’) or grammatically animate (e.g., *isttoán* ‘knife’). OBVIATION is a third grammatical category that partitions nouns into two subtypes, referred to as PROXIMATE and OBVIATIVE. An example from Blackfoot is given below.

- (1) a. *Á-* *yissksimaa* **-wa** *om* **-wa** *imitáá* **-wa**
IMPF- *carry.load.AI* **-PROX** *DEM* **-PROX** *dog* **-PROX**
‘That dog (PROX) is a pack dog.’ (lit: it carries loads)
- b. *Á-* *yissksimaa* **-yini** *om* **-yi** *imitáá* **-yi**
IMPF- *carry.load.AI* **-OBV** *DEM* **-OBV** *dog* **-OBV**
‘That dog (OBV) is a pack dog.’ (lit: it carries loads)

In (1a), the noun *imitáá* ‘dog;’ is marked proximate, and triggers proximate agreement on the verb and the demonstrative determiner. In (1b), the same noun is marked obviative, and triggers obviative agreement on the verb and the demonstrative determiner. In some other Algonquian languages, only the obviative is morphologically marked, contrasting with a morphologically unmarked proximate category.² This is illustrated with an example from Anishnaabemowin:

- (2) a. *n-* *waab* **-am** **-aa** *moozw*
I *see* **-TA** **-DIR** *moose*
‘I see a moose (PROX)’

¹ Unless otherwise stated, examples are given in Blackfoot and are from the author’s fieldwork with speakers of the Siksiká and Kaináá dialects (2003-present). The generalizations presented here reflect my consultants’ judgments, and are not necessarily consistent with Frantz’s (1991, 2009) Blackfoot Grammar. Data are presented in a four-line format, with the top line representing the surface form in the standard Blackfoot orthography (cf. Frantz, 2009, Appendix D), and the second line representing the morphemes in their underlying forms. Abbreviations are as follows: 1,2,3=1st,2nd,3rd person; ACCOMP(animent); AI=animate intransitive; BEN(efactive); CONJ(unct); DEM(onstrative); DIR(ect); IC=initial change IMPF=imperfective; INAN(imate); INTNS=intensifier; INV(erse); INVIS(ible); LOC(ative); MOD(al); NEG(ative); NOM(inalizer); PL(ural); POSS(essive); PRN=pronoun; PROX(imate); SG=singular; TA=transitive animate.

² There is variation across the family with respect to the interaction between these three features. For example, in Blackfoot the proximate/obviative contrast is neutralized with all but singular and animate nouns, but other languages display different neutralization patterns (see Bliss and Oxford, to appear for details).

- b. John o- waab -am -aa -an moozw **-an**
John 3- see -TA -DIR -OBV moose -OBV
 ‘John sees a moose (OBV).’ (Grafstein 1984: 34)

Obviation serves a reference-tracking function, disambiguating between multiple 3rd persons in a clause. Across Algonquian, it is reported that at most one 3rd person referent can be marked proximate in a clause; all others are marked obviative.³ Blackfoot examples are given below.

- (3) a. Ann -wa Leo íhpok- inihkim -yii -wa
DEM -PROX Leo ACCOM- sing.TA -DIR -PROX
 ann **-yi** n- Itán **-yi**
DEM -OBV I- Daughter -OBV
 ‘Leo sang with my daughter.’
- b. *Ann -wa Leo íhpok- inihkim -yii -wa
DEM -PROX Leo ACCOM- sing.TA -DIR -PROX
 ann **-wa** n- Itán **-wa**
DEM -PROX I- Daughter -PROX
 intended: ‘Leo sang with my daughter.’

In (3a), the subject, *na Leo*, is proximate and the object *ni nitáni* ‘my daughter’ is obviative. (3b) shows that it is ungrammatical for both to be marked proximate.

Just as number and animacy are grammatical categories that are (loosely)⁴ correlated with ontological or “real-world” classifications, so is obviation. Although there is considerable variation across Algonquian, in all the languages proximate nominal expressions are thought to be more discourse-salient than obviative ones in some sense (e.g., the proximate nominal expression is the perspective-holder and/or discourse topic, cf. Dahlstrom, 1991; Genee, 2009; Goddard, 1984, 1990; Junker, 2004; Mühlbauer, 2008; Russell, 1991, 1996).

2.2 The tension: syntax or discourse

Analyses of Algonquian obviation tend to focus exclusively on either its discourse properties (e.g. Genee, 2009; Goddard, 1984, 1990; Hasler, 2002; Thomason, 1995, 2003) or its syntactic properties (e.g., Aissen, 1997; Bruening, 2001; Grafstein, 1984), and there is some debate as to whether obviation is fundamentally discourse-based or syntactic in essence and origin.

Proponents of the view that obviation is fundamentally a discourse phenomenon point to what Goddard (1990: 317) refers to as “nonautomatic discourse uses of the obviative-proximate obviation.” In most cases the choice of whether a given nominal expression is marked as proximate or obviative is at the

³ In at least some languages, the ban against multiple proximate referents within a single clause is relaxed in informal contexts (cf. Thomason, 1995).

⁴ Even grammatical number does not always reflect the real-world contrast between individuals and groups. I return to this in Section 4.2.

discretion of the speaker: it is not automatically regulated by any syntactic conditions. For example, consider the contrast illustrated by example (1) above. Both (1a) and (1b) are grammatical utterances. What regulates the choice of whether *imitaa* “dog” is marked proximate (a) or obviative (b)? The choice is driven by properties of the discourse. Different languages (and different discourse contexts) seem to call for different protocols, but the general observation is that, for a nominal expression to be marked proximate, its referent is in some sense salient or foregrounded in the discourse, in contrast with the referents of all other nominal expressions, which are backgrounded by way of obviative marking.

Conversely, proponents of the view that obviation is a fundamentally syntactic phenomenon point to the fact that discourse structuring cannot account for all instances of proximate and obviative assignment. For example, there is a strict syntactic restriction on proximate/obviative assignment across Algonquian, namely that nouns possessed by a 3rd person possessor are obligatorily obviative, regardless of whether the possessor is proximate or obviative, as shown below.

- (4) a. *Ann **-wa** ot- ómitaa -m **-wa**
 DEM **-PROX** 3- *dog* - *POSS* **-PROX**
 iyíístap- okska’si -wa
 away- *run.AI* -*PROX*
 intended: ‘Her dog ran away.’
- b. Ann **-yi** ot- ómitaa -m **-yi**
 DEM **-OBV** 3- *dog* - *POSS* **-OBV**
 iyíístap- okska’si -wa
 away- *run.AI* -*PROX*
 ‘Her dog ran away.’

In (4a), the possessor is 3rd person, and it is ungrammatical for the possessed noun to be marked as proximate. (4b) is the grammatical alternative to (4a), in which the possessed noun is marked as obviative. This syntactic constraint on obviation trumps any discourse-level considerations: a noun possessed by a 3rd person possessor must be obviative, regardless of whether the speaker wishes to foreground or background its referent in the discourse.⁵

In short, there are mismatches between the syntactic and discourse-based reflexes of obviation. At least some cases of proximate/obviative assignment in a discourse span appear not to be syntactically conditioned, and conversely, at least some cases of proximate/obviative assignment within a syntactic frame appear not to be discourse-conditioned.

What does this mean for a theory of obviation and its role in natural language? Typologically speaking, does obviation share an affinity with

⁵ A second syntactic constraint that has been noted for some languages is found in ditransitive constructions: if both objects are 3rd person, the direct object is necessarily obviative (cf. Grafstein, 1984 for Ojibwe; Bliss, 2005a for Blackfoot)

discourse-level phenomena such as prosody or other means of Focus-marking, or is it more akin to e.g., Case morphology, reflecting a syntactic distribution of constituents? Or is it altogether something different, an anomaly that deserves special treatment in our models of natural language?

To frame the question differently, we can ask what constitutes the lexical entry for a proximate or obviative morpheme. Does it include a meaning component that specifies its discourse function? Is it coded to associate with a syntactic category, function, or position? What is the contribution of an obviation morpheme, and how does it fit in a typology of grammatical categories?

In what follows, I focus on obviation in one particular language, Blackfoot. I demonstrate that proximate and obviative morphemes in Blackfoot exhibit distributional differences, and I claim that this is indicative that they have different syntactic functions. I then go on to show that the discourse functions of proximate and obviative morphemes can be derived via their syntactic functions, suggesting that discourse functions do not need to be directly encoded in the lexical entries of proximate and obviative morphemes. I then span out to consider obviation across Algonquian and I demonstrate that, despite variation in both discourse and syntactic functions, there is a common thread suggesting a unified treatment.

3 Obviation in Blackfoot: syntactic in/dependence

In the preceding section, we observed that not all instances of proximate and obviative assignment are syntactically regulated. However, in this section I demonstrate that, however they happen to be assigned, proximate and obviative morphemes in Blackfoot have different syntactic reflexes: proximate nominal expressions have a different syntax than obviative ones. This suggests that proximate and obviative morphemes themselves have different syntactic functions, and I argue that they differ with respect to syntactic dependency relations.

3.1 Distributional differences

Proximate and obviative nominal expressions have different syntactic properties. First let's consider proximate nominal expressions, which exhibit free word order: they can appear in various positions in the surface string.⁶ An example with a proximate object is given in (5) below.

⁶ This is abstracting away from the interpretive differences associated with different word orders. In Blackfoot, the preverbal or clause-initial position is associated with a Focus (i.e., new information) interpretation, cf. Bliss, 2013; Genee and Wolvengrey, 2014. Both proximate and obviative nominal expressions are compatible with Focus interpretations, cf. Bliss, 2005b; Genee, 2009.

- (5) a. **Ann -wa n- ínsst -innaan -wa**
DEM -PROX I- sister -IPL -PROX
 nít- sspommo -a -wa
I- help.TA -DIR -PROX
 ‘I helped our sister.’

b. Nítsspommoawa **anna nínsstsinaana**.

The generalization extends to all proximate nominal expressions; regardless of their grammatical function (i.e., whether they function as a subject, object, or oblique), proximate nominal expressions can be freely ordered. In (5), the proximate nominal expression is the object, and in (6) is an example of a freely ordered proximate subject.

- (6) a. **Om -wa imitáá -wa**
DEM -PROX dog -PROX
 nit- íímmst- -omo -ok -wa -áyi
I- steal.food -TA. BEN -INV -PROX -3SG.PRN
 ‘The dog stole it from me.’

b. Nitsíímmstomokáyi **oma imitááwa**.

In addition to showing flexibility in their word order, proximate nominal expressions are also optional, again regardless of their grammatical function. This is illustrated for a proximate subject in (7). Although not shown, the same generalization applies to objects.

- (7) a. **A’páwaawahkaa -wa ann -wa Pióhkomiaaki**
walk.around.AI -PROX DEM -PROX far.sounding.woman
 ‘Far Sounding Woman is walking around.’

b. **A’páwaawahkaawa**
 ‘S/he is walking around.’

In (7), the proximate nominal expression can be omitted, and the resulting clause is still grammatical.

Let’s compare the behaviour of proximate nominal expressions with obviative ones. First, the same freedom of word order is not found with obviative nominal expressions: regardless of grammatical function, it is ungrammatical for an obviative nominal expression to appear preverbally, unless it is resumed by an enclitic pronoun. This is illustrated in (8) below.

- (8) a. **Áókataki -yini ann -yi w- inssts -yi**
bead.AI -OBV DEM -OBV 3- sister -OBV
 ‘His sister does beadwork.’

b. ***Anni ónssts** áókatakiyini.

c. **Ann -yi w- inssts -yi** áókataki -yini **-áyi**
DEM -OBV 3- sister -OBV bead.AI -OBV -3SG.PRN
 ‘His sister does beadwork.’

In (8a), the obviative subject *anni ónssts* ‘his sister’ is postverbal, and this is grammatical. In (8b), the same nominal expression appears in a preverbal position, and this is ungrammatical. (8c) is the grammatical alternative, in which an enclitic *-áyi* appears on the verb. The generalization that enclitics must resume preverbal obviative expressions is true not only of subjects but also objects, as shown in (9).

(9) a. Kit a'páistssto -a -yini **om -yi saahkómaapi -yi**
2 wave.TA -DIR -OBV DEM -OBV boy -OBV
 ‘You are waving at that boy.’

b. **Om -yi saahkómaapi -yi**
DEM -OBV boy -OBV
 kit- a'páistssto -a -yini **-áyi**
2- wave.TA -DIR -OBV -3SG.PRN
 ‘You are waving at that boy.’

c. ***Omi saahkómaapii** kita'páistsstowayini.

Just as an enclitic is required to resume an obviative nominal expression if it moves from its postverbal position, an enclitic is also required to resume an obviative nominal expression if it is omitted. In other words, unlike proximate nominal expressions, obviative ones are not optional. This is shown in (10); although not shown, the same generalization extends to obviative objects.

(10) a. **Áísokssta -yini ann -yi ot- issítsimaan -yi**
nurse.well.AI -OBV DEM -OBV 3- baby -OBV
 ‘Her baby is nursing well.’

b. **Áísokssta -yini -áyi**
nurse.well.AI -OBV -3SG.PRN
 ‘S/he is nursing well.’

c. ***Áísoksstayini.**

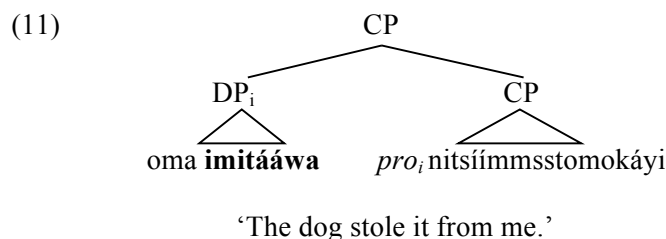
In summary, proximate and obviative nominal expressions have different syntactic properties. Whereas proximate nominal expressions can be freely moved or omitted, obviative ones cannot. This is summarized in Table 1.

Table 1. Proximate versus Obviative Nominal Expressions

	Proximate	Obviative
Freely ordered	✓	✗
Optional	✓	✗

3.2 Obviation codes syntactic dependency relations

In Section 3.1, we saw that proximate and obviative nominal expressions exhibit different syntactic properties. How can we interpret this? The data indicate that proximate – but not obviative -- nominal expressions exhibit the canonical properties of adjuncts: they can adjoin to the left or the right of the clause, and they can be omitted.⁷ Although interpreted as arguments, proximate nominal expressions don't pattern syntactically as arguments, suggesting that they are adjoined outside the clause. As for how they get interpreted as arguments, I adopt a version of Baker's (1991, 1996) model, in which argument expressions can be adjoined outside the clause, but bind a pronominal argument (null *pro*) inside the clause.⁸ This is schematized in (11) below.



As for obviative nominal expressions, on the other hand, these do not exhibit adjunct-like properties. They show the syntactic restrictions expected of arguments: their word order is fixed and they are obligatory. Abstracting away from the question of what the relevant argument positions are in Blackfoot,⁹ we can conclude that obviative nominal expressions are generated inside the clause, as schematized below.

⁷ The idea that there is both right- and left-adjunction is contra Kayne (1994), who claims that adjunction is strictly on the left. However, it is consistent with Baker's (1996, 2006) claim that (many) polysynthetic languages permit both right- and left- adjunction.

⁸ Baker's model, often referred to as the Pronominal Argument Hypothesis, is widely assumed or adopted for Algonquian languages (e.g., Brittain, 2001; Junker, 1994, 2004; Reinholtz, 1999; Reinholtz and Russell, 1995). For criticism of this widespread assumption, see LeSourd, 2006, and for alternative analyses see Bruening, 2001 (Passamquoddy), Christianson, 2002 (Odawa), and Hamilton, 2015 (Mi'kmaq).

⁹ See Bliss (2013) for a discussion of Blackfoot's A-positions.

- (12)
- | | | |
|--|----------------|--------|
| | CP | |
| | 3 | |
| | 3 | |
| | Áókatakiyináyi | DP |
| | | 5 |
| | anni | ónssts |

‘His sister does beadwork.’

In short, whereas proximate nominal expressions are clause-external, obviative ones are clause-internal. This means that, although identical on the surface, examples such as those in (1a) and (1b) above in fact have very different structures.

The relationship of the proximate nominal expression to the clause in (1a) is different from that of the obviative nominal expression to the clause in (1b). In (1a), the nominal expression is not dependent on the clause: it is generated outside of it. In (1b), on the other hand, the nominal expression is dependent on the clause; it is generated inside of it.

The claim that the obviation in Blackfoot can be understood in terms of syntactic dependency relations is supported by the distribution of proximate and obviative suffixes in clauses. While proximate *-wa* can appear on nominal expressions that function as arguments, it can also appear on either verbs or nouns to form independent matrix clauses. Examples are given below.

- (13) *Á-* ihpiyi **-wa**
IMPF- dance.AI -PROX
 ‘S/he is dancing.’

- (14) Piitáá **-wa**
eagle -PROX
 ‘S/he is an eagle.’

In (13), the verb *ihpiyi* ‘dance’ is suffixed with the proximate suffix *-wa*, and can function as a matrix clause. Without the *-wa* suffix, the verb alone cannot be construed as a clause. Similarly, in (14), the noun *piitaa* ‘eagle’ is suffixed with *-wa* and here too it functions as an independent matrix clause. In short, the addition of the proximate suffix *-wa* to either a verb or a noun forms an independent clause. The same is not true of obviative *-yi*; nouns suffixed with *-yi* can only function as arguments, as shown in (15). Verbs suffixed with *-yi* are also construed as arguments (not clauses); the *-yi* suffix serves to nominalize the verb, as in (16).

- (15) a. *Piitáá **-yi**

eagle **-OBV**
intended: ‘S/he is an eagle.’

- b. Om *-yi* pittää **-yi** áipotta *-yini* *-áyi*
DEM -OBV eagle -OBV fly.AI -OBV -3SG.PRN
‘That eagle is flying.’

- (16) a. *(Ann *-yi*) á- ihpiyi **-yi**
(DEM -OBV) IMPF- dance.AI -OBV
intended: ‘S/he is dancing.’

- b. Ann *-yi* á- ihpiyi **-yi**
DEM -OBV IMPF- dance.AI -OBV
ákaa- omatapoo *-yini* *-áyi*
PERF- leave.AI -OBV -3SG.PRN
‘The one who dances has just left.’

In (15) and (16) we see that neither nouns nor verbs that are marked with obviative *-yi* can function as independent clauses.

Whereas proximate *-wa* can form independent clauses, it is banned from appearing on dependent (i.e., subordinate) clauses, as shown below.

- (17) a. Imáát- matt- sootaa **-wa**
NEG- again- rain -PROX
‘It’s not raining anymore.’
- b. Nit- íksstaa
1- want.AI
m- ááhk- saw- matt- sootaa *-hs* *-yi* **(*wa)**
3- MOD- NEG- again- rain - CONJ -OBV
‘I want it to stop raining.’

In (17a), the matrix clause is marked with proximate *-wa*, but in (17b), we see that the same verb forms a subordinate clause but here *-wa* is ungrammatical. Proximate *-wa* cannot appear in dependent clauses. Conversely, just as nominal arguments are marked with the suffix *-yi*, so are clausal arguments. In particular, subordinate conjunct¹⁰ clauses require a morpheme *-yi* whose function has until now been unexplained (cf. Frantz, 1991, 2009). This is true regardless of the verb class and/or theta roles of the conjunct clause; all conjunct clauses are necessarily obviative.

¹⁰ The conjunct is the default subordinate clause type. The other subordinate clause type in Blackfoot is subjunctive, which is also formed with an *-i* ending. Whether this *-i* is in fact the obviative *-yi* (with glide deletion) remains to be seen.

In summary, proximate *-wa* but not obviative *-yi* can be used to form independent (matrix) clauses, and conversely obviative *-yi* but not proximate *-wa* appears on dependent (subordinate) clauses. This is consistent with the following generalization about proximate and obviative nominal expressions: proximate nominal expressions are clause-external adjuncts, not dependent on the clause, whereas obviative ones are arguments, internal to and dependent on the clause. These findings are summarized in Table 2.

Table 2. Proximate/Obviative and Dependency

	Proximate	Obviative
Nominal Expressions	Clause-external adjuncts	Clause-internal arguments
Clauses	Matrix	Subordinate
	Independent	Dependent

Returning to the question of what the lexical entries for proximate and obviative morphemes contain, the data presented in this section suggests that proximate *-wa* and obviative *-yi* make clear syntactic contributions. Proximate *-wa* signals that the phrase it attaches to is banned from being in a dependency relation with a higher phrase. Obviative *-yi*, on the other hand, signals that the phrase it attaches to must appear in a dependency relation with a higher phrase. I propose that these syntactic conditions are encoded in the lexical entries for these morphemes, as follows:

- (18) *-wa* = [-DEPENDENT]
-yi = [+DEPENDENT]

4 Syntax/discourse compatibility

In the preceding section I argued that syntactic dependency (or lack thereof) is encoded in the lexical entries for proximate and obviative morphemes in Blackfoot. In this section I consider whether discourse functions are also encoded in the lexical entries for these morphemes.

4.1 Discourse functions of obviation in Blackfoot

Obviation in Blackfoot has a clear syntactic function. However, it also has discourse function(s) associated with it. For instance, Frantz (1966) describes the proximate designation in Blackfoot as encoding the “major character” in a narrative; it focuses the audience’s attention on that character, and by extension the obviative third persons are less prominent or out of focus. Genee (2009) builds on this, claiming that the proximate designation is used for the “grammaticized topic,” and the obviative designation is used for the non-topic. Genee explicitly distinguishes the Algonquianist use of topicality (e.g., aboutness) from the topic-as-old sense, and asserts that Blackfoot’s proximate/obviative contrast cross-cuts the distinction between discourse-old and

discourse-new referents (see also Bliss, 2005b for Blackfoot, and Reinhart, 1981 for a more general discussion).

To see proximate and obviative assignment in action, consider one particular telling of the traditional story *Katoyissa*.¹¹ The story begins as follows:

- (19) amoksk omahk- Itapii -hki iihpok- aopiimm -yii
 DEM.PL old- Person -REP ACCOMP- live.TA -DIR
 -hk -iaawa Mi o- iss -oaawa -yi
 -REP -3PL DEM 3- sil -3PL -OBV
 ‘An old couple lived with **their son-in-law (OBVIATIVE)**.’

In this first line, the son-in-law is introduced as obviative, as required by the syntax because the noun is possessed by a 3rd person possessor. However, this character soon after switches to proximate, presumably to highlight his salient role as the villain in the story.

- (20) lik- oka’p- Itapii -hk ma nina -wa
 INTENS- bad- Person -REP DEM man -PROX
 ‘**The man (PROXIMATE)** was a very bad person.’

- (21) Mi omahk- ina -y ot- aawa’komo -ok -ihk -ai
 DEM old- man -OBV 3 hunt.for.TA -INV -REP PRN
 iinii
 buffalo
 ‘The old man hunted buffalo for **him (PROXIMATE)**...’

- (22) ki maat- Aikaksiiyo -yii -hk -a
 CONJ NEG- share.TA -dir -REP -PROX
 mi -iksi omahk- itapi -iksi
 DEM -PL old- person -PL
 ‘...but **he (PROXIMATE)** didn’t share with the old couple.’

The story continues with no mention again of the son-in-law. For many lines hereafter, there is no proximate character in the story; all 3rd persons are marked obviative. For economy, only the English translation is given for this section:

- (23) *Their youngest daughter prepared a meal for her people. One day the old man found a blood clot (OBVIATIVE) on the prairie. He quickly hid it, brought it home, and told his wife to heat some water and make*

¹¹ The version of *Katoyissa* presented here is part of a larger collection of narrative texts made available through the *Niitsitapiisini: Our Way of Life* exhibit at the Glenbow Museum. Each story is transcribed in Blackfoot, with English and French translations and an accompanying audio recording. Transcriptions are presented here as in the original texts; the morphological analysis and glossing is my own.

soup with the blood clot. As the water boiled, they heard a crying baby (OBVIATIVE). They looked at the water and they saw a child (OBVIATIVE) there. He (OBVIATIVE) told them to take him out and hold him up to each pole in the lodge. They did so, and he (OBVIATIVE) grew older. He (OBVIATIVE) became a man.

At this point in the story, the blood clot *cum* baby *cum* man is named, and it is at point when this character becomes proximate:

- (24) Annayaok Katoyissa
 DEM.PROX Katoyissa
 ‘His name was **Katoyisa. (PROXIMATE)**’

Once named, Katoyissa is established as the hero of the story; the story continues with Katoyissa performing heroic deeds and remaining proximate throughout:

- (25) *The old couple told him (PROXIMATE) how they were abused by their son-in-law, and two of their daughters, who then Katoyissa killed. When he (PROXIMATE) brought the old couple back to safety, Katoyissa travelled throughout our territory. And he (PROXIMATE) saved our people, who were held captive by evil beings. When Katoyissa (PROXIMATE) finished, our people were no longer prevented from travelling around the land.*

In the conclusion to the story, *Ihtsipaitapiiyio’pa*, the Creator, is mentioned, and is marked as proximate as a way to signal the saliency of this referent. But this does not mean that Katoyissa is demoted to obviative; in the final line of the story, Katoyissa is also proximate, as shown below.

- (26) annomao’k ksaahkoyi Ihtsipaitapiiyio’p -a
 DEM land Creator -PROX
 ihko -kki -wa
 give -INV -PROX
 ‘**The Creator (PROXIMATE)** gave us the land.’
- (27) Katoyisa anohk iit- a- yo’ka -a -ihk
 Katoyissa now LOC- IMPF- sleep -PROX -REP
 om -istsi Katoyiss -iksi
 DEM -PL Katoyissa -PL
 ‘**Katoyisa (PROXIMATE) now sleeps at Sweet Pine Hills.**’

The Katoyissa story provides a good illustration of how proximate and obviative morphology can be used for discourse purposes. Referents that function as the main characters in the story (the villainous son-in-law and the heroic Katoyissa) or are held in high esteem (the Creator) are marked proximate, and more

peripheral characters are marked obviative. Importantly, different stories and different storytellers can manipulate obviation in different ways to change the tone or perspective of the story; whichever referent(s) the storyteller wishes to highlight as central characters can be marked proximate.

I propose that this characterization of the discourse functions of obviation in Blackfoot parallels my observations regarding its syntactic functions. Just as obviative 3rd persons must be syntactically dependent, they must also be dependent at the discourse level: they refer to peripheral characters whose roles in the story are subsidiary to those of the main characters. Conversely, just as proximate 3rd persons cannot be syntactically dependent, they are also not dependent at the discourse level: they are the foundational characters upon which the story is based. This is consistent with Genee's (2009) assertion that proximate marking in Blackfoot is used for topics and obviative marking is used for non-topics. Non-topical material in a sentence is dependent on the topic(s), in the sense that the topic(s) provides the context for interpreting the rest of the sentence (cf. Reinhart, 1981). In short, then, obviatives are dependent on proximates in a discourse. This parallels the syntactic difference between obviative and proximate expressions in Blackfoot: obviative expressions are necessarily dependent (as arguments or subordinate clauses), whereas proximate ones are necessarily not dependent (as clause-external adjuncts or matrix clauses).

4.2 Recruitment

I suggest that that the parallelism observed between proximate and obviative suffixes is not a coincidence, but rather reflects compatibility between the two. How does this type of compatibility effect come about? I propose that the compatibility effect reflects a RECRUITMENT process; the proximate and obviative suffixes encode syntactic dependency relations, but they can be recruited to signal discourse dependency relations. Recruitment of functional items for discourse uses is common cross-linguistically. It is widely discussed in the literature on discourse particles, for example in German (Abraham, 1991, 2001; Bayer, 2012; Bayer and Obenauer, 2011; Diewald, 2011; König and Requardt, 1991). Many discourse particles (e.g., English *just*, German *ja*) are polyfunctional, having both syntactic and discourse functions (cf. Thoma, 2016).¹²

If recruitment were responsible for the discourse functions associated with Blackfoot's proximate and obviative suffixes, then there would be no need for the lexical entries of these suffixes to encode their discourse functions. Rather, I propose that the morphemes are specified for their syntactic properties, and by having these properties, the nominal expressions they appear on are compatible with certain discourse functions. This suggests that a proximate nominal

¹² There is a debate as to whether these items are in fact polyfunctional or distinct (homophonous) lexical items (e.g., Abraham, 2001). I assume the polyfunctional view here.

expression is compatible with a topic function because of its syntactic properties, i.e., because it is syntactically independent. Conversely, an obviative nominal expression is incompatible with a topic function because it is syntactically dependent.¹³ In short, the insight is that dependency relations that operate at the sentence level may play a role in determining dependency relations at the discourse level. (See Quinn, 2006 for a similar proposal for Penobscot.) This view differs from that of Genee's (2009), who proposes that when the topic function is to be assigned to a referent, this triggers the appearance of the proximate morpheme *-wa*. Under the recruitment hypothesis, proximate *-wa* appears on a nominal expression (or clause) in the syntax, and by virtue of being proximate, the nominal expression (or clause) is compatible with a topic discourse function.

An advantage of this proposal is that it situates obviation amongst other grammatical features that have a grounding in ontological or "real-world" classifications, but are fundamentally morphosyntactic in nature, as evidenced by mismatches. For example, we saw that Algonquian animacy is a grammatical category only loosely associated with ontological animacy classifications. A given noun (e.g., *po'táa'tsis* "stove") can be coded as grammatically animate in Blackfoot without referring to a real-world animate individual. This same pattern is observed throughout Algonquian, and is in fact rooted in Proto-Algonquian, in which nouns referring to e.g., tobacco, maize, raspberries (but not strawberries), feathers, and snowshoes are classified as animate (cf. Bloomfield, 1946: 94). There has been discussion that perhaps Algonquian animacy is indeed predictable, but from an Indigenous as opposed to Western conceptualization of what constitutes an animate being. Here I follow Dahlstrom (1995), who adopts a moderate stance, under which there are ontological motivations for animacy assignment, but it is nevertheless not entirely predictable (see also Quinn, 2004). The lack of predictability can be observed in the various ways in which Algonquian languages assign animacy to loanwords and derived nouns. For instance, in Anishnaabemowin, deverbal nouns can be animate or inanimate (Valentine, 2001), but in Arapaho, they are strictly inanimate (Cowell and Moss, 2008). Animacy assignment to loanwords in Delaware does not follow a predictable pattern (O'Meara, 1996), but in Cheyenne, loanwords are assigned animate or inanimate gender based on ontological animacy (Strauss and Brightman, 1982). In short, animacy assignment is not entirely predictable; it is a morphosyntactic feature.

The same can be said for number. Blackfoot nouns such as *Siksiká* or *Piikáni* are singular, but refer to groups of individuals, namely the collective membership of the Siksiká or Piikáni nations, respectively. To refer to an individual member of a group, an additional suffix *-ikoan* is required, as in (28).

¹³ Thank you to an anonymous reviewer for their inquiry about 1st and 2nd person pronouns. These too can be marked proximate or obviative in Blackfoot, and although I have yet to investigate the discourse properties of these pronouns, I hypothesize that they would have the same discourse properties as third person proximate and obviative nominals.

- (28) a. om -wa siksiká -wa
 DEM -PROX siksika -PROX
 ‘Siksiká nation’ (refers to the membership as a whole)
- b. om -wa siksiká **-íkoan** -a
 DEM -PROX siksika **-member** -PROX
 ‘a member of the Siksiká nation’
- c. om -iksi siksiká **-íkoa** -iksi
 DEM -PL siksika **-member** -PL
 ‘members of the Siksiká nation’

Similarly, a singular form is used to refer to one’s ancestors as a collective group. If this form is pluralized, it refers to multiple groups of ancestors (i.e., different peoples’ ancestors). This is shown below.

- (29) om -wa ákaa- itapii -wa
 DEM -PROX PERF- live.AI -PROX
 ‘Our ancestors (those who have lived, as a group)’
- (30) om -iksi ákaa- itapii -iksi
 DEM -PL PERF- live.AI -PL
 ‘Groups of our ancestors’

The existence of these types of mismatches demonstrates that, although grammatical features such as animacy or number can reflect the real-world properties of their referents, these real-world properties are not inherent to the features themselves. The features are morphosyntactic, and the lexical entries for their exponents (the morphemes themselves) reflect their morphosyntactic properties, not their ontological grounding.

I suggest that the same is true for obviation. Obviation is a grammatical feature, which can be used to reflect real-world properties of its referents, i.e., their standing in a discourse, but these real-world discourse properties are not inherent to the feature. Moreover, the same sorts of mismatches between grammatical encoding and real-world properties can be observed with obviation. For example, a noun possessed by a 3rd person possessor is necessarily obviative, but one could imagine a discourse context in which this noun refers to the discourse topic. One such example was presented in the discussion of the Katoyissa story (see 27); the son-in-law was a topic or main character in the story – a villain – but the noun referring to him was initially marked as obviative because of its syntactic role: it was possessed by a 3rd person. We could think of the referent of this noun as being ontologically topical (in this context), but morphosyntactically the noun is marked as obviative. In other words, just as

animacy and number are not straightforwardly predictable based on the ontological properties, neither is obviation. This lack of predictability is a hallmark property of a grammatical feature.

In sum, I have proposed that the discourse functions associated with obviation in Blackfoot – namely the tracking of topics (proximate) and non-topics (obviative) – are not inherent to obviation itself. Rather, obviation is fundamentally syntactic. Moreover, because it encodes syntactic dependency relations, it is eligible to be recruited for encoding discourse dependency relations.

5 Beyond Blackfoot

I now consider what the Blackfoot facts can tell us about obviation cross-linguistically. I begin with a discussion of the types of discourse functions that have been associated with obviation across Algonquian, and then I point to a common thread: namely the coding of discourse dependency relations.

5.1 Variation in discourse functions

There have been numerous studies on the discourse functions of Algonquian obviation systems (e.g., Dahlstrom, 1991, 1996; Genee, 2009; Goddard, 1984, 1990; Hasler, 2002; Mühlbauer, 2008; Russell, 1991, 1996; Thomason, 1995, 2003). A bird’s eye view of these studies reveals that Algonquian obviation does not have a homogeneous function across languages; its discourse properties can vary from language to language and even within languages across different discourse contexts¹⁴. What all Algonquian languages share, to the best of my knowledge, is a morphologically-encoded contrast between multiple 3rd persons, in which a “more salient” 3rd person is coded as proximate (which in many systems is morphologically unmarked; see (2) above) and all other 3rd persons are coded as obviative. Beyond this, however, the ways in which obviation contrasts are deployed for discourse purposes varies across and sometimes within languages. Importantly, my aim here is not to reconcile the various claims about the discourse uses of Algonquian obviation, or to reduce them to a single unitary function. Rather, I survey a sample of claims about the discourse uses of obviation across Algonquian, and point to a common thread that they all share: obviation is associated with discourse dependency.

The idea that the proximate/obviative contrast reflects an independent/dependent contrast in discourse is reflected in Goddard’s (1990) introduction to obviation in Fox (*aka* Meskwaki); he claims that “...if there is only one third person in a context, it can *only* be proximate. Contrasting with the proximate is the obviative, which can be thought of as a *subsidiary* third person” (p. 318, italics are mine). Thus, in Fox, an obviative third person is only licensed in the context of a proximate. This generalization is re-affirmed by Thomason

¹⁴ The idea that obviation varies across different narrative genres and/or discourse contexts has been explored by, e.g., Cook and Mühlbauer (2006) and Thomason (1995).

(2003), who also looks at Meskwaki obviation and concludes that "...obviative inflection always implies the presence of a proximate third person" (p. 203).

In a similar vein, Mühlbauer (2008) looks at the various morphological realizations of the obviative designation in Plains Cree, and argues that they all signal some type of referential dependency on proximate third persons. Mühlbauer shows that an obviative third person may be either structurally dependent on a proximate one, or perspectivally dependent. Regarding the latter case, Mühlbauer argues that, in Plains Cree, proximate third persons are perspective-holders; they possess a perspective with which they can evaluate the truth of a given proposition. Obviative third persons, in contrast, cannot function as perspective holders, and can only exist by virtue of a perspective holder. Others who have argued that the proximate/obviative contrast is cued to perspectival distinctions include Oshima (2007, for a variety of languages) and Russell (1991, for Swampy Cree).

In addition to (or instead of) encoding point-of-view, obviation has also been argued to encode topicality. (This was observed for Blackfoot in Section 4 above.) The definition of "topic" varies; for some researchers, the topic is the constituent that is discourse-old, i.e., referring to something or someone that is already established in the discourse (e.g., Erteschik-Shir, 2007). For others, "topic" is used in the "aboutness" sense; the topic is what (or who) the sentence (and/or the larger discourse) is about (e.g., Reinhart, 1981). The Algonquianist tradition typically assumes this latter definition of topicality, and many have observed that the proximate designation can be used to signal the topic of the discourse. For example, Goddard (1990) tracks proximate shifts in Fox narratives, i.e., places in the discourse when a discourse referent that was not previously coded as proximate becomes proximate, and he claims that proximate shifts correspond with shifts in narrative focus. In other words, the proximate designation focuses the narrative on a particular character, or the "hero of the discourse" (cf. Goddard, 1984). Russell (1996) makes a similar claim for Swampy Cree; he analogizes a narrative to a camera, and argues that the proximate designation corresponds with "what the camera is pointed at" (p. 378).

Some researchers have noted the confluence of both point-of-view and topicality in determining the proximate and obviative designations. For example, Bloomfield (1962: 38) notes that "...the proximate third person represents the topic of discourse, the person nearest the speaker's point of view, or the person earlier spoken of and already known." Dahlstrom (1991, 1996) makes similar claims for Plains Cree and Fox, arguing that the proximate designation can evoke audience empathy or focus the audience's attention on a central character. Hasler (2002) and Thomason (2003) track proximate and obviative assignment across large stretches of discourse in Innu-aimun and Meskwaki respectively, and identify numerous different discourse determinants.

Common amongst the range of discourse functions associated with obviation across and within Algonquian languages is the idea that the proximate third persons are independent within the discourse, and obviative third persons are discourse-dependent. In at least some languages, obviatives are only licensed

in the presence of proximates. Moreover, whereas the proximate designation is used for the perspective holder, protagonist, or main character in the discourse, the obviative designation is used for peripheral participants.

From a formal perspective, this suggests that, just as sentences have hierarchical structure, so perhaps do larger stretches of discourse. By analogy with dependency relations at the sentence level, it seems plausible to think that there are also dependency relations at the discourse level, and this would allow us to model the observation that, at least in some systems, obviative third persons are licensed in a discourse only in the presence of a proximate third person.¹⁵ In short, there is an analog between syntactic dependency and discourse dependency.

5.2 The common thread: in/dependence

In the preceding section, I proposed that the common thread that obviation systems across Algonquian share is that they draw a distinction between third persons that are independent versus dependent in discourse. Notably, in all of the languages the correspondence between proximate/obviative morphology and discourse functions is as in (31); no language has a correspondence like that in (32), in which obviative morphology is used with functions that can be characterized as independent.

(31)	Proximate	→	Independent in Discourse (Topic, Protagonist, Perspective-Holder)
	Obviative	→	Dependent in Discourse
(32)	Proximate	↘	Independent in Discourse (Topic, Protagonist, Perspective-Holder)
	Obviative	↗	Dependent in Discourse

What can this tell us about the syntax of obviation across Algonquian? In the preceding section, I proposed that proximate and obviative suffixes in Blackfoot are not lexically encoded for discourse functions, but rather take on discourse functions that are compatible with syntactic functions, i.e., syntactic dependency relations are compatible with discourse dependency relations. Extending this to Algonquian more generally, we might expect that, in at least some other Algonquian languages, discourse dependency should have a syntactic correlate.

Importantly, this does not mean that obviation across Algonquian should have the same syntactic properties as it does in Blackfoot. Just as the discourse functions associated with obviation across Algonquian vary, we also expect syntactic functions to vary. For example, in some systems obviation is cued to

¹⁵ The question of how to formally model discourse dependency relations is well beyond the scope of this paper, but one possibility (employed by Mühlbauer, 2008 in his analysis of dependencies in Plains Cree) is Discourse Representation Theory (Kamp, 1981).

topicality, whereas in others it is cued to perspectival notions. These two types of systems may encode different types of syntactic dependencies, and in comparing Blackfoot (which is cued to topic) and Plains Cree (which is cued to perspective), this appears to be the case. Whereas in Blackfoot, proximate marking can index referents that are clearly not perspective holders (e.g., inanimate referents or clauses), in Plains Cree proximate nominal expressions are necessarily perspective-holders (cf. Mühlbauer, 2008).

Moreover, it is conceivable that a range of different syntactic functions could be compatible with a single discourse function. In Blackfoot, the syntactic contrast that characterizes obviation determines whether a nominal expression can appear inside a clause (obviative) or not (proximate). However, in Passamaquoddy, obviation also encodes syntactic dependency, but in a different way. Bruening (2001, 2009) analogizes proximate marking to nominative case and obviative to accusative case. Under a dependent case model of the nominative/accusative opposition (e.g., Marantz, 1991, McFadden, 2004), accusative case is licensed in the presence of nominative case; it is dependent. As such, Passamaquoddy's obviation system encodes syntactic dependency just like Blackfoot, but in a different way.

To give another example, Quinn (2006) argues that obviation in Penobscot encodes a morphosyntactic dependency, arguing that the relationship of a proximate noun to an obviative noun is parallel of that a speaker to an addressee, or a speech act participant (SAP) to a non-SAP. All three of these relations he characterizes as “core-periphery relations,” with the peripheral members standing in a relative dependency relation to the core members. In other words, obviative nouns are peripheral to, or dependent on, proximates, in the sense that they rely on proximates for their definition and existence. Similarly, an addressee is defined by virtue of a speaker, and a non-SAP is defined by the presence of a SAP. These types of dependencies don't operate at the clausal level, as do those in Blackfoot or Passamaquoddy, but at the abstract level of the organization of grammar.¹⁶ Both are fundamentally syntactic.

In sum, I have proposed that discourse functions associated with Algonquian obviation may arise via recruitment of functional items and that only functional items that are compatible with a discourse function can be recruited. I suggest that this model may allow us to make certain predictions regarding the syntax of obviation in Algonquian. The prediction is not that the syntax of obviation will be invariant across Algonquian, but rather that in the other Algonquian languages, the proximate/obviative contrast will encode a syntactic in/dependence contrast of some sort. This prediction seems to be borne out for Passamaquoddy and Penobscot; how it extends to the rest of Algonquian remains to be seen.

¹⁶ Rhodes (1976: 199) makes a similar claim for Ojibwa (*aka* Anishnaabemowin), stating that obviatives are “syntactically derived from” proximates.

6 Conclusions

In this paper, I have proposed a resolution to the tension between syntactic and discourse-based approaches to Algonquian obviation by examining in detail the properties of obviation Blackfoot. I demonstrated that obviation in Blackfoot is crucially syntactic: it is used to distinguish between nominal expressions and clauses that cannot be syntactically dependent (proximate) from those that must be (obviative). Furthermore, I have shown that that these syntactic dependency relations are paralleled in discourse. Just as proximate expressions are necessarily independent in syntax, they are also necessarily independent in discourse, referring to the foundational character(s). Conversely, just as obviative expressions are necessarily dependent in syntax, they are also necessarily dependent in discourse, referring to peripheral characters. I have argued that these discourse properties needn't be encoded directly in the lexical entries of proximate and obviative morphemes, but rather that their discourse properties arise because of their syntax.

Although Blackfoot is often considered the “black sheep” of the Algonquian language family, having separated from Proto-Algonquian earlier than its kin (cf. Goddard, 2015), its obviation system can inform our understanding of obviation across the family. Because Blackfoot obviation exhibits such a clear parallelism between syntax and discourse, the prediction is that this parallelism will manifest in other languages as well. Obviation across Algonquian is associated with the encoding of discourse dependency relations, and I propose that underlyingly, it encodes syntactic dependency relations as well. This may vary from language to language, but points of similarity to focus on include syntactic constraints that all languages share and that are not explained under a discourse-based model, such as the requirement that nouns possessed by a 3rd person be obviative.

In short, obviation is a morphological device for marking dependency relations. This observation de-exoticizes obviation, as the coding of dependencies is a fundamental property of natural languages. Moreover, it makes sense that Algonquian languages, which are richly polysynthetic and characterized by free word order and extensive null anaphora, would have dedicated markers of dependency relations, as these often obscured by their typological profile.

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The numeral classifier in Upper Necaxa Totonac: Unitization and lexical specification

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The literature on the semantic contribution of the classifier to the numeral classifier construction is vast and fairly divided. Some views maintain that numeral classifier constructions semantically modify the head noun and contribute to the construction of meaning. In particular, the numeral classifier provides a unit for measuring or counting the noun that lack semantic properties needed for enumeration. Other views imply that the classifier in numeral constructions agrees with some inherent feature of the noun and serves purely formal or grammatical functions. Rather than adding to the meaning of the lexical noun, they categorize the set of nouns in a language into different classes. Numerals in Upper Necaxa Totonac are obligatorily prefixed with a classifier in counting under 20 (Beck 2011). Data from Upper Necaxa show that while some classifiers in classifier-numeral expressions serve important pragmatic and semantic functions, the system in general is lexically specified, satisfying purely formal or grammatical properties of the language.

Keywords: Totonacan; numeral classifiers; lexical specification; unitization

1 Introduction

Numeral classifiers are morphemes that obligatorily appear with numerals or quantifiers in the context of counting or quantifying. The numeral classifier construction is exemplified in (1) from Upper Necaxa Totonac (UNT), which shows the classifier *cha:'-* for ‘humans’ obligatorily prefixed to the numeral *-tin* ‘one’ in combination with the lexical noun *a'hlá'ha'* ‘quetzal dancer.’

- (1) *cha:'-* *tin* *a'hlá'ha'*
 CLF:HUMAN- *one* *quetzal.dancer*
 ‘a Quetzal dancer’

There are many views on the semantic contribution of the classifier morpheme to the classifier construction. One of the first analyses of the function and semantic contribution of numeral classifiers comes from Greenberg's (1972) seminal work on the typology of numeral classifier constructions. Greenberg maintained that numeral classifiers in combination with mass and collective nouns function as

unit-counters; they provide a unit for counting the noun because mass or collective nouns lack the semantic features necessary for enumeration. Greenberg's view is here referred to as *classic unitization* and exemplified in (2) where the classifier *kilha'k-* for 'loads,' or more specifically, 'horseloads' combines with the noun *ki'wi'* 'tree' or 'wood.'

- (2) *kilha'k-* *tin* *ki'wi'*
 CLF:LOAD- *one* *tree/wood*
 'one load of wood'

The classifier *kilha'k-* used to count 'loads' in UNT may combine with certain nouns which may have a mass or collective reading, like *ki'wi'* 'tree' or 'wood' in (2). The classifier in the construction provides a unit for counting the noun which otherwise lacks this specific unit for measuring it.

More recent analyses of the semantic contribution of numeral classifiers to the noun phrase (NP) are found in Lucy (1992, 1996, 1997, 2000, 2014 & 2015), Lucy & Gaskins (2001), Senft (2000), Borer (2005) and others; these authors have taken Greenberg's classic view of numeral classifiers as unit-counters and extended it to make claims about the cognitive status of the noun in numeral classifier languages in general. Borer (2005) describes nouns in classifier languages as concept nouns similar in meaning to 'banana-ness' or 'banana-hood.' Lucy's view, here I term the *neo-unitization* view, claims, for example, that the Yucatec noun *háas* 'banana' in (3a–b) is a genotype or substance noun that means something like 'banana-type' or 'banana-substance' (Lucy, 1992, p. 329). For these authors, the numeral classifier, or unitizer, contributes toward the construction of reference by specifying discrete properties of a lexical noun that lacks these features.

- (3) a. 'un– *tz'íit* *háas*
 one– *CLF:1DIMENSIONAL* *banana*
 'the banana fruit'
- b. 'un– *wáal* *háas*
 one– *CLF:2DIMENSIONAL* *banana*
 'the banana leaf'

According to Lucy, Yucatec nouns are vague resembling a genotype, so the numeral classifier is required by the lexical semantics of the noun for unitization. The analysis implies that the noun *háas* 'banana' lacks definite features or discrete properties. The numeral classifier or unitizer for one-dimensional objects *-tz'íit* in (3a) and the classifier for two-dimensional objects *-wáal* in (3b) contributes the unit for counting the noun, which is otherwise understood as a genotype noun by speakers of Yucatec.

Other authors such as Allan (1977), Denny (1984), and Aikhenvald (2006) have suggested that the classifier in numeral classifier constructions reflects an

inherent property of the lexical noun and serves purely formal or grammatical functions. Under this view, the classifier is seen more as semantically redundant, as opposed to a semantically rich morpheme. A numeral classifier expression where the classifier seems not to contribute any semantic information to the construction and only serves purely grammatical functions is exemplified in UNT in (4).

- (4) *cha:'-* *tin* *ni:n*
 CLF:HUMAN- *one* *dead.person*
 ‘one dead person’

The classifier *cha:'-* for ‘humans’ is obligatorily selected to match the semantic property of the human noun *ni:n* ‘dead person’. The human classifier does not contribute new information to the noun phrase but rather agrees or reflects an inherent property of the lexical noun.

Upper Necaxa Totonac is part of the Northern branch of the Totonacan language family spoken in Puebla State, Mexico. In order to explore the semantic contribution of the classifier morpheme to the numeral classifier construction in UNT, we constructed a database of over 900 numeral classifier phrases and sentences in context, and examined over 2000 dictionary entries from the *Upper Necaxa Totonac Dictionary* (Beck 2011) detailing nouns and the classifier used to count them. Uncited Totonac data are drawn from the lexical database for the Upper Necaxa Totonac Project compiled by David Beck. The data show that the classifier can semantically contribute to the construction of reference, along the lines proposed by Greenberg (1972), but the system, in general, is lexically specified—that is, a formal or grammatical property of the language. Since UNT nouns are fully-specified in semantic terms, only mass or count nouns in combination with classifiers that reflect properties of the noun contingent on context provide a unit for constructing reference, while count nouns with classifiers that reflect inherent properties of the referent demonstrate a more obligatory agreement relationship with the noun. Further, fully specified nouns in classifier languages, like UNT, challenge the neo-unitization view, since it could only be sustained if nouns in classifier languages *always* appear in a classifier construction since their lexical semantics require unitization. In the discussion below, we present three distinct views on the semantic contribution of the classifier morpheme to the noun phrase (§2). We then show that while some classifiers construct reference and unitize the NP similar to Greenberg’s classic view, the system in general is a grammatical property of the language (§3).

2 Three views on the semantic contribution of the classifier morpheme to the NP

There are several views in the literature on the semantic contribution of numeral classifiers to the noun phrase (NP). In section 2.1, we explore Greenberg’s (1972) analysis of classifiers as unit-counters—the classic unitization view, which

suggests that unitization is a property of mass and collective nouns. In section 2.2, we look at Lucy’s analysis (from 1992 to 2015), the neo-unitization view, which claims that the classifier morpheme specifies discrete properties of a noun that is unspecified for any discrete features. In section 2.3, we explore what we call the lexical specification view—namely, the view supported by Aikhenvald (from 1998 to 2010) that the classifier in numeral expressions merely reflects or selects some inherent semantic feature of the noun, and may therefore be better described as serving a more grammatical function in the language.

2.1 Greenberg’s classic unitization view

One of the first and most influential works on the function of numeral classifiers was Greenberg’s (1972) typological study of 100 numeral classifier languages. Greenberg claims that classifiers categorize the head noun into semantic classes, but he further observes that in combination with mass and collective nouns, the classifier provides a unit for counting the noun similar to the way nouns like ‘cup,’ or ‘cratefuls’ provide a unit for counting certain nouns in English. Greenberg names classifiers that participate in unit-counting *unit-counters*. This construction was later analyzed by Lucy as a morpho-syntactic process called *unitization*, and the classifier morpheme was considered a ‘phrasal modifier’ and labeled a *unitizer* part of a *unitizer construction* (Lucy, 1992, p. 73, & 1996, p. 59). Greenberg’s view that some classifiers are unit-counters, or unitizers, is here referred to as the *classic unitization* view. The view entails that unit-counting occurs with nouns that cannot enter into a direct construction with a numeral, as in English phrases like **one oil* vs. *one liter of oil*, and **one cattle* vs. *one head of cattle*, or nouns which require an intervening measure term for the purposes of counting—for example *three pears* vs. *three baskets of pears*. The hypothesis depends on nouns to make mass, collective, and singulative distinctions, which he demonstrates with the examples in (5a–c), where a variety of classifiers are compatible with the same noun *bùri* ‘cigarette’ in Thai (Greenberg, 1972, p. 10).

- (5) a. *bùri* *sǎŋ* *səŋ*
cigarette *two* *CLF:PACK*
‘two packs of cigarettes’
- b. *bùri* *sǎŋ* *lǒ*
cigarette *two* *CLF:DOZEN*
‘two dozen cigarettes’
- c. *bùri* *sǎŋ* *muan*
cigarette *two* *CLF:LONG-OBJECT*
‘two cigarettes’

According to Greenberg, in Thai the noun *bùri* ‘cigarette’ in combination with the classifier *səŋ* ‘packs’ in (5a) and *lǒ* ‘dozen’ in (5b) forces the collective

reading of the noun, which requires a unit for measuring or counting the noun when it refers to a group or collection of entities. In (5c), the classifier *muan* for long objects highlights an inherent property of the noun *bùrì* and does not participate in unit-counting *per se*. For Greenberg, the difference between constructions that unitize or do not is concerned with the semantic nature of the head noun; in one case, the result of adding the numeral classifier is an NP referring to a group of entities as in (5a–b), which if divided in two would result in two smaller groups of entities. However, adding the classifier in (5c) results in an NP referring to individual entities, in this case cigarettes, which if divided in two would result in broken a cigarette. In classic unitization, only nouns with collective and mass readings unitize, while count nouns with singulative readings do not.

Greenberg’s claim implies that, in context, nouns are not lacking in semantic features necessary of adequate reference, and therefore are not vague, i.e. they are not genotype or concept-like nouns. Rather, his view implies that nouns are fully specified lexical items that do not lack the semantic features necessary for reference. This implication is in stark contrast with Lucy’s neo-unitization view described in section (2.2). The distinction between classic unitization and neo-unitization is mostly about the semantic nature of the head noun, which may often be a result of the linguist’s translation of the noun as discussed in section (3.2).

2.2 The neo-unitization view

Classic unitization is reanalyzed in Lucy (1992), Lucy & Gaskins (2001), and extends into Lucy’s work in (2014 & 2015), where the notion of unit-counting is extended to make claims about the nature of nouns in classifier languages. Lucy holds that nouns in classifier languages are unspecified for the property of discreteness, and are better described as genotype nouns. This view implies that nouns, such as *bùrì* ‘cigarettes’ in Thai shown in (5a–c) are type or substance nouns, which therefore mean something like ‘tobacco’ or ‘cigarette-type.’ The numeral classifier (*muan* ‘long-object’, *lǒ* ‘pack’, or *sɔŋ* ‘dozen’) is then required by the noun for unitization. To support this view, Lucy presents the examples from Yucatec Maya in (6a–e), which demonstrates that changing the classifier in each example alters the meaning of the whole NP and constructs different referents (Lucy, 1992, p. 74).

- | | | | | |
|-----|----|----------------------|---------------------------|-----------------------|
| (6) | a. | 'un–
<i>one</i> – | tz'it
CLF:1DIMENSIONAL | háas
<i>banana</i> |
| | | | | ‘the banana fruit’ |
| | b. | 'un–
<i>one</i> – | wáal
CLF:2DIMENSIONAL | háas
<i>banana</i> |
| | | | | ‘the banana leaf’ |

- c. 'un- kúul háas
one- CLF:PLANTED banana
 'the banana plant/tree'
- d. 'un- kúuch háas
one- CLF:LOAD banana
 'a bunch of banana'
- e. 'un- p'iit háas
one- CLF:BIT banana
 'a bit of banana'

In Yucatec Maya, a variety of classifier morphemes distinguish between the various ways the noun *háas* 'banana' could be interpreted by highlighting or specifying the form of the lexical referent for the 'fruit' in (6a) 'leaf' in (6b), 'plant' in (6c), 'bunch' in (6d), or 'bit' in (6e). The neo-unitization view means that speakers of Yucatec understand nouns, like *há'as* 'banana', as indicating the referent's type or substance, and the classifier indicates its individuation status, its unit, or its quantity. Lucy then extends his analysis to the examples in (7a–e) to argue that these phrases are also unitizer plus genotype noun constructions (Lucy 2000, p. 329).

- (7) a. 'un- tz'íit kib'
one- CLF:IDIMENSIONAL wax
 'a candle'
- b. 'un- tz'íit che'
one- CLF:IDIMENSIONAL wood
 'a stick'
- c. 'un- tz'íit nal
one- CLF:IDIMENSIONAL corn
 'an ear of corn'
- d. 'un- tz'íit háas
one- CLF:IDIMENSIONAL banana
 'a banana fruit'

Lucy claims that each noun, *kib'* 'wax,' *che'* 'wood,' *nal* 'corn,' and *háas* 'banana' in (7a–d) is understood by Yucatec speakers as making vague reference to a non-discrete entity which requires the classifier for unitization. For all noun types in the examples, the numeral classifier unitizes the non-discrete noun by specifying the form or unit of the referent to construct things like a candle, stick, ear of corn, or the banana fruit.

The neo-unitization view holds that numeral classifiers are required by the lexical semantics of vague or genotype nouns because the noun lacks adequate specification of the units needed for enumeration. In the strong sense, the view implies that *all* nouns in classifier languages are vague by having something like only one, polysemous, lexical entry in the mental lexicon. In the weaker sense, only those nouns that are defined as lacking a discrete feature are vague and require the classifier for unitization. Lucy's evidence is that the noun 'banana' in Yucatec may appear with a variety of classifiers, and therefore must be interpreted as [-discrete] by speakers for unitization to take place; otherwise, Lucy's unitization analysis does not apply. That Lucy's view is more about the polysemy, or vagueness, of nouns rather than a theory on the function of numeral classifiers is also found in Lehmann (2008, p. 3). On the other hand, Greenberg's view implies that nouns are fully-specified lexical items that are homophonous, this term being neutral as to whether the homophony is accidental or related. The homophonous nouns are therefore merely ambiguous outside of context but represent distinct, and fully specified entries, in the mental lexicon.

2.3 Lexically specified classifiers: Sortals and mensurals

For Lucy and the neo-unitization view, the classifier unitizes the NP construction by contributing a discrete feature to an inherently non-discrete noun. Other authors, like Allan (1977), Denny (1984), Aikhenvald & Green (1998), and Aikhenvald (2000, 2006, & 2012) hold that numeral classifiers do not unitize in Lucy's neo-unitization sense at all. Instead, these authors argue that classifiers are grammatical items that reflect some property of the lexical referent. In particular, Aikhenvald's (2006) typological study of over 500 classifier languages maintains that classifiers are like grammatical items that function as categorization devices. The classifiers group nouns into classes that are loosely semantic, but have some degree of arbitrary or lexicalized membership. Specifically for numeral classifiers, Aikhenvald distinguishes sortal and mensural classifiers. Sortal classifiers are those that pick out an inherent, or what Aikhenvald calls a "permanent," property of the noun. Typical sortal classifiers include those which are used with nouns referring to animate entities, like human or animal, or which reflect intrinsic physical properties of the noun, like its dimensionality, shape, form, or consistency. The examples in (23) and (24) from Palikur, a North Arawak language, demonstrate that the classifier is correlated with some inherent property of the referent noun (Aikhenvald & Green 1998, p. 445).

- (8) a. nah ka- daha -ni paha -kti pilatno
1SG ATT- for -PO one -CLF:PLANT banana
 'I have one banana plant.'

- b. ba pis muwakha ax paha -t
INTER *2SG* *want* *eat* *one* *CLF:VERTICAL*
 ‘Do you want to eat one (banana) fruit?’

The noun *pilatno* in Palikur refers to two distinct referents; in (8a) *pilatno* refers to the banana plant, and in (8b) the elided noun recovered by context refers to the fruit. The ‘plant’ classifier *-kti* in (8a) may help disambiguate the noun by clarifying for the addressee that the noun *pilatno* belongs to the category of ‘plants’. The classifier *-t* for ‘vertical objects’ in (8b) is chosen based on the inherent properties of the elided nominal referent, the banana fruit. The classifier in this view might help disambiguate a homophonous noun by highlighting the category that the noun already belongs to, but it does not contribute new information to the noun phrase. The classifier may help clarify the referent that the noun *pilatno* refers to in the same way context helps disambiguate *pilatno* ‘banana fruit’ in (8b). While it may seem like the speaker has a choice in classifier morpheme, *-kti* for the ‘plant’ or *-t* for the ‘fruit,’ this choice seems to be a result of the ambiguous glossing of the noun *pilatno*. If the noun *pilatno* were more specifically glossed as ‘banana plant’ in (8a) and ‘banana fruit’ in (8b), the obligatory semantic relation between classifier and noun would be more apparent. Seen in this light, this obligatory agreement between noun and classifier construction is lexically specified.

The other type of numeral classifier Aikhenvald distinguishes is the mensural classifier, a classifier that functions in the same way as Greenberg’s unit-counters or unitizers. The choice of mensural classifier is determined by properties of the noun that are contingent on context, or what Aikhenvald refers to as “temporary” qualities of the noun, such as its quantity, measure, or physical arrangement, like bunches, groups, handfuls, and rows. These classifiers are used for measuring units of both count and mass nouns, the choice of classifier dictated by the unit of counting as demonstrated in (9a) and (9b) in Palikur (Aikhenvald & Green 1998, p. 444).

- (9) a. paha -bru upayan
 one *-CLF:GROUP* *duck*
 ‘one flock of ducks’
- b. paha -uku -wa kumat
 one *-CLF:HAND* *-EMPH* *beans*
 ‘one handful of beans’

The mensural classifiers in (9a–b) can be said to unitize the construction by suggesting a plurality of entities that are in a particular arrangement, like a group or handful. The classifier does not agree or pick out a property inherent to the noun since being in the arrangement of a group or handful is not in the meaning of the word *upayan* ‘duck’ or *kumat* ‘beans.’ Rather, the classifier specifies a unit of ducks or beans that is contingent on the context and therefore contributes to

the meaning of the noun phrase. Since mensural classifiers select contingent, or temporary, properties of the noun, speakers may have an option in the choice of classifier, but the choice of classifier is still dictated by contingent properties of the referent.

Though it seems that there may be more freedom in the choice of mensural classifier, these classifiers may also demonstrate strict lexical specification and still be semantically contributive to the NP. Lexically specified mensural classifiers are seen in more conventional numeral expressions, expressions that have been traditionally or socio-culturally constructed, and now represent a fixed phrase. Aikhenvald (2000) exemplifies strict specification with the mensural classifier *mal* in Korean, which is used exclusively to measure rice wine in terms of an institutionalized measuring cup, as in (10) (Aikhenvald 2000, p. 115).

- (10) makkeli han mal
 rice.wine *one* *CLF:RICE.WINE*
 ‘one measure of makkeli (rice wine)’

The mensural classifier *mal* in (10) helps unitize the construction by providing a unit for measuring rice wine. At the same time, the classifier *mal* is the only classifier that can be used for this purpose. The numeral NP construction is a lexicalized expression used conventionally by Korean speakers. Though the classifier does unitize by providing a means of counting servings of the drink, the choice of mensural classifier is conditioned by some contingent (i.e. its place in some kind of container, its measure, or quantity) or inherent (i.e. its liquid form) physical property of the referent. The mensural classifier demonstrates that lexically specified classifiers are also culturally specific functional morphemes that may be accounted for by socio-cultural conventions and traditions.

3 Properties of numeral-classifiers in Upper Necaxa Totonac

Upper Necaxa Totonac (UNT), part of the Totonacan language family, is spoken by about 3,400 speakers in four villages around the Necaxa River Valley in the Sierra Norte of Puebla State, Mexico. Numerals in Upper Necaxa are obligatorily prefixed with a classifier in counting under 20; greater numbers optionally take a classifier (Beck 2011 & 2004). Numeral classifiers in Upper Necaxa divide the set of nouns in the language into roughly 34 disjunct classes (Appendix A). Each noun occurs with one lexically-specified classifier, though nouns compatible with mensural classifiers may appear with more than one lexically-specified classifier. The semantic categories of the classifier system are fairly typical of numeral classifiers. They may function as *sortals*, which include classes such as type of living being (humans, animals, plants), shape, dimension, and form, and *mensurals*, which may include classes contingent on the configuration (roll, handful, container) or arrangement (bunches, rows, loads).

- (11) a. la'ha- tu' chichí'
 CLF:ANIMAL- two dog
 'two dogs'
- b. hen- lhú:wa' puchí' -ni'
 CLF:LONG.THIN- many rotten.log -PL
 'many rotten logs'
- c. pa:- tín refresco
 CLF:CONTAINER- one soft.drink
 'one pop'
- d. tzan- kaujtú' i'x- li:né'he'
 CLF:ROLL- twelve 3PO- leaves
 'twelve rolls of leaves'
- e. ma'h- kitzís ó:raj
 CLF:TIME- five hour
 'five o'clock'

The sortal classifier *la'ha-* in (11a) reflects that the nominal is an animal, and in (11b) the classifier *hen-* functions as a sortal with nouns that are 'long' and 'thin'. The classifier *pa:-* in (11c) is mensural when used with liquids or substances to designate container-like objects such as bottles, cups, or baskets, similar to the mensural classifier *tzan-* in (11d) used to measure things that are tied into rolls. Finally, the classifier *ma'h-* in (11e) appears with nouns that express time as measured by the clock.

Numeral classifiers may also serve as anaphoric devices, as is common in many languages, exemplified in (12a–b).

- (12) a. i'k- ka:- pu:lhe'hé -lh kin- kawa:yúj
 ISG.SUB- PL.OBJ- count -PFV IPO- horse
 he: a:- la'ha- tín sput -a
 and ADD- CLF:ANIMAL- one finish -IMPF
 'I counted my horses and one (horse) is missing.'
- b. lhenhlnhlnh ta- ta:ya: -nan -lh
 IDPH 3PL.SUB- stand -ST.PL -PFV
 i'x- li:ká:n -kañ i'x- helha- tá:'ti' -ka'n
 3PO- rifle -PL.PO 3PO- CLF:HUMAN- four -PL.PO
 'The four of them carried their rifles.'

In (12a), the classifier construction *a:la'hatín* 'one animal' makes anaphoric reference to *kawa:yúj* 'horse'. The classifier construction in (12b) is also used

anaphorically in a very specific construction that means something like ‘group of N people’.

Some classifiers appear not only in enumerative constructions, but can also appear in adverbial expressions. For instance, the numeral classifier with *ma'h-* may appear with a nominal to express time as shown in (11e), but *ma'h-* plus a numeral without a noun may also be used in adverbial expressions of time as in (13).

- (13) *ma'h-* *tu'* *i'k-* *wa'yan* *-ya:* *-uj*
 CLF:TIME- *two* *ISG.SUB-* *eat* *-IMPF* *-1PL.SUB*
 chi' *tinta'kú:'j*
 how *all.day*
 ‘We eat twice during the day.’

The classifier expression *ma'htú'*, meaning something like ‘twice’ in English, modifies the event and is used adverbially, which demonstrates that these classifiers have other functions other than specifying the number of nominal referents.

Additionally, the numeral classifier prefix *laka-* appears with a numeral but without nominal complements and conventionally designates locations, as in (14a–b).

- (14) a. *tza'má* *ju:n* *laka-* *tin* *ta:yá*
 that *hummingbird* *CLF:PLACE-* *one* *stand*
 hos *-nun* *-ta:yá*
 fly *-DTRN* *-stand*
 ‘The hummingbird hovers in place.’
- b. *laka-* *tin* *laka-* *tin* *ta-* *laka-* *a'n*
 CLF:PLACE- *one* *CLF:PLACE-* *one* *3PL.SUB-* *face* *- go*
 ta- *ta-* *la'haspi't* *ya:* *-nan* *-lh*
 3PL.SUB- *DCS-* *face.turn* *stand* *-ST.PL* *-PFV*
 ‘They look here and there, they are looking around.’

The numeral classifier construction *lakatín* is an expression of static location which means ‘in one place’ in (14a), and may be used idiomatically as part of a construction meaning something like ‘here and there’, demonstrated in (14b).

In addition to classifiers playing a variety of syntactic roles, they may also be used in pragmatically marked ways, which demonstrates that there is some flexibility in the system. For instance, classifier constructions may further be manipulated for rhetorical purposes, as in (15) where the speaker chooses the classifier *tan-* for ‘animals’ to make a disparaging remark about the human referent:

- (15) lhú:wa' nak= Chicontla tza'j
many *LOC=* *Chicontla* *only*
 tan– tojón kristiánu' chin –lh
CLF:ANIMAL– *seven* *person* *arrive.here* –*PFV*
 ‘Those seven bloody Chicontecos arrived at Chicontla.’

The expression in (15) is rather unusual since it uses the animal, rather than human, classifier, but it demonstrates that there is some degree of freedom in the classifier system for rhetorical and metaphorical purposes that, at times, is constrained by the semantic properties of the head noun, but not entirely restrained by it. Becker (1986) demonstrates in Burmese, that the classifier system is functionally and semantically complex in ways that are constrained by the language inextricably linked to the social and cultural context of the construction. In similar ways, the classifier system in UNT serves important discourse functions, which may be manipulated for rhetorical purposes and other pragmatic effects that contribute semantically to the NP expression, but in many ways form idiosyncratic, and conventionalized expressions.

Although there is some flexibility in the classifier system, close examination of the UNT data show that the system is in general lexically specified, and that classifiers in their ordinary uses are a formal property of the grammar. In section (3.1), we will show how the classifier system in UNT is lexically specified, even when classifier constructions participate in Greenberg-style classic unitization. We further show that a semantically additive analysis of classifiers is very much compatible with the view of lexical specification. Finally in section (3.2), we will show that classifiers cannot be said to construct reference in Lucy's sense, because nouns in UNT are not interpreted as having no specific meaning outside of the classifier construction, but are rather fully specified in semantic terms. Fully specified nouns in classifier languages challenge the neo-unitization view that the noun requires the classifier to construct reference, and demonstrates that the neo-unitization view is the result of a misanalysis of the noun.

3.1 Lexical specification in Upper Necaxa Totonac

Aikhenvald holds that numeral classifiers are grammatical morphemes that may have sortal or mensural functions, an observation recently acknowledged by Lucy (2015). In this section, we provide further evidence for lexical specification and the disambiguating role of classifiers in distinguishing between two homophonous, but distinct, nouns using data from Upper Necaxa Totonac. The lexical specification view implies that the classifier does not contribute semantic specification to an unspecified noun, but rather some nouns are ambiguous between a variety of lexical referents outside of context, which may therefore lead the linguist to mis-translate an ambiguous lexical noun as being a vague or polysemous one as discussed in section (3.2).

Classifiers that function as sortals provide clear examples where the classifier morpheme does not contribute semantic specification to the meaning of the noun and is best described as being lexically specified. Sortal classifiers include those that are predictable based on the inherent shape of the nominal complement, as in (16a–b), where the classifier morpheme is selected obligatorily in agreement with a semantic property of the noun.

- (16) a. *pe'h-* *tin* *lhta'ká'la'*
 CLF:FLAT.THIN- *one* *board*
 ‘one board’
- b. *pa:-* *tin* *a'kchukút*
 CLF:CONTAINER- *one* *gourd*
 ‘one gourd’

The nouns in these examples are not unspecified for some semantic feature, which require the classifier to construct reference. That the classifier agrees with some property of these nouns, and does not contribute semantically to the expression is demonstrated in (17a–b) where the nouns appear outside the classifier phrase and make adequate reference.

- (17) a. *kalhta'há'* *-j* *chú'ku'* *lhta'ká'la'*
 flat *-ADV* *cut* *board*
 ‘Cut the board thick!’
- b. *a'kchukút* *wi:lh* *tu:* *tan-* *há'ha'*
 gourd *sit* *REL* *bottom-* *big*
 ‘There are certain gourds that are larger at the bottom’

In (17a–b) the nouns *lhta'ká'la'* ‘board’ and *a'kchukút* ‘gourd’ appear without the numeral classifier construction and make adequate non-ambiguous reference. In fact, *all* nouns in UNT may appear outside the classifier phrase and make adequate reference, and the classifier is only necessary if the speaker wants to explicitly specify the number of entities. Therefore, the classifier *pe'h-* ‘long/thin’ functions as a sortal classifier in the construction in (16a) as does *pa:-* ‘container’ in (16b), both of which are fairly predictable based on the semantic properties of the head noun, and demonstrate that the classifier is in some kind of agreement relation with this noun. This agreement between classifier and noun in these constructions is obligatory; the speaker has no say in the choice of classifier: if the speaker needs to count boards, they must use *pe'h-*, and to count gourds, they must use *pa:-*. Changing the classifier in the expressions in (16a–b) does not result in a change of reference, but may result in an ungrammatical or pragmatically marked expression.

Typical sortal classifiers also include those which go with animate nouns, like those denoting humans, animals, or plants. Even though these classifiers are

more predictable based on the semantic properties of the noun, they may still participate in idiosyncratic lexicalized constructions. For example, in UNT, the classifier *cha:'* is used for counting one to three people as in (18a), and the classifier *helha-* is used in constructions for counting more than three humans as in (18b).

- (18) a. *cha:'*– *tín* *chi'xkú'*
 CLF:HUMAN– *one* *man*
 ‘one man’
- b. *helha-* *tá:'ti'* *chi'xkú'*
 CLF:HUMAN– *four* *man*
 ‘four men’

The requirement that the classifier *cha:'* in (18a) be used for counting three people or fewer and the use of *helha-* in (18b) for 3 people or more is an obvious case of lexical-specification—that is, it requires the speaker to make an arbitrary, idiosyncratic choice of classifier based on number of referents that is specific to lexical items denoting human beings. A similar idiosyncrasy is seen in the sortal classifier for animal referents. The classifier *la'ha-* is used for counting one animal, whereas the classifier *tan-* is used for counting two or more animals. These types of lexically specified constructions further demonstrate a property of the language one would just need to learn.

Other lexically specified classifiers are seen in constructions where classifiers are selected in a semi-arbitrary manner that are not predictable from their semantic or physical properties. For example, the human classifier *cha:'* is used for counting chili fruits, as in (19a), and the animal classifier *la'ha-* is used for counting muscles as in (19b).

- (19) a. *cha:'*– *tin* *pi'n*
 CLF:HUMAN– *one* *chili.fruit*
 ‘one chili fruit’
- b. *la'ha-* *tin* *skauj*
 CLF:ANIMAL– *one* *muscle*
 ‘one muscle’

The choice of classifier in (19a–b) is not predictable since the classifier *cha:'* typically appears with human nouns, and the classifier *la'ha-* typically appears with nouns referring to animals. The speaker has no choice in classifier morpheme when counting individual chili fruits or a person’s muscles, and the classifier cannot construct reference since, for example, there is nothing human about the chili fruit in the phrase. Furthermore, outside of enumeration, these nouns do not require the classifier construction. Thus, the construction is merely a lexically specified, conventionalized way of counting these nouns.

Another argument for lexically specified classifiers is the presence of a generic, or default, classifier, a common feature of many languages with classifiers. The generic classifier is *a'h-* in UNT and it is used for classifying things that might not fit in other classes. Example (20) demonstrates that the noun *libro* ‘book’ appears with the generic *a'h-* classifier, rather than one of the more semantically appropriate classifiers like *pe'h-*, the classifier for flat-thin things that is selected by nouns such as papers, letters, documents, and notebooks.

- (20) i'k- li:- helh- tawahá: wi:lh
 ISG.SUB- *INST-* *mouth-* *practice* *sit*
 a'h- tin libro
 CLF:DEFAULT- *one* *book*
 ‘I’m sitting reading one book’

In (20), the noun *libro* ‘book’ selects the default (or generic) classifier *a'h-*, rather than some other more predictable classifier. The example demonstrates that it would be difficult to claim that the classifier contributes some semantic specification to an unspecified noun, since the generic classifier is not associated with any particular semantic property. Most human artifacts take the default classifier *a'h-* rather than the expected classifier based on the object’s shape or form, which further demonstrates that the classifier does not participate in unitization but is lexically specified.

To further the lexical specification analysis, even mensural classifiers in UNT can be shown to be lexically selected. For example, the classifier *helh-*, grammaticalized from the noun *hélhni* ‘inner mouth,’ commonly appears with nouns referring to dates and age, but also mushrooms, pork rinds, and certain flowers. The classifier is also used as a unitizer with the noun *kiní:t* ‘meat’ in (21).

- (21) puská:t lak- tzi'li -ma:lh
 woman *INTNS-* *fry* *-PROG*
 helh- tin kiní:t
 CLF:UNEVEN.SURFACE- *one* *meat*
 ‘The woman is frying a piece of meat.’

The numeral classifier with *helh-* in (21) is the only way, and the conventional way, to count pieces of meat in UNT. The choice of classifier is not predictable from the meaning of the noun it modifies, since *helh-* is typically used with nouns that refer to dates and time and is not used to count other pieces of foods, for the exception of pork rinds and mushrooms. The classifier is selected in a semi-arbitrary manner that is not semantically predictable, but is rather idiosyncratic and conventionalized. That the noun *kiní:t* is fully specified and does not require the classifier for making reference is demonstrated in (22).

- (22) ja: tzey tza'má kiní:t ja: ká'ni'
 not *good* *that* *meat* *not* *delicious*
 ‘This meat is no good, it doesn’t taste good’.

The noun *kiní:t* ‘meat’ appears without the classifier construction and makes discrete reference, and therefore, the noun cannot be analyzed as requiring the classifier for semantic specification. The classifier construction is only required when the speaker specifies the number of referents, in which case the choice of classifier is already lexically specified for the construction.

While even mensural classifiers plus noun constructions show strict lexical specification, some classifiers in UNT do participate in unitization in the classic Greenbergian sense. While Greenberg missed out on the sortal versus mensural distinction, he did correctly observe that nouns combined with mensural classifiers contribute a unit necessary for counting the noun, and that speakers may seem to have some choice in classifier construction. In UNT, classifiers that function as sortals merely agree with a semantic property of the lexical referent as in (23a), while mensural classifiers in combination with count nouns seem to force a collective reading of the NP as in (23b) and (23c).

- (23) a. pu:lak- tin pi'n
 CLF:PLANT- *one* *chili.plant*
 ‘one chili plant’
- b. ma'hxpa:- tin pi'n
 CLF:ARMFUL- *one* *chili.plant*
 ‘one armful of chili plants’
- c. tzan- tin pi'n
 CLF:ROLL- *one* *chili.plant*
 ‘one roll of chili plants’

The sortal classifier *pu:lak-* in (23a) with the noun *pi'n* ‘chili plant’ demonstrates strict lexical specification since the classifier contributes no new information to the noun phrase, but merely agrees with some inherent property of the noun. The mensural classifiers in (23b–c) select a property of the noun that is contingent on the context and not inherent to the meaning of the head noun. There is nothing inherent in the meaning of *pi'n* ‘chili plant’ which is specified for whether it is in a configuration of the amount that one can hold in their arms or tied up into rolls. In (23b) the classifier *ma'hxpa:-* functions as a mensural classifier because it selects a property of the referent, namely a measure equivalent to an armful, that is contingent on the context of utterance. The classifier may also be used to measure an armful of other things, like fodder, plants, and sticks, but cannot be used to measure an armful of say chili fruits or seeds. Similarly, the mensural classifier *tzan-* in (23c) is used to count rolls or bundles of chili plants, as well as other things like onions or flowers tied at narrow points under their heads, or fans

made out of bunches of branches, but the classifier can not be used for measures of the chili fruit or seeds. In this way, the classifier helps unitize the construction, but the specific classifier used is constrained by the (inherent and contingent) semantic features of the head noun. The classifier constructions in (23b–c) demonstrate classic unitization, in that a change of classifier with the same noun results in a collective reading of the noun and in a change of referent. While there is some freedom in choice of classifier in these constructions, the choice is still constrained by the lexico-semantic properties of the noun and conventionally specified by the language. They are therefore to some degree lexically-specified.

The data further show that some classifier morphemes may have other functions that go beyond Aikhenvald's two-way (sortal or mensural) classification, and Greenbergian unitization. For example, the classifier *pe'h-* which functions as a sortal classifier with nouns that are relatively flat and thin, as was demonstrated in (16), may also appear with plant nouns to refer to the leaf as in (24a), while the plant classifier *pu:lak-* is specified for the plant in (24b).

- (24) a. *pe'h-* *tín* *skukú:jnu'*
 CLF:FLAT/THIN- *one* *skukú:jnu'.plant*
 ‘one *skukú:jnu* leaf’
- b. *pu:lak-* *tín* *skukú:jnu'*
 CLF:PLANT- *one* *skukú:jnu'.plant*
 ‘one *skukú:jnu* plant’

In (24a), the classifier *pe'h-* appears with *skukú:jnu'* to make reference to the leaf, and in (24b) the sortal classifier *pu:lak-* for ‘plant’ is lexically specified for the plant with *skukú:jnu'* ‘*skukú:jnu* plant’. In fact, the classifier *pe'h-* commonly appears with words for leafy plants in constructions that refer to the leaf. In this case, the classifier *pe'h-* is lexically specified for ‘leaf’ by which sub-part of the plant is being counted. The classifier *pe'h-* in combination with nouns that refer to leafy plants has been lexicalized to make reference to the leaf.

This function of *pe'h-* is also seen in examples with nouns that refer to books and reading materials, demonstrated by comparing (25a–b).

- (25) a. *pe'h-* *tín* *li:helhtawá'ha'*
 CLF:FLAT/THIN- *one* *reading.material/book*
 ‘a page’
- b. *a'h-* *tín* *li:helhtawá'ha'*
 CLF:DEFAULT- *one* *reading.material/book*
 ‘a book’

The noun *li:helhtawá'ha'* in these two examples is a homophonous noun that refers only to books, magazines, or even very thin pamphlets, but cannot be used to refer to a single page. The classifier *pe'h-* in (25a) in combination with nouns

that refer to books, or reading material, is only used to count the pages. The classifier helps construct the referent by picking out a sub-part of the book, or by selecting the pages of the reading material, but the construction is lexically specified for the ‘page’; the speaker has no other option in choice of classifier. The classifier *pe'h-* in some constructions, then, is semantically additive and helps to construct reference, but does not unitize the way mensurals do, rather it selects a sub-part inherent to the noun for which it is lexically specified. In (25b), the generic classifier *a'h-* is lexically specified for counting the book as a whole. While the generic classifier may help disambiguate reference by picking out the book as a referent rather than some other type of reading material, it does not contribute semantic specification to the meaning of the noun, since it is not connected with any particular semantic property. The examples further demonstrate that the classifier is a conventionalized expression that has been lexicalized by the language, which shows that the lexical specification view is also compatible with a view of semantically additive classifiers.

3.2 Neo-unitization: a misanalysis

We have seen that classifiers in UNT exhibit lexical specification. The lexical specification view, however, is in stark contrast with Lucy’s neo-unitization view that classifiers semantically modify the meaning of the noun in ways that construct the referent. For Lucy, classifiers are required by the lexico-semantic properties of the noun because nouns are vague or unspecified for discrete features. However, *all* nouns in UNT are actually fully specified in context and it is only nouns combined with classifiers that function like mensurals that participate in unitization. We will show how nouns in UNT are fully specified in semantic terms and how the neo-unitization view is the result of misanalyzing homophonous nouns as being vague. Since nouns in UNT have specific meaning outside of the classifier construction, Lucy cannot claim that the lexico-semantic properties of these nouns require the classifier for unitization. We will also show that while the classifier may help disambiguate between homophonous nouns, context may also serve the same purpose.

Like Yucatec Maya, Upper Necaxa Totonac allows a variety of classifiers to appear with the same lexical noun to make reference to distinct entities in (26a–c):

- (26) a. pa:– tin kapéj
 CLF:CONTAINER– one coffee.liquid
 ‘one cup of coffee’
- b. pu:lak– tin kapéj
 CLF:PLANT– one coffee.plant
 ‘one coffee plant’

- c. a'h- tin kapéj
 CLF:ROUND- one coffee.bean
 'one coffee bean'

For Lucy, the noun *kapéj* 'coffee' in (26a–c) would be stored in the mental lexicon as 'coffee-type' for speakers of Totonac and therefore in each case requires unitization. However, accurate glossing of these nouns now makes it apparent that the classifier unitizes the noun in (26a), which denotes a liquid, and agrees with the physical properties of the lexical referents in (26b) and (26c). Now it becomes more apparent that the 'plant' and 'round' classifier do not contribute to the meaning of the NP the same way the 'container' classifier contributes to meaning of the liquid or drink.

Evidence for the claim that *kapéj* is fully specified and unambiguous in context is found in sentences where the noun *kapéj* appears outside of quantification and still results in adequate reference to the plant or bean, such as those in (27a–c):

- (27) a. na- i'k- lak- ma:pi: kin- kapéj
 FUT- ISG.SUB- INTNS- lay.out IPO- coffee
 xti'kát na- i'k- ska:k -a
 petate FUT- ISG.SUB- dry -IMPF
 'I'm going to lay out my coffee (beans) on a sleeping mat, I'm going to dry it.'
- b. na- i'k- x'etí kin- kapéj
 FUT- ISG.SUB- crush IPO- coffee
 xa- pe'h- tin na- wan
 DTV- CLF- one FUT- be
 'I'm going to pulp my coffee (berries), there will be clean beans.'
- c. i'x- ta- skuj -ut -ka'n tza'má
 3PO- DCS- work -NM -PL.PO that
 chi'xkú' -win ta- cha'n kapéj
 man -PL 3PL.SUB- plant coffee
 'The work of the men is to plant coffee (plants).'

The examples in UNT demonstrate that in the absence of the classifier, unambiguous, adequate reference is made to the 'coffee bean' in (27a), the 'coffee berry' in (27b), and the 'coffee plant' in (27c). The noun *kapéj* may be ambiguous outside of context, but the examples in (27a–c) demonstrate that *kapéj* is a fully specified noun whose referent is recovered or disambiguated in context.

Further evidence that bare nouns in UNT are fully specified is seen in the different ways in which the noun *ki'wi'* 'tree' is used in context. The noun *ki'wi'* 'tree' may also appear with a variety of classifiers as seen in (28a–c):

- (28) a. pu:lak- tin kí'wi'
 CLF:PLANT- one tree
 ‘one plant’
- b. hen- tin kí'wi'
 CLF:LONG.THIN- one stick
 ‘one stick’
- c. kilha'k- tin kí'wi'
 CLF:LOAD- one wood
 ‘one load of wood’

In each example, *kí'wi'* ‘tree’ appears with a different classifier and refers to a distinct object, and would be better glossed as ‘tree’ in (28a), ‘stick’ in (28b), and ‘wood’ in (28c). That these nominals are in fact fully specified outside the numeral classifier construction and still make adequate reference is demonstrated by sentences such as that in (29) where *kíwi'* refers to a ‘stick’ tied with a balloon at one end. We would expect the classifier *hen-* for long/thin things to appear if the nominal required unitization, but the speaker relies on context instead.

- (29) tzáma bómba chi- waka -káni'
 that *balloon* *tie-* *up.high* *-BEN*
 nak= i'x- hósni' kí'wi'
 LOC= 3PO- *tip* *stick*
 ‘The balloon is tied to the tip of the stick.’

Lexical reference is disambiguated by the context of the sentence in (29). For one thing, the speaker used the locative phrase *naki'xhósni'* ‘on its tip’ because only *kí'wi'* ‘stick’ has a tip. If the speaker were referring to a balloon tied to the tip of a tree, they would refer to the tree's top as *i'xa'kpú:n* ‘its top’. These differences in collocational distributions further indicate that *kí'wi'* ‘tree’ and *kí'wi'* ‘stick’ are different words.

In cases of ambiguity, the classifier may help disambiguate lexical reference but cannot be said to construct it. For example, the sentences in (30a–c) were responses to the question ‘where is the tree?’ using the Topological Relations Picture Series (Bowerman & Pederson 1992) stimulus number 01, a picture of a tree next to a church. The first speaker chose to use the classifier *pu:lak-* for plants in (30a), which may potentially disambiguate the reference of *kí'wi'* had the context been ambiguous. However, the other two speakers did not use the classifier for disambiguation but relied on the context instead in (30b–c).

- (30) a. i'x- paxtún pusikwalán ya:lh
 3PO- side church stand
 pu:lak- tín há'lha' kí'wi'
 CLF:PLANT- one big tree
 'Next to the church stands one big tree.'
- b. i'x- paxtún pusikwalán yá:lh há'lha' kí'wi'
 3PO- side church stand big tree
 'Next to the church stands a big tree.'
- c. i'x- paxtún pusikwalán ya:lh kí'wi'
 3PO- side church stand tree
 'Next to the church stands a tree.'

Outside of context, the referent of the noun *kí'wi'* in (30b–c) is ambiguous since the verb *ya:lh* could potentially apply to a stick if it were leaning up against the side of the church, or planted upright in the ground. The speakers, however, relied on the context for the purpose of disambiguation and did not need to use the numeral classifier for constructing adequate reference.

Even though the classifier may be used for disambiguation, it is not necessary since context may serve the same purpose. Further evidence in (31a–b) demonstrate that the different nouns *kí'wi'* have distinct semantic distributional patterns, which is evidence that these nouns are in fact distinct, and that outside the classifier construction, they make adequate, non-ambiguous, reference.

- (31) a. ta- li:- he:nú: -ya: -nan -lh
 3PL.SUB- INST- lean stand -ST.PL -PFV
 lak- hawá'cha'n xa- ta- lak- chú'ku'
 PL- boy: PL DTV- DCS- INTNS- chop:NM
 kí'wi'
 firewood
 'The boys are leaning against (the load of) chopped firewood.'
- b. a'kxní na- chin tza'má tapa'hsi:nín
 when FUT- arrive.here that Patla.festival
 chi' i'x- le'h -tu' ma:lhkuyúh
 how 3PO- CLF:TIME -two moon
 ta- pu'tzá xa- pu:la'h -lho'hó:' -ho'
 3PL.SUB- look.for DTV- inside- perforated -ADJ
 kí'wi'
 log
 'When it's two months before Carnival, they look for a hollow log.'

In (31a), the noun *kí'wi'* refers to 'firewood' where the unit of measurement or configuration of the noun is implicit, and where the context and the noun

xatalakchú'ku' ‘chopped’ contributes toward disambiguation, the same way the classifier could have disambiguated the referent. The noun *ki'wi'* also appears without the classifier construction and makes specific reference to a ‘log’ in (31b), where context and the noun *xapu:la'hllho'hó:'ho'* ‘hollow inside’ help disambiguate the various meanings of the noun *ki'wi'*. Similarly, (32a–b) demonstrate that the various nouns *ki'wi'* have distinct morpho-syntactic patterns showing that they are different nouns.

- (32) a. ka:ná: wilé'hllh –wa' stá'k –li' kí'wi'
truly twisted –SEM grow –PFV tree
‘The tree grew very twisted’
- b. a'h– tin chik i'x– la kí'wi'
CLF:DEFAULT– one house PST– do wood
‘A house made of wood’

In (32a), the noun *ki'wi'* refers to ‘tree’ and the verb *stá'kli'* ‘grew’ indicates that the noun is alive. Similarly, *ki'wi'* appears without the classifier construction and makes specific reference to ‘wood’ in (32b), where in the absence of the numeral classifier, the noun still makes adequate reference. The examples demonstrate that nouns in Upper Necaxa are fully specified, and do not require the classifier morpheme for unitization in constructing adequate reference, since context seems to disambiguate ambiguous reference the same way the classifier might. Furthermore, the examples show that the distinct nouns that *ki'wi'* refers to have different morphosyntactic distributional patterns, demonstrating that they are in fact different nouns. The classifier numeral is not required by the lexical semantics of the noun as Lucy states, and nouns in UNT are indeed fully specified in semantic terms. We, therefore, should use more accurate lexicographic representations of these nouns.

4 Conclusion

The data from Upper Necaxa Totonac challenge Lucy’s neo-unitization view that nouns in numeral classifier languages are in some sense lacking in discrete properties by being vague, genotypes, or prototypes. Since most nouns in UNT are fully specified lexical items that appear outside of the numeral classifier construction, Lucy cannot conclude that classifiers are required by the lexical semantics of the noun. The view could only be sustained if these nouns *always* appear in a classifier construction since their lexical semantics require unitization. We demonstrated that the neo-unitization view of nouns results from misanalysing an ambiguous noun as being vague. If this analysis is true for Upper Necaxa, then it may well be true for other languages, including Yucatec where nouns do not always appear within the numeral classifier construction either (Lucy 1992 & 2014), or when nouns are counted with numerals of Spanish origin, an observation also noted by Lehmann (2008).

Although we have shown that the classifier system in Upper Necaxa Totonac is largely lexically specified, that does not mean the system is semantically empty. Classifiers that function like sortals are strictly lexically specified by demonstrating obligatory agreement with an inherent semantic property of the noun, and never semantically adds to the meaning of the noun. Mensural classifiers select properties of the noun that are contingent on context and may help construct and unitize the expression, but they also form constructions that are specified by semantic properties of the referent noun, and constructions that have been conventionalized in practical and social/cultural ways where the speaker does not have a choice in classifier construction. Classifiers may also help disambiguate homophonous sets of nouns if context is not enough, which demonstrates that there is some kind of dependent relationship between the classifier and noun, and that speakers cannot freely chose the classifier for the construction it appears in. Additionally, numeral classifiers may serve other pragmatic and rhetorical functions that are rather unusual and pragmatically marked, which demonstrates that there is some flexibility in the system that, at times, is constrained by the semantic properties of the head noun, but not entirely restrained by it. For these reasons, the classifier system in Upper Necaxa Totonac, in general, is lexically specified. The analysis also implies that a view of lexically specified classifiers is compatible with a system of classifiers that are semantically additive and demonstrate unitization in the classic sense.

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Appendix A

Classifier	Source Noun	Body-part origin	Prototypical semantic extension
<i>a'h-</i>	<i>a'han</i>	head	default; round objects
<i>cha:-</i>	<i>cha:n</i>	shin	human (1-3 persons); chilies, seeds
<i>helha-</i>	-	-	human (3+ persons)
<i>la'ha-</i>	<i>lakán</i>	face	animal (1-2 animals)
<i>tan-</i>	<i>táni'</i>	buttocks	animal (2+ animals)
<i>pu:lak-</i>	<i>pu:-lákni'</i>	vagina-leg	plants
<i>he:-</i>	<i>he:n</i>	back	upright bulky/cylindrical
<i>hen-</i>	<i>hé'ni'</i>	penis	long/thin
<i>pe'h-</i>	<i>pé'hni'</i>	branch	flat/thin
<i>a'kpu:-</i>	<i>a'kpú:n</i>	crown of head	upper surface
<i>mak-</i>	<i>makni'</i>	body	bulky hefty things
<i>he:sti-</i>	<i>he:-sti:n</i>	back-long/thin	bunch-plant
<i>kilhmak-</i>	<i>kilh-mak-</i>	mouth-body	small bunch
<i>mus-</i>	-	-	full bunch
<i>pix-</i>	<i>pixni'</i>	neck	roll/bunch
<i>tzan-</i>	<i>tzani'</i>	thick end	roll/bundle/bunch
<i>ma'xhpa:-</i>	-	-	armfuls
<i>tu:-</i>	-	-	price
<i>tapa:-</i>	<i>ta:pá:n</i>	side of the body	loads/armfuls
<i>helh-</i>	<i>hélhni'</i>	inner mouth	uneven irregular surface
<i>laka-</i>	<i>lakán</i>	face	places, locations
<i>a'k-</i>	<i>a'hxa:h</i>	head	outer covering; clothes
<i>pu:-</i>	<i>pu:n</i>	vagina	garments; clothes
<i>pa:-</i>	<i>pa:n</i>	belly	containers
<i>ho'x-</i>	-	-	money
<i>ma'h-</i>	-	-	time
<i>le'h-</i>	-	-	dates
<i>hempa-</i>	-	-	time/ type

Addressing Indigenous language loss by unsettling the linguistic hierarchies entrenched in Canada's language policies

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This article aims to contribute to the discussion about language policy in Canada and to provide policy makers and the general public with a broad historical and social context in which to situate these policies. As is widely known, Canada's Indigenous languages are critically endangered, which has detrimental consequences for Indigenous communities. As a result, Indigenous communities and the Canadian federal government have both been working towards solutions to the challenge of Indigenous language loss. In this paper it will be argued that there are linguistic hierarchies entrenched in Canada's language policies which result in social, cultural, and economic inequities between different language groups; that these inequities are issues of rights that need to be addressed according to Canada's national and international commitments; and that the proposed policy solutions for addressing Indigenous language loss would be most effective if they reflected an unsettling of these linguistic hierarchies.

Keywords: Indigenous; language loss; language policies; hierarchies; language rights; policy planning

1 Introduction

The widespread language loss experienced by Indigenous communities in Canada has devastating effects for Indigenous peoples, as language is essential to cultural heritage and identity. Therefore, the Truth and Reconciliation Commission of Canada (TRC) asserts that the critical status of Canada's Indigenous languages needs to be addressed as a crucial part of the reconciliation process. Both Indigenous communities themselves and the Canadian federal government have recognized the need to address the issue of language loss and are working diligently to address this. Many Indigenous communities are implementing language revitalization projects to preserve their languages and to increase the numbers of speakers. In solidarity with this goal, the J. Trudeau government announced its commitment '[...] to implementing all 94 calls to action' of the TRC, including the Language and Culture sub-section which calls for acknowledging Aboriginal language rights and enacting an Aboriginal languages Act (Mas, 2015; TRC, 2015, p. 6). In December 2016, prime minister Justin

Trudeau indicated the sincerity of this promise at a special assembly of Indigenous leaders by announcing his plans to introduce an *Indigenous Languages Act* ‘in hopes of preserving and revitalizing First Nations, Metis and Inuit languages in Canada’ (Staff, 2016).

There is a wealth of cultural diversity in Canada that we have not yet managed to fully embrace. Ry Moran, the director of the National Centre for Truth and Reconciliation, emphasizes that for successful language revitalization ‘[...] we need a country that realizes we are collectively richer when we understand our national identity not just in terms of two official languages, but as a country full of rich languages that have existed here long before Canada was even dreamed of’ (Moran, 2016). At this pivotal moment when the federal government drafts the details of its *Indigenous Languages Act*, exploring a broader historical perspective can help achieve the truly multicultural and multilingual national identity that is necessary to address Indigenous language loss in Canada.

I will argue that there are linguistic hierarchies entrenched in Canada’s language policies which result in social, cultural, and economic inequities between different language groups; that these inequities are issues of rights that need to be addressed according to Canada’s national and international commitments; and that the proposed policy solutions would be most effective if they reflected an unsettling of these linguistic hierarchies. My goal is neither to provide recommendations for how Indigenous communities themselves might address the growing concern of language loss, nor to suggest that funds currently allocated to providing French language resources and services should be reduced and given to Indigenous languages. I simply intend to provide a wider context for policy makers and the general Canadian public that may be useful in coming to respectful and meaningful solutions.

First, this article will demonstrate the social, cultural, and economic effects of the linguistic hierarchies in Canada’s language policies on French as a non-dominant official language, on non-Indigenous non-official settler languages, and on the Indigenous languages of Canada. The consequences for policy will then be discussed in terms of language rights, linguistic human rights, international and national commitments and constitutional issues, and practical considerations for language policy planning and implementation will be suggested. It will be concluded that in planning legislation to satisfy the TRC’s Calls to Action, it would be helpful to consider the relations between Indigenous languages and the other non-dominant languages of Canada and to decolonize and break down the linguistic hierarchies in place in order to prevent further gaps between policy and reality.

2 Linguistic Hierarchies in Canada's Language Policies

2.1 Preliminary context

Although Canada is officially a bilingual and multicultural country, the language policies implemented to achieve this identity are rooted in colonial hierarchies resulting in financial and cultural inequities for the minority Francophone population, the so-called 'immigrant' groups, and the Indigenous peoples of Canada in relation to the dominant Anglophone white settler population. The long-standing and continued existence of these inequities suggests the need for widespread language policy reforms associated with multilingualism and multiculturalism in Canada. Linguistic hierarchies in Canada's language policies currently institutionalize the majority settler languages English and French as official languages while the multicultural policy 'renders the language resources that newcomers bring with them simply a cultural trait' and the Constitution fails to mention Indigenous language rights (Haque, 2010, p. 293).

As a former colony country where primarily white European settlers have become the dominant population, Canada has a long history of conflict and oppression. Through examination of the history of Canada's Bilingualism and Multiculturalism Acts, it becomes clear that the current language policies are rooted in linguistic and racial hierarchies that privilege English and French over non-Indigenous non-official languages and Indigenous languages and that value English most of all in reality despite institutional equality of the two official languages. These linguistic hierarchies result from the misleading categorization of different groups both in policy and in mainstream society. For instance, the common categorization of 'immigrant languages' in opposition to Canada's official languages is problematic because it erases the fact that English and French are also immigrant languages to these lands. Furthermore, Snelgrove et al. (2014) argue that any non-Indigenous person living on appropriated land is a settler. Therefore, while '[...] not all settlers are created equal', immigrants are complicit in settlement, making them settlers along with descendants of English and French colonizers (Snelgrove et al., 2014, pp. 6, 13-15).

Pearson (2002) claims that the problematic category of Canadian 'immigrants' is the product of the interconnected processes of aboriginalization, ethnification, and indigenization. Firstly, the process of aboriginalization denotes the relationship between Indigenous minorities coexisting with the majority who established a settler state in their ancestral lands (Pearson, 2002, pp. 1000-1001). In this sense, aboriginalization defines Indigenous people *in relation to* the settler state in order to explore how Indigenous social orders can function within these settler states (Pearson, 2002, p. 1006). Secondly, the process of ethnification applies to migrants who experience stigma because of the perception of their cultures and/or appearances as distinct from the majority settler population. This involves the categorization of 'others' by the majority settler group where various ethnic groups become forcefully conglomerated as a single entity with one label such as 'immigrant'. Throughout this process, '[...] "ethnic markers, real or

imagined”, ignore the possibility that generations of persons so categorized, may be born within the society of settlement’ (Pearson, 2002, p. 1002). As a result, permanent residents and locally born citizens who have assimilated to the majority culture are still categorized as ‘immigrants’ and are therefore treated as outsiders. (Pearson, 2002, p. 1001). Finally, the indigenization of majority settlers occurs when members of this group see themselves as a separate category that is ‘[...] neither ‘Native’ nor exotic’ (Pearson, 2002, p. 1004). Through this process, majority settlers come to identify themselves as Canadians rather than as Europeans, indigenizing themselves to the land by making it their home and by creating a new lineage and identity for themselves (Pearson, 2002, p. 1006).

These processes of the ethnification of ‘immigrants’ and the indigenization of the majority settler groups result in the categories in the Royal Commission on Bilingualism and Biculturalism (1963-1969) (RCBB) of majority settlers as ‘founding nations’ of Canada and other settlers as ‘immigrants’. These misleading categories are complicit in the perpetuation of what Haque and Patrick (2015) would call racialized linguistic hierarchies. Haque and Patrick (2015) speak of racialized linguistic hierarchies because of the RCBB’s exclusion of ‘heritage and indigenous languages from Canada’s linguistic ordering and its ‘founding peoples’ discourse’ and because of the asymmetry in the Canadian state’s treatment of Indigenous languages as compared with its treatment of English and French (Haque & Patrick, 2015, p. 38). They argue that language and culture policies have been used to address the Canadian state’s concerns respecting national unity and ‘have functioned to manage racial difference through processes of erasure, forced assimilation and exclusion’ (Haque & Patrick, 2015, p. 27). For instance, it was their categorization as ‘other ethnic groups’ that allowed ‘immigrants’ to be placed on the peripheries of the ‘founding nations’, in contrast to their status as co-settlers in reality. Once ‘immigrants’ were categorized as ‘other ethnic groups’, despite their collective label, it was claimed that their ‘[...] diversity atomized and hence negated their opinions’ thereby excluding their suggestions from the Commission (Haque, 2010, p. 271).

It is clear that the categories currently employed in policy and mainstream society are problematic. Pearson (2002) argues that ‘[t]here is no neutral language one can draw upon to describe and analyse aboriginal, immigrant and settler citizenship patterns, since these names are both a political construct and cultural artefact’ (p. 1000). However, since it has been demonstrated that the label of ‘immigrant’ is misleading and continues to perpetuate linguistic hierarchies, it will not be used in this paper except where it occurs in quotations from other authors. I will use the term *official languages* to refer to English and French and will call Anglophone and Francophone Canadian citizens who are descendants of white Europeans *majority settler populations*. The terms *other settlers* or *non-majority settlers* will be used rather than ‘immigrants’ and I will call the languages spoken by these groups *non-Indigenous non-official languages*. In using these terms, I hope to be transparent about the fact that French, English, and non-Indigenous non-official languages are all settler

languages which occupy different hierarchical positions above Indigenous languages within Canada's language policies. Furthermore, I have deliberately structured this section in terms of this hierarchy by ordering my discussion of each category of language group beginning from the highest hierarchical position to the lowest. This was done to show how the effects on language groups are dependent on their level in the linguistic hierarchies entrenched in Canada's language policies.

Furthermore, while this article focuses mainly on one main linguistic hierarchy in Canada's language policies with English at the top followed by French, then non-Indigenous non-official languages, and Indigenous languages at the very bottom, I am using the plural term 'hierarchies' in order to recognize the need for intersectionality in this work. For instance, studies show that there are further racialized linguistic hierarchies between non-Indigenous non-official languages where speakers of Western European languages in Canada are less likely to feel negative economic impacts than are speakers of other non-Indigenous non-official languages (Pendakur & Pendakur, 2002, p. 167). It is probable that there are also further hierarchies between Indigenous languages where larger and more influential communities receive more funding and media attention for language revitalization projects than do smaller communities. While this level of specificity is beyond the scope of this paper, it is important to take into account the added complexity of these sub-hierarchies when working towards unsettling the main linguistic hierarchy in Canada's language policies.

These institutionalized hierarchies, along with gaps between official policies and reality, result in economic disadvantages and language loss for minority groups in Canada. These common themes of historical conflict, policy hierarchies, and the resulting inequities will be examined below in order to illustrate the connected contexts for language policy planning for French, non-Indigenous non-official languages, and the Indigenous languages of Canada. I will argue that in aiming to improve the status of Canada's Indigenous languages, or of any of Canada's non-dominant languages, it is crucial to unsettle the linguistic hierarchies that connect and rank them. To this end, I will explore how the recurrent themes of linguistic and racial hierarchies in legislation, a long history of conflict and oppression, and gaps between official policies and reality are reflected in the contexts of French as a non-dominant official settler language of Canada, non-Indigenous non-official languages of Canada, and Indigenous languages of Canada. My goal is to illustrate connections between language groups and between the various legal instruments that impact them as a first step towards understanding the linguistic hierarchies in Canada.

2.2 French as a non-dominant official settler language in Canada

The tensions between 'the two solitudes' have a long history, as the linguistic conflicts in Canada and their resulting language policies '[...]' are intertwined with the rise of French and English as world languages and especially with almost a millennium of intermittent conflicts and accommodations between

France and England' (Mackey, 2010, p. 18). These European rivalries continued during and after the settling of North America, where linguistic distinctions did not line up with provincial boundaries. This led to the need for accommodation of minorities in every province of Canada. Often, this need for accommodation caused tension between the majority settler groups. For example, French settlers were originally the dominant settler majority in Western Canada before they were eventually outnumbered by English settlers. This meant that English settlers begrudgingly '[...] had to accommodate them, not because of any understanding of an historical French-English compact, but simply because of their numbers and their precedence' (Mackey, 2010, p. 30). These sorts of tensions entrenched a deep hostility between the Francophone and Anglophone populations of Canada (Mackey, 2010, p. 29). This historical context of conflict is important because it has resulted in further struggles which laid the foundation for Canada's current language policies. These include the very low representation of the Francophone population in federal government and public service in the 1930s and 1940s, the controversy surrounding the forced participation of French Canadians in the Second World War, and the dominance of commerce in Quebec by the English-speaking minority before the Quiet Revolution (Mackey, 2010, p. 30-31).

Additionally, considering the connection between the strong French Canadian desire to preserve the French language in Canada and the Quebecois sovereignty movement may assist in thinking about how to strike a balance between Canadian national unity along with regional cultural identities, multiculturalism, and multilingualism. Firstly, the Royal Commission on Bilingualism and Biculturalism (1963-1969), which created the *Official Languages Act* (1969), was initiated in response to a crisis in Canadian national unity as Quebecois nationalism grew stronger (Haque & Patrick, 2015, p. 30). It is also significant to note the role of language and cultural identity in the platform of The Parti Québécois. The linguistic agenda of the party is evident from its historic implementation of *Bill 101: The Charter of the French Language* with 213 articles of language legislation, which include making French the sole official language of Quebec (Mackey, 2010, pp. 36-39). Furthermore, the no vote against Quebecois independence in the 1980 referendum consisted largely of English-speaking citizens and allophone communities, demonstrating the strong link between the sovereignty movement and the French language (Mackey, 2010, p. 38). The strong proportion of Quebec's population that voted for independence (49.89%) in the 1995 referendum suggests that the current federal and provincial language legislation is not sufficiently balancing Canadian national unity with the regional cultural identity of Quebec, nor with ideas of multiculturalism and multilingualism. May (2014) claims that in such situations, implementing group-differentiated rights, where rights and group identity are defined by who wants to claim them and where the approach is graduated, can produce successful language legislation that is also better received by the broader society (pp. 268-269). His case study of the linguistic legislation in the autonomous region of Catalonia in Spain could therefore be a useful model for Canadian policy planners.

In addition to this long history of conflict between English and French Canada, French is valued less than English in Canada's complex set of linguistic hierarchies. Although the *Official Languages Act* institutionalizes French and English as equal and aims to preserve their vitality equitably, there are gaps between official policy and reality that result in language loss and economic disadvantage for French Canadians. For example, as a minority group outside of Quebec, Ontario, and New Brunswick, Francophones in the rest of Canada experience first language loss as their use of the French language has been declining steadily since 1991 (Ignace & Ignace, 2008, p. 429). This leads to feelings of loss and frustration due to limited access to their language, culture, and identity (Iqbal, 2005, pp. 310-313). French activities and resources for Francophones are often scarce and can be difficult to access, to the point where '[f]orty-three percent of francophones living outside Quebec say they express themselves better in English than in French' (Iqbal, 2005, p. 307). Iqbal (2005) reinforces this disparity by claiming that in Western Canada '[d]espite rhetoric about the economic advantage and cultural enrichment brought about by bilingualism, there appear to be few initiatives that help prevent French language loss and increase French language skills among francophone adults' (p. 321).

Although Canada has two official languages, it is clear that English is significantly privileged over French. Christofides and Swidinsky (2010) demonstrate that in Quebec, where Anglophones are a minority group, the earnings of unilingual Anglophones do not differ significantly from those of unilingual Francophones. In contrast, unilingual Francophones in the rest of Canada are at a great financial disadvantage as compared with Anglophones (p. 151). Furthermore, there is a significant difference between the economic returns to knowing and using English as a second language for Francophones and knowing French as a second language for Anglophones (Christofides & Swidinsky, 2010, pp. 151-152). While simply having knowledge of French as a second official language provides bilingual Anglophones in the rest of Canada with opportunities for work in higher paying industries and occupations, bilingual Francophones in Quebec must actually use their skills in English as a second language at work in order to benefit from equivalent higher earnings (Christofides & Swidinsky, 2010, pp. 145-146).

These findings suggest that the current federal, provincial, and territorial language policies for French as an official language of Canada require adjustments. A good first step would be for language policy planners to think of ways to increase intergenerational transmission of French outside of Quebec and 'Francophone adults must be given greater daily opportunities to live in French' in order to reduce language loss for Francophones living in the rest of Canada (Iqbal, 2005, p. 321). When planning to increase intergenerational transmission of French outside of Quebec, it is also important to consider the crucial role of mothers in transmitting the language at home as studies show that '[...] transmission of the French language is more likely to occur when the francophone parent is female rather than male' (Iqbal, 2005, p. 308). Finally, it is necessary to explore how to reduce the barriers to language transmission that can

come about through partnership with a non-Francophone person because ‘[...] in British Columbia, among the francophones who are in linguistically exogamous relationships and who have children, only approximately 20% of children up to four years of age speak French at home most often’ (Iqbal, 2005, p. 308).

Secondly, it is clear that language policy planners would do well to address the unequal economic returns to knowing and using a second official language in terms of English in Quebec and French in the rest of Canada. In doing so, it would be useful to also understand other economic variables in order to draw clear comparisons between different groups. For example, when researching this issue, legislators could consider other possible labour market benefits of bilingualism such as lower underemployment and increased job mobility, and could control for the quality of proficiency in English or French as a second language as well as possible socioeconomic status effects resulting from family characteristics (Christofides & Swidinsky, 2010, pp. 138-139). Finally, it is important to use caution when drawing conclusions from sample sizes that have been reduced due to the difficulty in attaining accurate census information (Christofides & Swidinsky, 2010, p. 140).

2.3 Non-Indigenous non-official languages of Canada

When considering the history of conflict and oppression in Canada with respect to non-majority settler groups and their languages, it is important to recognize that Canada has a long history of racist immigration policies, including an immigration policy ‘[...] based on racial and geographical exclusions’ implemented by Prime Minister Mackenzie King after the Second World War, whereby only white Europeans were encouraged or even permitted to immigrate to Canada (Haque, 2010, p. 290). This did not change until 1962 when the economic importance of immigration was recognized and the focus turned to the level of education, training, and skills of newcomers rather than their race or country of origin (Haque, 2010, p. 290). However, Pearson (2002) argues that ‘[i]n many ways, the new rules of admission were no less discriminatory than the old, since those able to acquire the ‘points’ on a scale of ‘race-blind’ economic criteria were still drawn from a geographically restricted set of classed, gendered and national origin candidates’ and new arrivals still faced discrimination due to ethnic and cultural differences (p. 997). Nonetheless, with these changes in policy, there was a gradual decrease in European immigration to Canada and a dramatic increase in immigration by people from Asian, African, and South and Central American countries (Haque, 2010, p. 291). In addition to the hierarchies that non-majority settler groups were already subject to, this resulted in further hierarchies *between* non-majority settler groups. There was a division between white European newcomers who could invisibly assimilate into one of the majority settler groups by learning one of Canada’s official languages and racialized ‘visible minority’ newcomers for whom ‘[...]this strategy was forever out of reach’ (Haque, 2010, p. 291).

These racial hierarchies are perpetuated through the inherent linguistic hierarchies in Canada's language policies. Firstly, Haque (2010) argues that the *Bilingualism and Biculturalism Commission* set up a hierarchy of two founding groups (English and French settlers) in Canada where '[...]all other ethnic groups were homogenized as multicultural' and were treated as peripheral to the 'founding nations' (p. 268). The establishment of this hierarchy required the use of various inconsistent arguments by the commission. For example, the lack of unifying values between non-majority settler groups was considered a barrier to collectivity that prevented these groups from being included as a 'third force' to the 'founding nations' of Canada. In contrast, the wide range of opinions within both English and French settler communities was not seen as problematic to each of these populations being considered a collective 'founding nation' (Haque, 2010, p. 271). Secondly, the commission claimed that in the cases of both French and English, the languages were deeply connected to the cultures of these groups, whereas for the 'other ethnic groups' it was claimed that their cultures could be preserved without speaking their languages of origin (Haque, 2010, p. 280). As a result, '[a]lthough the Multiculturalism Act [1988] recognizes non-official cultural identities, this is a notion of culture that is essentially uncoupled from language' (Haque, 2010, p. 294). Furthermore, the Commission argued that since 'immigrants' had chosen to move to Canada '[...] they forfeited the right to ask for any formal recognition of their cultures and languages' (Haque, 2010, p. 276). It is significant that the Commission did not make this same assumption about majority settler populations forfeiting their right to recognition of English and French. Finally, the commission prioritized the teaching of Canada's two official languages, providing no public funding to the teaching of other settler languages, and stated that integration through official language proficiency was necessary for full citizenship and economic participation (Haque, 2010, pp. 283-285). However, the federal government of Canada does not adequately support this integration as the current Language Instruction for Newcomers to Canada (LINC) program aims only to teach survival-level proficiency in one of the official languages at 'a level not sufficient to access postsecondary education or meet the language demands of professional fields' (Guo, 2013, p. 31).

As a result of these hierarchies in policy, non-majority settler groups in Canada experience language loss and economic disadvantage. Studies show that '[...] 50% or more of the immigrants to Canada do not maintain the language(s) from their country of origin' (Mady, 2012, p. 75). Even in cases where school-aged newcomers have a positive sense of identity connected to the language of their country of origin, most still stop studying these languages after arriving in Canada. Frequently, this language shift is not a matter of choice, but rather occurs because formal instruction in the language is simply not available (Mady, 2012, p. 79). Furthermore, adult migrants to Canada are economically disadvantaged due to the effects of the LINC program. Haque (2010) argues that '[i]nherent in the policy is the assumption that the state does not have a responsibility to provide instruction to levels that would facilitate economic or social mobility' (p. 293). The resulting low levels of official language proficiency

often attained by newcomers to Canada means that they are usually restricted to low-paying jobs without opportunities for advancement (Haque, 2010, pp. 292-293).

The federal government tried to address this problem in 2003 by introducing the Enhanced Language Training (ELT) program ‘to provide a higher level of language training for the workplace’ with an emphasis on ‘language training for specific fields’ (Guo, 2013, p. 31). However, Guo (2013) argues that the ELT programs are problematic because of their emphasis on teaching Canadian values and their focus on employability (pp. 32-36). Guo (2013) claims that many ESL teaching materials in Canada ‘focus on superficial descriptions of cultural facts and behaviours, thus ignoring the complexity and ambiguity of the cultural experience of most newcomers’ and that they contain assimilationist advice to ‘think like a Canadian’ (p. 33). Furthermore, ELT bridge-to-work programs ‘focus[] on presentability and employability of immigrants for the Canadian labour market through processes such as reducing their accents, anglicizing their names, and adapting to Canadian linguistic and cultural norms’ (p. 34). This is problematic because it ‘place[s] pressure on immigrants to assimilate without promoting changes in the larger Canadian society’ thus contributing to the inequality and discrimination faced by non-majority settlers in Canada (Guo, 2013, pp. 34-36).

Even speakers of non-Indigenous non-official languages who have managed to master one of Canada’s official languages face ethnolinguistic discrimination economically. For example, Pendakur and Pendakur (2002) show that even with proficiency in a majority settler language ‘members of ethnic minorities who [also] speak their ethnic language tend to fare worse in labor markets than members of those same minorities who do not’ (p. 174). The ethnolinguistic discrimination experienced by non-majority settler groups is subject to further racialized linguistic hierarchies between these groups as ‘[...] languages associated with non-European origin people predominate among languages with negative estimated earnings differentials’ (Pendakur & Pendakur, 2002, p. 167). Similarly, George and Chaze (2014) found that engineers who speak with accents that are perceived as foreign are denied jobs ‘that require speaking with the public with a “Canadian” accent’ and are penalised for the perception that they have limited official language proficiency based solely on their accents (p. 4). Finally, young non-majority settlers face barriers to attaining economic advantage through official language bilingualism, as ‘immigrant’ children are often discouraged from enrolling in French immersion (Mady, 2012, p. 80-82). These institutional instances of racism emphasize the fact that class and race associations for different varieties of a language mean that the economic advantages and social mobility that are meant to come from second language acquisition of a dominant language are more of a myth than a reality (May, 2014, pp. 381-382).

These inequities for non-majority settler groups in Canada necessitate education and language policy reforms. For example, it would be beneficial for the Canadian government to adjust the LINC program to teach higher levels of

proficiency aimed towards economic integration and to make changes to public school curriculums in order to incorporate non-Indigenous non-official languages to a greater degree and to increase non-majority settler students' access to official language immersion opportunities. Furthermore, Guo (2013) suggests including newcomers' professional knowledge and community input in the planning of language programs for adults coming to Canada and asserts that "[t]he receiving society also needs to change in order to recognize political, cultural, linguistic and economic contributions of immigrants to Canada" (p. 37). Finally, there is a need to determine what kind of language rights are deemed appropriate for non-majority settler groups. Research into the advantages and disadvantages of different kinds of language rights for immigrant groups in other countries should be conducted as part of the policy planning process. It is important to incorporate consultations with non-majority settler groups of Canada surrounding their struggles and goals and to listen to their recommendations when planning policy changes. During the planning and implementation of policy adjustments, we should question pre-existing assumptions about the rights of these groups that have been entrenched in policy and mainstream society through the RCBB's narrative of 'two founding nations' with 'other ethnic groups' on the peripheries.

2.4 Indigenous languages of Canada

The long history of oppression of the Indigenous peoples of Canada by colonial settlers continues systematically and systemically today and stems from colonial attitudes which define Indigenous peoples, cultures, and languages as '[...] primitive and as barriers to civilisation and modernity' (Haque & Patrick, 2015, p. 28). As is widely known, these racist ideologies motivated harsh assimilationist policies, including a horrific system of residential schools aiming to destroy Indigenous cultures and languages, which have lasting trauma for Indigenous communities today (Haque & Patrick, 2015, p. 28).

Despite resistance movements by Indigenous peoples in the 1960s and 1970s and the end of the residential school system in Canada, Indigenous peoples and their languages continue to be marginalized in federal policies that are entrenched in racialized linguistic hierarchies (Haque & Patrick, 2015, p. 29). The same hierarchy established by the *Bilingualism and Bicultural Commission* that placed non-majority settler groups at the peripheries of the two 'founding nations' of Canada excluded Indigenous peoples from the equation completely (Haque & Patrick, 2015, p. 30). Furthermore, when Indigenous communities voiced their concerns about their experiences of poverty, cultural loss, and dismissal of their status as first citizens of Canada, the commission '[...] exceptionalise[d] and pathologise[d] the problem [...]' rather than addressing it (Haque & Patrick, 2015, p. 31). For example, the commission dismissed communities' concerns about language loss, concluding that Indigenous languages were primitive and therefore not meant to survive and '[t]he tremendous diversity among indigenous languages was accordingly seen not as a sign of the great cultural richness of indigenous communities, but as a barrier to

language maintenance and education as well as to the accessing of government services' (Haque & Patrick, 2015, p. 31). In this way, racist ideologies predicted, naturalized, and facilitated language loss.

These same ideologies perpetuated racial hierarchies in the *Hawthorn-Tremblay Report* and the *White Paper of 1969*, both of which suggested adjustments to the treatment of Indigenous peoples that were still entrenched in a Western worldview (Haque & Patrick, 2015, pp. 33-34). This trend of trying to make improvements while imposing dominant values and approaches was repeated in 1987 during the attempts to create a *Canadian Heritage Languages Institute* that would directly affect Indigenous languages, without consulting Indigenous communities (Haque & Patrick, 2015, pp. 33-34). Furthermore, although the *Constitution Act* of 1982 '[...] gave constitutional recognition to aboriginal rights and treaty rights,' the treatment of Indigenous peoples was still inferior to the treatment of settler populations (Haque & Patrick, 2015, p. 35). Notably, this act increased language rights for Anglophones and Francophones by '[...] guaranteeing the ability of members of these two language groups to use their own language and receive government services and education in it in a range of contexts', whereas it did not include any recognition of Indigenous language rights (Haque & Patrick, 2015, p. 35). This cemented the racialized linguistic hierarchy between settlers and Indigenous peoples of Canada. Haque and Patrick (2015) argue that the *Task Force on Aboriginal Languages and Cultures* (2005), which was created to correct these past mistakes, also operates within colonialism because it suggests addressing Indigenous language rights through the Constitution, which has been demonstrated to be a product of colonialism and racism (Haque & Patrick, 2015, p. 37). Ironically, such efforts to gain support for the protection and promotion of Canada's Indigenous languages necessarily involve '[...] appealing to the 'aboriginal rights' referred to in Section 35 of [the Constitution]...even though Section 35 makes no mention of indigenous languages and the courts have yet to recognise any constitutional obligation on government to protect or promote these languages'(Haque & Patrick, 2015, p. 39). As a result, a constitutional challenge is currently being prepared by Lorena Fontaine and David Leitch arguing that this '[...] same section of the Constitution that enshrines First Nations treaties should [...] also grant aboriginal people in Canada the right to schooling and public services in their ancestral languages' (Luksik & Howell 2016).

More progressive initiatives to improve the status of Canada's Indigenous peoples that foster the support of Indigenous communities have had their recommendations largely ignored. This was the fate of the Royal Commission on Aboriginal Peoples (RCAP) which was established in 1991 in response to the Oka Crisis in Quebec (Hughes, 2012, p. 101). RCAP's final report was released in 1996 and suggested 440 recommendations to be implemented over 20 years that were '[...] centred on a vision of a new relationship, founded on the recognition of Aboriginal peoples as self-governing nations with a unique place in Canada' (Hurley & Wherrett, 1999). The 1998 response *Gathering Strength: Canada's Aboriginal Action Plan* did not implement the majority of RCAP's

recommendations and '[t]he government's general approach to the RCAP report has been the subject of critical observations by national and international human rights bodies' (Hurley & Wherrett, 1999).

One success of RCAP is that its recommendation to create the TRC was eventually implemented (Hughes, 2012, p. 104). However, Hughes (2012) argues that the heavy reliance on Western lawyers and Western systems such as judicial inquiry in these processes means that '[...] both RCAP and the TRC are instances of the Canadian political and legal systems operating along mostly well-established routines, not instances of extraordinary efforts being brought to bear in response to problems perceived as falling entirely outside of state capacities' (Hughes, 2012, p. 104). Furthermore, she argues that the RCAP commissioners' insistence that the government take a holistic approach and implement all of the report's recommendations doomed it to fail (Hughes, 2012, p. 117). Given that Canada's current government has adopted such a holistic approach by promising to implement all of the TRC's Calls to Action, it is important to learn from the strengths and weaknesses of RCAP to ensure the successful implementation of these Calls to Action.

It is clear that there is a complex set of linguistic hierarchies at play that disadvantage Indigenous communities. These legislative and ideological hierarchies result in insufficient funding for Indigenous language maintenance and revitalization projects. For example, although BC passed the *First Peoples' Heritage, Language and Culture Act* in 1996 to provide leadership roles and public funds to Indigenous peoples in order to revitalize their cultures and languages, '[...] as of early 2006, the BC government has not provided secure funding for the foundation it created to implement the Act' (Ignace & Ignace, 2008, p. 431). Furthermore, the legislative hierarchies that place Indigenous languages beneath the two official languages translate into hierarchies of resource allocation. For instance, in 2005 the Canadian government proposed allocating \$160 million over ten years to be used in initiatives for all of the Indigenous languages of Canada. This is minimal funding compared to the \$751.3 million dollars total that is collectively held by eight provincial governments to promote the French language over only five years (Ignace & Ignace, 2008, p. 431). Another striking example of the unequal distribution of funding is that '[i]n Nunavut, French speakers receive \$3,902 per capita in funding for language services and programs, whereas Inuit receive \$44 per capita for similar programs and services' (Ignace & Ignace, 2008, p. 431). Finally, the Canadian government imposes Western goals and priorities on what little funding is granted for projects in Indigenous language education and literacy, in that '[...] it has been limited to market-driven, western-hegemonic projects, such as job-based literacy training or language teaching, that can demonstrate improved retention and higher grades relative to mainstream schooling for indigenous populations deemed "at risk" of not being integrated into the dominant labour market' (Haque & Patrick, 2015, p. 38).

These linguistic hierarchies and the corresponding lack of funds result in severe language loss along with social and economic disadvantages for

Indigenous peoples in Canada. Sixty percent of all the Indigenous languages of Canada are spoken in British Columbia, and all of these languages are critically endangered or approaching extinction (Franks & Gessner, 2013, p. 12). This has devastating effects for Indigenous communities because of the essential role of language in cultural heritage and identity (Ignace & Ignace, 2008, p. 417). Furthermore, there are significant gaps between official policies and reality which have negative effects on communities. For instance, although the *Northwest Territories Official Languages Act* (1984) declares the nine Indigenous languages of the territory as officially equal to French and English, the focus on the translation of resources and on access to services in the languages rather than on intergenerational transmission in the home has meant that this Act has not made significant progress in reversing language shift (Ignace & Ignace, 2008, p. 429). Finally, research shows that the education of Indigenous children in English-dominant schools can have harmful social, health, and economic effects including '[...]impoverished living conditions-with unemployment and with housing and health problems- and, partially through these conditions, alcoholism, suicide[...] and very serious mental harm: social dislocation; psychological, cognitive, linguistic, and educational harm, and [...] also economic, social and political marginalization' (Skutnabb-Kangas & Phillipson, 2010, p. 86). These social and economic disadvantages for Indigenous peoples manifest themselves in the Canadian context through '[...] substandard educational systems, underrepresentation of indigenous students and indigenous-identified faculty in higher education and the lower average salaries of indigenous people compared to white Canadians' (Haque & Patrick, 2015, p. 29).

Studies show that there is a strong connection between knowledge of one's Indigenous language and health and wellness. For example, Hallett et al (2007) find that in BC, 'those bands in which a majority of members reported a conversational knowledge of an Aboriginal language also experienced low to absent youth suicide rates' whereas in 'those bands in which less than half of the members reported conversational knowledge suicide rates were six times greater' (p. 398). Because of this connection, McIvor et al (2009) argue that 'culture, and therefore language, leads to stronger identities and wellness, language revitalization must also be considered in Aboriginal health research and health promotion initiatives' (p. 15). Furthermore, Thompson (2012) emphasizes that healing of historical collective trauma can occur through language as a connection to one's ancestors (p. 142). Finally, Oster et al (2014) urge policy makers and researchers to work towards increasing cultural continuity, including protecting Indigenous languages, in individual First Nations as a way to reduce type 2 diabetes rates in these communities (p. 10).

Language has also been acknowledged as an important source of Indigenous law where the legal principles 'may be so ingrained in the language of the [community] that [they] cannot be translated in an accurate or meaningful way into English' (Fletcher, 2006, pp. 21 & 28). For instance, the Mohawk language plays an important role in the court law of the Akwesasne court. B. Cole, G. Terrance, & K. Ransom indicate that there is a lot of work being done to

articulate Akwesasne legal values and principles in the language instead of using words for concepts of justice that have more aggressive colonial connotations (personal communication, January 16, 2017). Furthermore, Fletcher argues that language speakers are better placed to understand their community's Indigenous law, which suggests that language loss can also lead to losing connection to Indigenous legal principles and traditions. (Fletcher, 2006, pp. 4 & 28).

These grave injustices towards the Indigenous peoples of Canada, the negative social, cultural, economic, and health effects of language loss, the recent Calls to Action of the TRC, and the preparation of a constitutional challenge to recognize Indigenous language rights all point to the need for major policy reforms. In planning and implementing J. Trudeau's government's proposed *Indigenous Languages Act*, it will be crucial to incorporate local knowledges of Indigenous peoples and to consult and collaborate with Indigenous communities about their needs and goals. When formulating adjustments to language policies that aim to unsettle the linguistic hierarchies, it is important to seek out critiques from the perspective of colonized Indigenous communities and to acknowledge that Western knowledge is not neutral, but a dominant local knowledge because '[i]t is when we acknowledge the localness of each of our own knowledge that we have the proper humility to engage productively with other knowledge traditions' (Canagarajah, 2005, pp. 14 & 20).

In terms of practical considerations for planning policies for the Indigenous languages of Canada, it is important to develop practical methods and incentives to '[...] restore use of language in everyday communication as well as in culturally and ceremonially important functions' (Ignace & Ignace, 2008, p. 432). It would be beneficial to consider the important role of local educators for the success of language policies and to think about how multilingual education can facilitate discussions about oppression in order to work towards a more just future for all (Hornberger, 2008, p. 208). Towards this end, there is a need for more formal training and certification for Indigenous language instructors. It is also crucial that school boards establish and clarify their accountability to spending funds '[...] on language learning in a way that relates to what the community wants' (Blair & Laboucan, 2006, p. 212). Furthermore, support and collaboration of all levels of government is necessary at every stage of language and educational policy planning and implementation (Blair & Laboucan, 2006, p. 213). Throughout this involvement of outsiders to Indigenous communities, it is important to prevent linguistic theft, which is the appropriation of linguistic knowledge and intellectual property of Indigenous communities by dominant outsiders. This has been a serious problem for many communities who feel that their language has been exploited and who lack sufficient resources to deal with these violations (Ignace & Ignace, 2008, p. 433). Finally, '[...] it is important to find as many ways as possible to elevate the status of the language in the eyes of speakers, nonspeakers, and outsiders' which can be partly achieved through creating resources for literacy in the language (Blair & Laboucan, 2006, p. 209). Since '[p]lanning for a language's status as medium of education and developing its corpus for those uses go hand in hand' it would also be helpful to recognize

the connected steps of corpus planning and language policy planning (Blair & Laboucan, 2006, pp. 212-213 & Hornberger, 2008, p. 203).

Although it is outside the scope of this paper to examine the contexts of different Indigenous language groups in detail, in actual policy planning it is necessary to avoid overgeneralizing by placing all the Indigenous communities and languages of Canada into one pan-Indigenous group.

3 Consequences for policy

It is clear that there are linguistic hierarchies entrenched in Canada's language policies which have detrimental effects on French language speakers, non-majority settler groups, and the Indigenous peoples of Canada. The inequities between Canada's language groups are issues of rights that, in the case of French and Indigenous languages, the federal government has made national and international commitments to protect. The remainder of this paper will discuss considerations that could be helpful for policy makers to keep in mind when drafting solutions such as the *Indigenous Languages Act*. This includes a discussion of language rights and linguistic human rights as they relate to Canada's national and international commitments and some more general practical considerations for language policy planning.

3.1 Language rights and linguistic human rights

Despite the significant connection between language rights, political debates, and political theory, there is insufficient research surrounding '[...] the issue of language rights from the perspective of normative political theory' (Patten & Kymlicka, 2003, p. 1). Research from this perspective would involve investigating how language rights claims connect with principles like freedom or equality within a political theory such as liberalism, feminism, or postmodernism. Political theorists have formulated normative theories that examine rights claims for diversity issues of race, Indigenous peoples, immigration, nationalism and religion, but not linguistic diversity (Patten & Kymlicka, 2003, p. 1). This is surprising due to the following three relationships between language rights, language policies, political debates, and political theory. Firstly, language policy has practical consequences for language rights. Language policy affects: internal usage in public institutions, public services provided, communication in courts and legislatures, media of instruction and subjects of public education, private language usage, immigration, and official declarations (Kymlicka & Patten, 2003, pp. 16-26). Secondly, political theory impacts language policy which then determines language rights. For instance, political theories surrounding citizenship, nationhood, multiculturalism, and deliberative democracy rely upon assumptions about which languages are spoken by whom and necessarily have consequences for language policy and language rights (Patten & Kymlicka, 2003, p. 16). Thirdly, language is inextricably linked to many key political debates of our time, including how to deal with transition to democracy, regional minority

nationalism, immigrant integration, transnational democracy, biodiversity, and multicultural models of citizenship (Patten & Kymlicka, 2003, pp. 3-16). Because of the ties between language rights, political theory, and political debates, and because language policies have practical implications for how language rights are implemented, Kymlicka and Patten (2003) argue that language policies should be informed by a normative theory of language rights (p. 36). This means that language policies should be based on an understanding of language rights and that these policies and rights together can facilitate decisions regarding conflict resolution within current political debates. This approach is particularly important in Canada, where the linguistic hierarchies entrenched in language policies do not grant equal rights of access, use, and protection to all languages, which results in severe inequities and political tensions between groups.

Linguistic human rights (LHRs) provide a particular conception of language rights which emphasizes the social and political causes of language loss to justify official protection and support of non-dominant languages (May, 2012, p. 8). Skutnabb-Kangas and Phillipson (1995) argue that “[l]inguistic rights should be considered basic human rights” but, that only speakers of a dominant language enjoy all of the fundamental LHRs (p. 1). The authors define LHRs as including “the right to learn the mother tongue, including at least basic education through the medium of the mother tongue” and collective “guarantees of representation in the political affairs of the state” (p. 2). They argue that protecting LHRs is particularly important because depriving people of LHRs can prevent them from enjoying other human rights such as the right to a fair trial and access to education (p. 2).

Grin (2005) claims that an argument for promoting language policies that support linguistic diversity based on LHRs is not strong enough on its own, because it relies solely on moral considerations (p. 448). He suggests using the tool of language policy evaluation which views language policy as a type of diversity management with the goal of increasing welfare. Grin (2005) explains that “[t]he chief purpose of evaluating language policies as a form of public policy is to contribute to democratic political debate by clarifying language policy options [...]’ (p. 450). He argues that a language policy evaluation perspective successfully counters doubts surrounding feasibility of language revitalization, appropriate allocation of limited resources, and distributive fairness, and therefore provides the strongest justification for protecting language diversity (p. 457). Similarly, Patten and Kymlicka (2003) use the strong connection between language and important current political debates to argue for a normative theory of language rights that includes ‘[...] standards for evaluating the decision about which languages to privilege in which contexts’ (p. 36).

When formulating language policies in the Canadian context of complex linguistic hierarchies, it is important to consider factors to help decide which languages to privilege in which contexts. In order to do so, it is necessary to understand the context of connectedness within these hierarchies. Furthermore, it is crucial to constantly evaluate such language policies in order to be transparent

about their implications and to ensure that the current linguistic hierarchies do not remain entrenched.

3.2 International and national commitments and constitutional issues

As is well known, the *Indigenous Languages Act* was proposed in response to the TRC's Calls to Action. It is therefore obvious that the Act should implement the goals set out in the language and culture section as part of the federal government's commitment to implementing the Calls to Action. However, it would also be useful for policy makers to address the concerns and values of other international and national commitments in order to draft an effective and meaningful solution to the problems related to Indigenous language loss.

Firstly, in 2007 the United Nations General Assembly adopted the UN Declaration on the Rights of Indigenous People (UNDRIP) articulating the fundamental rights of Indigenous peoples. Three of this Declaration's articles address Indigenous language rights. Article 13 stipulates for the right of Indigenous peoples to revitalize their languages and to understand and be understood in legal and administrative proceedings; Article 14 establishes the right to manage their own educational systems and to teach and learn in their own languages; and Article 16 provides for the right to produce their own media in their own languages (United Nations). Canada officially endorsed UNDRIP in 2010, therefore these three articles should inform the policy decisions made in drafting the proposed *Indigenous Languages Act* (Franks & Gessner, 2013, p. 86).

Secondly, policy makers would benefit from taking into consideration the Assembly of First Nations National First Nations Language Strategy which was developed in 2007. This document outlines a twenty year vision for the revitalization of First Nations languages in Canada, including the implementation of a First Nations Languages Act. In drafting the proposed *Indigenous Languages Act*, policy makers could use the five goals of this strategy as useful guiding principles. These goals are the following:

1. Increase the number of First Nations people who speak their language by increasing the opportunities to learn their language.
2. Increase the opportunities to use First Nations languages by increasing the number of circumstances and situations where First Nations languages can be used.
3. Improve the proficiency levels of First Nations citizens in speaking, listening to, reading and writing First Nations languages.
4. Increase the rate of which First Nations languages can be enhanced, revitalized and developed so that they can be used in the full range of modern activities.
5. Foster among First Nations and Non-First Nations a positive attitude towards, and accurate beliefs and positive values about First Nations

languages so that multi-lingualism becomes a valued part of Canadian society. (Assembly of First Nations, 2007, p. 9).

Finally, it would be useful for policy makers to consider the constitutional challenge being prepared by Fontaine and Leitch which suggests that Indigenous language rights should be entrenched in section 35 of the *Constitution Act 1982*. When interviewed by CBC about his work with Dr. Fontaine, Leitch explained: ‘aboriginal languages should be awarded "similar consideration" to French and English, which [...] tend to dominate talk about language rights in Canada. He would rather not have to take the case to court, and hopes the government will instead address the issue as it follows up on the recommendations of the Truth and Reconciliation Commission.’ He and Fontaine argue that s. 35 guarantees ‘a right to keep cultural ties like language alive’ and that the government is therefore obligated to provide schooling in Indigenous languages. Leitch believes this is an issue of equality, which he expresses by saying ‘I want peace in my own country. I don't want to feel like 350 years later, the people who were here first, their languages, their culture, their traditions are trampled upon.’ (Brown, 2007).

3.3 Practical considerations for language policy planning and implementation

It has been demonstrated that Canada’s current language policies are subject to linguistic hierarchies resulting in language loss and social and economic disadvantages for Francophones, non-majority settler groups, and Indigenous peoples. In order to address these issues by adjusting the current legislation and creating new language policies such as the *Indigenous Languages Act*, the following practical considerations will be relevant and useful.

Firstly, it will be necessary to acknowledge the difficulty in defining membership in linguistic groups due to the potential inaccuracy of census self-reporting and due to the complex relations between ethnicity and language (Christofides & Swidinsky, 2010, p. 140). May (2011) argues that since not all individuals of an ethnic group that is associated with a particular language actually speak that language and since in many cases the same language is spoken by many different ethnic groups, ‘[d]etermining that an individual belongs to a particular linguistic minority is thus not an issue of establishing some type of legal or political category, it is principally an objective determination based on some concrete link between an individual and a linguistic community’ (p. 272).

Secondly, the interdisciplinary nature of language rights means that an interdisciplinary approach is needed in order to plan and implement policies which address the aforementioned inequalities. For example, Skutnabb-Kangas and Phillipson (2010) demonstrate that economic globalization leads toward linguistic homogenization and glocalization (in other words, ‘[t]he practice of conducting business according to both local and global considerations’, Oxford

English Dictionary). They argue that '[l]inguistic glocalization needs to be discussed in a politico-economic framework which relates the hierarchization of languages to global and local power relations' (p. 81). Similarly, Kontra et al (1999) highlight the connections between language, education, linguistics, and international trade (pp. 15-16). They claim that the intersection of these different disciplines necessitates the multidisciplinary clarification of terms in order for '[...] sociolinguists, human rights lawyers, and politicians...to understand linguistic human rights in similar ways' (Kontra et al., 1999, pp. 2-3). This includes the need to question the supposed universality of concepts (such as mother tongue) and of the prioritization of different kinds of rights over others (such as the valuing of individual rights over collective rights). This process of questioning is necessary because '[t]here may be Euro-centricity and Western-centricity in how language rights are conceptualized, and this need not be a blessing' (Kontra et al., 1999, p. 2). The need to clarify which worldview(s) influence the conceptualizing of language rights is particularly relevant to the Canadian context where colonial hierarchies in legal instruments have dictated Indigenous language rights for many years without appropriate consultation with the communities.

Thirdly, it is important to consider the economic feasibility of enacting various language policies in Canada and the economic justifications for doing so. Grin (2005) proposes that it is possible to estimate the '[...] net social value of different linguistic environments... by importing methods from environmental economics' (p. 454). Using this approach, he provides examples of costs for different language policies in the Basque country, Guatemala, Quebec, and the European Union to demonstrate that when broken down by cost per resident, language policies tend to be much less expensive than is popularly believed (Grin, 2005, p. 454). For example, 'the total cost of the far-reaching *Charter of the French language* in Quebec [...] ranges [...] from 0.28 percent to 0.48 percent of provincial GDP- that is, less than half a percentage point' and 'even the supposedly horrendous cost, to the European Union, of having 11 official languages, amounted to 0.8 percent of the EU's budget, or 1.82 Euros per resident and per year' (Grin, 2005, p. 454). Although more detailed economic research will need to be conducted on the Canadian context, by this logic, the adjustment of current language policies in Canada and the implementation of new ones should be economically feasible.

Furthermore, it is important to acknowledge that many justifications for implementing effective language policies for linguistic minorities are rooted in economic terms rather than solely in moral arguments. For example, the economic effects of the connection between language and health and wellness have not been studied and would be useful to explore. In addition, Skutnabb-Kangas and Phillipson (2010) argue that language rights are categorized as non-market values, which are therefore protected less than market values in international law (p. 89). This results in a state obligation to interfere based on economic principles regarding market failures (Grin & Vaillancourt, 2000, p. 104, Skutnabb-Kangas & Phillipson, 2010, p. 90). Without such cases of state

support, the imposition of dominant languages causes disadvantages in monetary, social, and temporal terms for minority speakers, as demonstrated for non-majority language groups in Canada. Similarly, liberal political theory provides a convincing justification for implementing effective language policies because '[...] it is difficult to see what would justify the marginalization of most of the world's small languages for the benefit of the larger languages and the native speakers of the latter' (Grin, 2005, p. 455). Furthermore, Grin and Vaillancourt (2000) argue that when deciding how much to spend on a language policy, normally '[...] the amount of services should be equal to what can be financed from the taxes paid by the group for these services' but that this rule of user-pay does not apply for linguistic minorities in socioeconomically underprivileged situations and/or '[...] when the imperilled position of the minority language is the result of [...] oppression -usually at the hand of the holders of power in the majority community' (p. 107). This fits the context of oppression of Indigenous communities and the socioeconomic disadvantage faced by Francophones, non-majority settler groups, and Indigenous peoples in Canada. Lastly, multilingualism has economic benefits and social market values including increased job opportunities, enhanced creativity, and more efficient cross-cultural communication (Skutnabb-Kangas & Phillipson, 2010, pp. 91-92). Therefore, in planning language policies '[b]oth market and non-market values...have to be considered...because languages are both economic and cultural goods' (Skutnabb-Kangas & Phillipson, 2010, p. 93).

Finally, at every stage of language policy planning and implementation in Canada, it is crucial to consider the importance of ongoing evaluation. Blair and Laboucan (2006) emphasize this need by stating that '[e]stablished policies need to be revisited and rethought' as the situation of a particular language changes (p. 209). Furthermore, policy evaluation is necessary from a political theory perspective. Patten and Kymlicka (2003) argue that formulating a normative theory of language rights that evaluates what kind of language rights should be granted to which language groups addresses '[...] the fact that language policies inevitably involve privileging a limited set of languages' in a way that the approaches of benign neglect or Linguistic Human Rights cannot' (Patten & Kymlicka, 2003, p. 36). Significantly, language policy evaluation democratizes the policy planning and implementation process by clarifying the efficiency of different policy options and by identifying who benefits from these policies and how (Grin, 2005, p. 450). Lastly, establishing province-wide committees to share input is crucial to the effective and appropriate implementation of language policies (Blair and Laboucan, 2006, p. 212). When planning policy for Indigenous languages, these committees must be largely composed of community representatives. It is essential to follow traditional protocols and to collaborate with Elders in order to understand community goals and concerns and to listen to and incorporate their suggestions (Blair & Laboucan, 2006, p. 211).

4 Conclusion

In conclusion, this paper has demonstrated that there are deeply rooted linguistic hierarchies in Canada that result in language loss and social and economic disadvantages for Francophones, non-majority settler groups, and Indigenous peoples in relation to the dominant Anglophone majority settler population. It is important to note that the *Bilingualism and Biculturalism Commission*, which first entrenched these hierarchies in legislation, was originally initiated with the goal of restoring Canadian national unity in the face of the Quebecois nationalist movement (Haque & Patrick, 2010, p. 30). This shows the crucial interdependence of the futures of all the languages in Canada. In this extreme case, efforts to appease one linguistic minority were conducted in a way that produced a hierarchy that continues to severely disadvantage other non-dominant groups in the country. Furthermore, although the commission's projects such as the *Official Languages Act* (1969) were meant to grant English and French equal status in Canada, the language loss commonly experienced by Francophones outside of Quebec and the economic disparity between Anglophones and Francophones in Canada reflects a huge gap between policy and reality. This suggests that the colonial narrative of Canada's 'two founding nations' that excludes Indigenous peoples as the first inhabitants of the land and that has included years of oppression of Indigenous communities leading to language loss, also fails to grant equal status to the two groups it apparently tries to privilege. Therefore, the linguistic hierarchies in Canada officially privilege English and French over Indigenous and non-majority settler languages and cultures, but practically privilege English only. A similar gap has been revealed between Canada's *Multiculturalism Act* (1988) which was meant to recognize the contribution of 'other ethnic groups' to Canadian life through '[...]the enrichment that results from the meeting of a number of languages and cultures' and the language loss and economic disadvantages experienced by Canada's non-majority settler groups (Haque, 2010, pp. 281-282). This second large gap between policy and reality further demonstrates that in addition to causing severe inequities between groups, Canada's language policies also do not accomplish their official goals of harmonious bilingualism and multiculturalism.

Based on these findings, it becomes clear that in planning legislation to satisfy the TRC's 94 Calls to Action, it would be helpful to consider the relations between Indigenous languages and the other non-dominant languages of Canada and to decolonize and break down the linguistic hierarchies in place in order to prevent further gaps between policy and reality. This will allow us to work towards a more just co-existence for the different groups in the country. In so doing, it is important to question why these hierarchies have been naturalized. Referring to the similarities between RCAP and the TRC, Hughes (2012) argues that '[t]racing the footsteps of where we have been before will not substitute for the creativity and audaciousness that will be required to engage settler society in the process of the TRC, nor for the ingenuity and solid public-policy expertise required to draw the focus government to develop political will' (p. 126). This

means that continued dependence on Western legal systems that are connected to Canada's colonial image of two 'founding nations' will not create the necessary systemic changes to implement the TRC's Calls to Action effectively. In order to have a deeper impact and to avoid repeating past injustices, understanding the context of the linguistic hierarchies in Canada's language policies in order to unsettle them is an important first step towards meaningful change.

The drafters of the recently announced *Indigenous Languages Act* would benefit from valuing language and language rights, respecting history, and learning from past policy shortcomings in order to unsettle these linguistic hierarchies. While this is simply a brief preliminary examination of the Canadian context, it is hoped that along with further research and collaboration with members of these groups, this perspective will help increase understanding of the interconnected contexts of these language groups and assist in the implementation of the goals of UNDRIP, the TRC, and the AFN National First Nations Language Strategy. I believe that implementing a policy evaluation approach would be an excellent way to adjust Canada's current legislation and to add new legislation to protect and promote the languages and cultures of Canada's Indigenous peoples, non-majority settler groups, and Francophone populations. It is absolutely essential to incorporate ongoing consultation with community members and to listen to the recommendations that they formulate. An interdisciplinary approach should be utilized and economic considerations should be taken into account. Not only would eliminating the linguistic hierarchies of Canada's language policies alleviate inequities between language groups, promotion of linguistic diversity would also provide advantages to Canada as a nation-state. For instance, 'multilingualism has social market value' in terms of recruitment in the global labour market and in terms of increasing creativity and innovation (Skutnabb-Kangas & Phillipson, 2010, p. 91). Therefore, language policy reforms to make Canada a multilingual and multicultural country could make it a more equitable and a more *prosperous* nation-state.

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Rhetorical interpretation of counterfactuals

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This article examines what I call a “rhetorical” interpretation of counterfactual conditionals. The standard interpretation of counterfactual conditionals implies that “there is a possibility that such and such proposition would/might be true. The rhetorical reading of counterfactual conditionals implies that “such and such proposition would NEVER be true.” The subjunctive conditional with a rhetorical interpretation will be called “rhetorical counterfactual.” The examples of rhetorical counterfactuals are found in the focus construction (“*koso-e* construction”) in Early Japanese. I argue that rhetorical counterfactuals are best represented by the semantics of *only-if*, and that the rhetorical reading results from the rhetorical implication that the antecedent is not going to be true with respect to what the speaker considers “conceivable.”

Keywords: counterfactual; only if; subjunctive conditional; rhetorical; conceivability

1 Interpretations of counterfactuals

Broadly speaking, counterfactual conditionals are a conditional in which the antecedent describes contrary-to-fact state of affairs, and express a certain connection between the antecedent and the consequent: if the antecedent was to hold in the given context, the consequent would hold. For instance, in (1), the antecedent “kangaroos have no tails” is a contrary-to-fact in the context, and if it was to hold, then “kangaroos will topple over” is expected.

(1) If Kangaroos had no tails they would topple over.

Lewis (1973) provided the truth conditions for counterfactuals. According to Lewis’s truth conditions, the counterfactual conditional such as (1) asserts that for all the possible worlds in which the antecedent would hold among those minimally different from the context world, the consequent will be true.

Now let us talk about what is referred to by the term “rhetorical.” Kearns (2000:32) states that the rhetorical use of conditionals refers to the conditional whose antecedent is used rhetorically. Yoos (1975) argues that there are rhetorical uses of subjunctive conditionals, and defined the rhetorical uses as a function of the subjunctive conditional in the discourse, and not what makes the subjunctive conditional true or false. In general, “rhetorical” refers to “figure of speech,”

which adds a certain pragmatic effect to the literal meaning of the linguistic expressions, such as expressing determination or giving advice. According to Kearns, the rhetorical use of conditional is supposed to express that the consequent is false and the conditional does not require any causal connection between the antecedent and the consequent. Furthermore, Kearns argues that the rhetorical use of conditional requires the antecedent be false in order for the conditional to be true, since the consequent is false.

Let us ask ourselves what would be like if the rhetorical reading is expressed in the subjunctive conditional. The rhetorical antecedent of conditionals usually picks up the “impossible” or “absurd” proposition to bring out the rhetorical effect to the conditional. So, if someone asks you, “will you do it?” and you answer by saying “when/if pigs fly!” it simply means “no” or “never.”

However, the matter is not that simple when it comes to the rhetorical use of subjunctive conditionals. The reason is that when a counterfactual conditional has an impossible antecedent as in (2), it doesn’t assert that the consequent is false, as the conditional would be “vacuously” true, failing to distinguish truth value between (2a) and (2b).

- (2) a. If cows had wings, they might jump over the moon.
- b. If cows had wings, they might NOT jump over the moon.

In (2), the antecedent is supposed to be impossible. When the speaker intends to express that the antecedent is impossible, the truth-value assignment of the counterfactual conditional becomes vacuous. Therefore, there is no difference in the truth-values of (2a) and (2b). The examples in (2) do not provide evidence for rhetorical interpretations of counterfactual conditionals, if the rhetorical use is to express the falsity of the consequent.

The purpose of this article, however, is to show that there is a rhetorical interpretation to counterfactual conditionals, which I will call “rhetorical counterfactuals,” and that under this rhetorical interpretation of counterfactuals, it implies that the consequent is false. According to Stalnaker’s (1968) theory of conditionals, a conditional is true (at the context world) when its consequent is true in the world selected. According to Lewis’s (1973) truth conditions of counterfactuals, the counterfactual conditional is true when the consequent is true for all the worlds in which the antecedent is true among accessible worlds. Both theories predict that the counterfactual conditional is assigned a truth-value only when there is at least one possible world in which the antecedent holds. Otherwise, the counterfactual conditional is undefined. I will seek justification for the rhetorical interpretation of counterfactual conditionals as one of the possible interpretations of counterfactual conditionals that have a non-vacuous truth in semantics, to be distinguished from those that are vacuously assigned truth as in (2).

2 Rhetorical reading of counterfactuals

In this section, I will provide the examples of rhetorical counterfactuals used in the original texts from literature works written during the period of Old Japanese (OJ). There are certain sentence constructions that elicit rhetorical reading of counterfactuals. One is the focus construction *koso -e* in OJ, and the other is English *only if* counterfactuals. I will examine whether the difference between the rhetorical reading and the non-rhetorical interpretation of counterfactuals follows from conventional meaning of these sentence constructions.

2.1 Rhetorical counterfactuals in *koso -e*

The examples of rhetorical counterfactual are the followings¹:

- (3) a. ひさかたの天のみ空に照る月の失せなむ日こそ吾が恋やまめ
 Pisakata.no ama.no misonra ni teru tukwi no
distant heavenly sky DAT shine moon GEN
 use -na -mu pi **koso** a ga kwopwi yama -me²
end PERF CONJ day koso I GEN longing stop CONJL
 (MYS 12: 3004³)

‘On **the very** day when the moon that shines in the broad heavens ceased to be, my affection would come to an end.’

(adapted from Suga 1991: Part II, 364)

‘While the moon shines above (=not disappear), I shall **not** change, my love.’

(Honda 1967: 225)

- b. 天地といふ名の絶えてあらばこそ汝と我と逢ふこと止まめ
 Ametuti to ipu na no tayete ara -ba **koso**
world COM call name GEN stop.GER be COND koso
 imasi -to are -to apu koto yama -me.
you and I and meet to stop CONJL
 (MYS 11: 2419)

‘**As long as** the phrase heaven and earth does exist (=not pass away), you and I **will not** give up meeting with each other.’

(adapted from Suga 1991: Part II, 259)

¹ GEN genitive; CONJ(L) conjunctive; GER gerund; COMP complementizer; COND conditional. Refer to Frellesvig (2010) for details of these abbreviations used in the gloss.

² Due to the space limitation, no specific notations are given to verbal conjugations in the glossary. This includes “Exclamatory” for the sentence ending form *-e* in *koso -e*.

³ All the citation numbers follow *Shinpen Nihon Koten Bungaku Zenshu* (1994-1996).

‘O that I **could** keep our relationship (=not give up our relationship) **as sure as** heaven and earth exist (=not pass away).’
(Honda 1967: 192)

In (3a), the speaker is lamenting that the speaker’s (suffering from) longing would NOT end, believing that the moon will never disappear from the sky; contrary to the standard reading in which the speaker asserts what would be the case when the moon disappears. In (3b), the speaker asserts that s/he will NOT stop meeting with his/her love, contrary to what would be meant by the standard interpretation of the counterfactual: that the speaker would stop meeting with his/her love if it were ever true that “the heaven and earth passed away.”

Crucially, the truth of the counterfactual conditionals in (3a-b) repeated here as (4) and (5) are demonstrated by the predicted falsity in the scenario 1, and the truth in the scenario 2:

- (4) As long as the moon that shines in the broad heavens does exist (=not ceased to exist), my affection will not come to an end.

Scenario 1: The moon exists (=NOT cease to exist), and the speaker’s affection for the addressee comes to an end.

Scenario 2: The moon exists (=NOT cease to exist), and the speaker’s affection for the addressee does NOT come to an end.

- (5) As long as the heaven and earth does exist (=not pass away), you and I will not give up meeting with each other

Scenario 1: The heaven and earth exist (=NOT pass away), the speaker and the addressee give up meeting with each other.

Scenario 2: The heaven and earth exist (=NOT pass away), the speaker and the addressee do NOT give up meeting with each other

In (4) and (5), the scenario 1 invalidates, while the scenario 2 validates the uttered *koso -e* statements. This result indicates that the *koso -e* statements implicate a strong denial of the consequent whenever the antecedent is false, as stated in the scenario 2; and excludes the scenario 1 where the consequent is true while the antecedent is false.

If we compare these results (4) and (5) with (2), where the counterfactual has an impossible antecedent, repeated here as (6), the difference is obvious. There will be no difference whether the consequent would be true or not, as shown in (6a) and (6b).

- (6) a. If cows had wings, they might jump over the moon.
b. If cows had wings, they might NOT jump over the moon.

In these cases, the conditional is assigned truth no matter what the consequent is. The rhetorical reading of counterfactual implicates that the consequent is inconceivable.

In the rhetorical counterfactual, on the other hand, the falsity of the antecedent implicates the falsity of the consequent. This clearly shows that the rhetorical counterfactual can be assigned a non-trivial truth, unlike the counterfactual with impossible antecedents.

2.2 Rhetorical counterfactuals in English *only if*

In this section, I compare Japanese *koso -e* with English *only if* by which the rhetorical reading of counterfactuals is elicited. I argue that the rhetorical reading of counterfactuals cannot be entailed from the conventional meaning of *only-if* subjunctive conditionals. The English examples of a rhetorical counterfactual are observed in (7):

- (7) a. Only if I had nine lives would I have jumped into the air without fear.
 b. Only if you were perfect in every sense would you never have to repent.

These sentences have forms of subjunctive conditionals. Subjunctive conditionals in general express a possibility of the truth of the consequent, but there are implicit intentions of the speaker in (7) that is not explicitly expressed by the forms of the sentence. In (7a), the speaker expresses his/her intention that s/he NEVER wishes to jump into the air. Likewise, in (7b), the speaker states the possibility of not repenting at all, but the intension expressed is an expectation for the listener to repent. The hidden intention of the speaker is sensed through the nature of the antecedents, which are believed to be inconceivable.

However, in the default cases, English *only-if* can express non-rhetorical readings of *only-if* subjunctives, as in (8):

- (8) a. Only if the butter had been heated up to 150°F would it have melt.
 b. Only if everybody agreed would I accept this position.

In (8), the *only-if* subjunctives seem to implicate a possibility of the antecedent and there involves no implication of “never.” In (8a), the speaker indicates the possibility that the butter could have melt; and in (8b), the speaker asserts that there is a possibility that s/he accepts the position. The implication of “there is a possibility” observed in (8a-b) contrasts sharply with the implication of “there NEVER be a possibility” in the rhetorical counterfactuals shown in (7a-b) above.

The contrast observed in (7) and (8) seems to suggest that the subjunctive conditionals are neutral in terms of the existence of possible worlds in which the antecedent would hold. And if true, the subjunctive conditionals are open to different readings of counterfactual conditionals. Von Fintel (1998) defines counterfactuals and subjunctive conditionals as follows:

We will call a conditional *if p, q* counterfactual iff it is presupposed that C (= “current context set” or epistemically accessible worlds) contains no *p*-worlds.

We will call a conditional *if p, q* subjunctive iff it displays the morphosyntactic hallmarks such as a modal *would* or *might* in the consequent and the characteristic use of “fake tense.” (slightly modified from von Fintel 1998: 2)

According to von Fintel’s definition of these terms, counterfactuals are characterized by the presupposition that the antecedent is false in the actual world, whereas the subjunctive conditionals are characterized as morphosyntactic realization of subjunctive markings. In (7) and (8), both conditionals are expressed in the subjunctive forms, differing in the readings of the counterfactual conditionals. The examples in (7) and (8) seem to suggest that the subjunctive conditionals can give rise to different readings. All I can say here is that the morphosyntactic characteristics of *only if* subjunctive conditionals are not responsible for the distinction between rhetorical and non-rhetorical readings, since the same morphology gives rise to either reading. Anderson’s (1951) argument provides us with some evidence as to whether all subjunctive conditionals are counterfactuals. Anderson argued against the view that a subjunctive conditional always expresses counterfactuality, and that a subjunctive conditional, in fact, can state something that holds true in the actual world. For instance, Anderson used the example, “if Jones had taken arsenic, he would have shown just those symptoms which he does in fact show.” In this example, the speaker is using the subjunctive conditional to describe a causal connection between events; but the speaker is indicating that the consequent of the subjunctive is actually the case in the context. So, Anderson claims that this subjunctive conditional is not expressing contrary-to-fact. In this case, the expected truth of the consequent (i.e. “showing the symptoms”) of the subjunctive conditional suggests that the antecedent (i.e. “Jones had taken arsenic”) is likely to be the case, which cannot be verified in the context. The antecedent is still hypothetical due to the lack of our knowledge about facts, but in this case, the speaker believes that the antecedent of the subjunctive conditional is likely to be true based on the causal connection of the two events and the truth of the consequent.

English *only-if* subjunctive conditionals can express either the rhetorical or the non-rhetorical reading of counterfactuals, depending on the context.

2.3 Non-rhetorical readings of *koso -e*

Though the rhetorical reading is the primary and default reading of counterfactual interpretation of *koso -e*, there are cases of *koso -e* where the non-rhetorical reading is possible. Such variation is observed when the context allows the possibility of the truth of the consequent and the speaker emphasizes uniqueness of the truth of the antecedent. The examples are the following:

- (9) a. 商返し許せとの御法あらばこそ我が下衣返し賜はめ
 Akikapyesi yuruse tonon minori ara -ba koso
Cancelation allow.IMP COMP law exist COND koso
 a -ga sitagoromo kapyesi tamapa -me.
I GEN undergarment return receive[hum] CONJL
 (MYS 16: 3809)

‘(Only) if there be a law that allows the tradesman to break a contract, would you return to me, my under-robe!’

(Adapted from Nippon Gakujutsu Shinkokai translation: 273)

- b. 薦枕あひまきし児もあらばこそ夜の更くらくも我が惜しみせめ
 Komomakura apimaki si kwo mo ara -ba koso
Pillow share PST love ETOP exist. COND koso
 yo.no fukuraku mo a ga wosimi se -me
night's advancement ETOP I GEN feel.sad.INF do CONJ
 (MYS 7: 1414)

‘Only if my love who used to lie beside me was still alive would I feel sad as the night advances.’

(adapted from Suga (1991) and Honda (1967))

In (9a), the author of the poem expresses her intention that the addressee should NEVER return the speaker’s undergarment that was once given to the addressee as a gift. According to the translation, the poem was written by the ex-lover of the emperor, who resented the fact that her old gift to the emperor was returned to her as a result of the waning of her relationship with the emperor. Here the speaker (the ex-lover of the emperor) expressed her reasoning that since there will not be such a law that allows cancellation of a past transaction, the emperor is likewise not allowed to return the gift he had once accepted, just because he changed his mind. Understood in this context, the “rhetorical” construal whereby the consequent is denied seems to be forced solely by the speaker’s intention. However, the same poem could receive a “non-rhetorical” construal if the law is felt to be changeable. Assuming that the law was in fact changeable, then the speaker expresses that if the law were to change, the undergarment would be returned. Similarly, the rhetorical interpretation of the poem in (9b) expresses the speaker’s lament of not having his wife back to life in any conceivable future, and thus it no longer matters whether night is longer. This interpretation does not

exclude the “non-rhetorical” construal, since it is possible to imagine the counterfactual situation in which the speaker’s wife was alive.

The rhetorical reading is based on the speaker’s belief that there is no chance of actualization of the antecedent. As soon as the speaker believes in the actualization of the antecedent as a possibility, the rhetorical reading disappears. Thus, the rhetorical implication is in complementary distribution to non-rhetorical reading with respect to context. This contextual requirement can be summarized as follows:

- (10) a. Rhetorical implications in [A *koso* B-*e*]
 There is no possibility that A is true, and only if A were true would B be true. Therefore, B would never be true.
- b. Non-rhetorical implications in [A *koso* B-*e*]
 There is a possibility that A is true, and only if A were true would B be true. Therefore, B might be true.

2.4 Summary of implication of *koso -e*

To summarize the counterfactual interpretation of *koso -e*, I argue that there are two contrasting implications, as summarized in (11).

- (11) A-*koso* B-*e* implies either (i) or (ii)
- i. A is not possible/conceivable; therefore, B would never true.
 - ii. A is possible/conceivable; only if A were true, B would be true.

The implication (11i) results in the rhetorical reading of counterfactual: the falsity of the antecedent implies the falsity of the consequent. The implication (11ii) corresponds to the non-rhetorical reading: the truth of the antecedent implies the truth of the consequent. As we have seen in the English *only-if* and *koso -e* in Old Japanese, the two implications are incompatible with each other; the interpretation of *koso -e* picks out one or the other implication depending on the context. In other words, the context determines the speaker’s intention of uttering the counterfactual.

What do these characteristics tell us about the semantics of *koso -e*? I claim that the semantics of *koso -e* is closest to the semantics of *only-if*. First, the *koso -e* and *only-if* have the similar contrasting implications: either that the consequent of the counterfactuals would be true if the antecedent were to be true, or the consequent would never be true. Also, both *koso -e* and *only-if* elicit the rhetorical reading given the right context. This is based on our observation that *koso -e* has the rhetorical implication (11i) as a default interpretation but does not exclude the non-rhetorical implication (11ii). The English *only-if* seems to have the non-rhetorical reading (11ii) as a default reading, but does not exclude the rhetorical reading (11i). The two interpretations, rhetorical reading and non-rhetorical reading of counterfactuals observed so far, cannot be an entailment

from *koso -e* or *only-if*, because construing a counterfactual under both a rhetorical reading and a non-rhetorical reading would be contradictory.

3 Previous account on *only if* and *koso -e*: theory of focus

As we have seen in the English *only if* subjunctives and Early Japanese *koso -e*, the subjunctive conditionals can be interpreted as under a rhetorical reading or a non-rhetorical reading. Let us examine how the previous analysis of English *only if* accounts for the possible readings of counterfactual conditionals. As for English *only if*, there is a debate on the status of the prejacent of *only if*. Von Stechow (1994) argued that *only* adds a further restriction to the *if*-clause (the restrictive clause of a conditional modality). I argue that the theory of focus accounts for the non-rhetorical reading of *koso -e*, but not the rhetorical counterfactual. The reason is that the rhetorical counterfactuals can neither entail nor presuppose the prejacent, whereas the prejacent of English *only if* is entailed or presupposed, according to the semantics of *only* associated with focus.

3.1 The prejacent of *only if*

The English *only-if*, which expresses a rhetorical counterfactual, is a type of conditional, in which the adverbial *only* modifies the *if*-clause. First, let us see the semantics of *only* in single sentences.

Horn (1969, 1996) argued that English *only* conventionally entails the exclusive implication but does not entail the prejacent.

- (12) a. Only John passed the exam.
 b. No one other than John passed the exam. (exclusive implication)
 c. John passed the exam. (prejacent implication)

In (12a), the subject DP [John] is focused and is associated with *only*. Horn claimed that (12a) always entails (12b), but not (12c). The basic position of Horn is that *only* sentences do not entail prejacent as represented in (12c) and that *only* sentences presuppose an existence of an individual which makes the prejacent true. Atlas (1993, 1996), on the other hand, claimed that the prejacent is entailed when the focused phrase is an individual constant. The two claims seem to contradict, since Horn claimed that the prejacent proposition is not entailed while Atlas assumes that the prejacent is entailed. For Horn, the entailment of *only* sentence in (12a) is equivalent to (12b). For Atlas, the entailment of (12a) is (12c).

The prejacent is even more problematic with the semantics of *only* in *only if*. Von Stechow (1994) argued that *only* functions to restrict the restrictor of the conditional, *if*-clause. However, if *only* in *only if* is restricting the *if*-clause, *only-if* clause should entail *if*-clause; but it doesn't. The restrictions imposed by *if*-clause are neither entailed nor presupposed by the restrictions imposed by *only-if*.

- (13) Only if John passed the final exam would he graduate.
 \nRightarrow if John passed the final exam, he would graduate.

In addition, von Fintel (1999) argued that *only* is Strawson Downward Entailment (DE), by which he accounts for the behavior of Negative Polarity Item (NPI) in the scope of *only*. Since the behavior of NPI is not the topic of this paper, let us simply examine the nature of Strawson valid inference. According to this theory, *only* adds strengthening, and it shows Strawson validity. Let us see how Strawson validity is defined:

- (14) Strawson validity (Fintel 1999: (19))
 An inference $p_1 \dots p_n \therefore q$ is Strawson-valid iff the inference $p_1 \dots p_n S \therefore q$ is classically valid; where S is a premise stating that the presuppositions of all the statements involved are satisfied.

Simply stated, Strawson valid inference is an inference in which all the premises of the antecedent are presupposed. This inference can be applied to the restrictor of *every* and *only if*, when the quantifier strengthens the domain of quantification specified by the restrictor.

- (15) a. Every student took the exam.
 \Rightarrow Every student who is graduating took the exam.
 b. Only if the match had been scratched, it would have lighted.
 \Rightarrow Only if the match that is dry had been scratched, it would have lighted.

Let us examine how DE works (from the general to the specific) based on Strawson validity. In (15a), when the concept of “student” and all the premises for being a student, such as ‘x has not graduated yet’ are satisfied, it entails that “x took the exam.” In (15b), the inference from general to specific works when all the premises such that ‘x is dry’ is ‘x is in good condition’ are satisfied in addition to the proposition in the antecedent ‘x was scratched.’ The Strawson validity works in these scenarios.

However, the inference used in the rhetorical reading is not based on Strawson validity. The reason is that the rhetorical reading of *only if* does not presuppose the existence of the possible world in which the antecedent would hold. With *every*, the existence of students has to be presupposed and thus the existence cannot be cancelled as in (16a); while in (16b), the existence of possible truth of the *only if* clause can be easily cancelled.

- (16) a. #Every student passed the exam, but no student passed the exam.
 b. Only if the match had been scratched would it have lighted, but the match would never be scratched.

The difference between *every* and *only if* is that the prejacent or the subset of the prejacent is entailed with *every*, but the prejacent is not entailed with *only if*. This is summarized as follows:

- (17) a. Every student passed the exam. \Rightarrow Some student passed the exam.
 b. Only if the match had been scratched would it have lighted. \nRightarrow If the match had been scratched, it would have lighted.

This difference in presupposition and entailment between *every* and *only if* cannot be accounted for by the Strawson DE theory. However, it is important to note that not all *only if* sentences lack entailment of the prejacent. The lack of entailment of the prejacent in (17b) is associated with the rhetorical interpretation of *only if* in (18b). When the prejacent is entailed, it is associated with the non-rhetorical interpretation of *only if* as in (18a).

- (18) Only if A would B.
 a. A is true, therefore, B would be true. (non-rhetorical reading)
 b. A is not possibly true, therefore, B would NEVER be true. (rhetorical reading)

What it does not account for, therefore, is the rhetorical reading, which fails to show the existential presupposition that the antecedent would be true. In the non-rhetorical reading, the antecedent is considered possible/conceivable and all the preconditions for the antecedent are contextually presupposed. Thus, the reading in (18a) is Strawson valid, while the reading in (18b) is not.

3.2 The *koso* –*e* construction as a “focus construction in Old Japanese”

Now let us proceed to the previous studies of the semantics of *koso* –*e*. The *koso* –*e* construction is one of many variants of *kakari-musubi* phenomena. *Kakari musubi* describes a syntactic relation between *kakari* ‘hanging’ and *musubi* ‘tying/closing’ where the occurrence of *kakari* “focus particles” causes the sentence to end with a corresponding *musubi*, verbal conjugation form. Whitman (1997) proposed that *koso* forms a focus phrase and –*e* marks the domain of the focus closure. When *koso* hangs on a phrase of focus, and the rest of the closure represents “given” information.

Frellesvig (2010) translated “*p koso q–e*” as “It is p (and only p) that is q.” *Koso* is presumably a focus particle and the sentences containing *koso* consistently end with an “exclamatory” conjugation –*e* on the verb. The conjugation form is generally called IZEN ‘realis’ in Japanese grammar (which is often abbreviated as IZ). The IZ functions as ‘exclamatory’ when it has an assertion-like function: i.e. in concord with *koso* in the *koso* –*e* construction.

The Modern Japanese translation of *koso* –*e* is often translated into English as follows:

- (19) [*p koso q-e*] translates
 “*p* is *q*; (but non-*p* is non-*q*).”

This translation seems to have two components of meaning; the two parts seem to correspond to the preajacent implicature and the exclusive implicature of *only if*. Tsuta (2011) claimed that the contrastive effect of *koso* contributes to an implicature that “non-*p* is non-*q*.”

Hando (1993, 2003) divided the use of *koso -e* into three types. According to Hando’s classification, the meaning types of *koso -e* are the followings:

i) selection by comparison, ii) exclusive, and iii) non-restrictive (simple emphatic). These meaning types are illustrated in (20a-c), respectively.⁴

- (20) a. ... 露こそあはれなれ
 ...tuyu **koso** aware -nare
 ...dew koso interesting.ADN COP
 (Tsurezuregusa 21)
 ‘The dew moves me even more. (=the dew is the most delightful)’
 (Keene 1998: 22)

- b. ... 人こそ知らね、松は知るらむ
 ...pito **koso** sira -ne, matu pa siru ramu
 Person koso know NEG pine TOP know PCONJL
 imasi -to are -to apu koto yama -me.
 you and I and meet to stop CONJL
 (MYS 2: 145)
 ‘Men do not know it, but pine must know’
 (Levy 1981, I: 105)
 ‘No one knows (his spirit might come back) except the pines’
 (Honda 1967: 17)

- c. 月見ればちちに物こそ悲しけれ...
 Tuki mire -ba tidini mono **koso** kanasi kere
 moon look PROV many.ways things KOSO sad ACOP
 (Kokin 4: 193)
 ‘I am burdened with a thousand vague sorrows when I gaze upon the moon.’
 (McCullough 1985: 255)

Among these, the simple emphatic use in (20c) does not have exclusive implicature. The poem (20c) simply implies the preajacent: I am burdened with sorrows. Ohno (1993) described that diachronically, the simple emphatic use of *koso -e* is considered an innovative use. The emphatic effect of *koso -e* adds a

⁴ PCONJ present conjunctural; PROV provisional; ACOP adjectival copula; MPST modal past; AUX auxiliary

positive scalar implication to the degree of sorrow that the speaker is feeling. This type of *koso -e* forms an emphatic positive polarity item like “a thousand of” which can occur with positive polarity.

Now let us turn to the uses of *koso -e* in (20a), classified under “the selection by comparison.” This use of *koso -e* gives rise to the superlative-like interpretation. This scalar implicature can be observed in the poem like (21):

- (21) 花よりも人こそあだになりにつれ
 Pana yorimo pito **koso** adani nari ni kyere
 flower than perso koso short-lived become PERF MPST
 (Kokin 16: 850)

Lit: ‘A person became more short-lived than a flower (cherry blossoms).’
 ‘Before the cherry tree comes into bloom the planter is gone; (for which then should I yearn first? I wonder.)’

(Honda 1970: 219)

According to the literature, the short poem in (21) describes a planter who had planted a cherry tree. According to the annotation of the poem, the planter died unexpectedly when the tree came into bloom. The author of the poem in (21) thus expressed his/her sorrow at the news by stating that a person turned out to be more short-lived than flowers. The usual assumption is that flowers are short-lived; but in this poem, the speaker expressed that a person is actually the most short-lived. The focus closure is “x is short-lived” and there is an existential presupposition; and the speaker claims that a “person” is ranked first among all the items that are short-lived. This creates a comparison between a “person” and a “flower” which are both short-lived. When a “person” is focused, it entails the prejacent, a person is short-lived. Hando (1998:48) argued that in this use of *koso -e*, the *koso -e* statement implicates that there is non-*p* that is *q*. Applied to this case, “a person is the most short-lived” implicates that there is non-person (=flower) that is short-lived. That is, (21) does entail the prejacent, but does not have exclusive implicature, “a flower is not short-lived.” This use of *koso -e*, if my analysis is correct, has only the prejacent implicature in (19).

Now let us proceed to the “exclusive” use of *koso -e* in (20b). The exclusive use of *koso -e*, exhibited by (20b), is different from (20a) in that there is no scalar implicature. In addition, this type of *koso -e* is characterized by the existence of a contrastive proposition: in (20b), *pito* ‘person’ is contrasted with *matu* ‘pine’. Interestingly, the *koso -e* sentence “There is no person (that) knows” invokes contrast with an existential “a pine knows.” This indicates that the *koso -e* statement does not presuppose either the non-existence or the existence of x in “x knows.” Yet the prejacent “a person doesn’t know” is entailed from the *koso -e* statement in (20b). There is an exclusive implicature “non-person (=pine) knows,” but it is not an entailment.

Now let us examine the non-rhetorical counterfactual expressed in *koso -e*, in which *koso* modifies a conditional adverbial clause. The example is given in (22). In (22), “if I died” is contrasted with “if I was alive”:

- (22) 死なばこそ相見ずあらめ生きてあらば白髪児らに生ひざらめやも
 Sina -ba **koso** api mi zu ara me,
 die COND *koso* recip see NEG AUX CONJL
 ikite ara -ba sirokami kwora ni opi zara me.yamo
 live be COND grayhair children DAT grow NEG CONJ.RQ
 (MYS 16: 3792)

Lit: ‘If I died, I wouldn’t see my children, but if I were alive, wouldn’t I see my children grow gray hair?’

In the above example, *koso* is attached to the antecedent of the conditional and *-e* is attached to the end of the main clause as in (23). The two implicatures of (22) according to (19) are the following:

- (23) a. [*p* is *q*]: if [I die]_{*p*}, [I would not see my children grow gray hair]_{*q*}.
 b. [non-*p* is non-*q*]: as long as [I am alive]_{NON-*p*}, [I would see my children grow gray hair]_{NON-*q*}.

The *koso -e* statement in (22) entails the prejacent in (23a), contrary to the speaker’s expectation that he will be more likely to see his children grow their gray hair. The prejacent is entailed because the antecedent “if I died” describes a conceivable event and so is the consequent “I would not see my children grow their gray hair.” However, there is a certain strengthening added into the inference from the antecedent to the consequent. One of the preconditions to be inferred from the condition “if I died” is that the speaker unexpectedly dies young. If he lived long and died, he would see his children grow their gray hair. Thus, the preconditions such as “I am not old,” or “my children are alive,” are presupposed. This effect of strengthening is to be found in the context, elicited by scalar implicature of *koso -e*. Assuming all these are true, Strawson DE seems to work.

- (24) [x died] ***koso*** [x will see x’s children grow gray hair]-***e***
 ⇒If x died, and x is young and x’s children are alive, x will not see them grow gray hair.

The semantics of the non-rhetorical counterfactual follows from Strawson DE. As with (20b), the prejacent is entailed in (22).

Let us proceed to the rhetorical counterfactual repeated from (3a) in (25):

- (25) ひさかたの天のみ空に照る月の失せなむ日こそ吾が恋やまめ
 Pisakata.no ama.no misonra ni teru tukwi no
distant heavenly sky DAT shine moon GEN
 use -na -mu pi **koso** a ga kwopwi yama -me
end PERF CON. day koso I GEN longing stop CONJ
 (MYS 12: 3004)

‘On the very day when the moon that shines in the broad heavens ceased to be, my affection would come to an end.’

(adapted from Suga 1991: Part II, 364)

This *koso -e* should be in the “exclusive” use, under the classification given by Hando (1993), as this *koso -e* only invokes a sense of exclusion. Let us spell out the prejacent implication [*p* is *q*] and the exclusive implication [non-*p* is non-*q*] in (26):

- (26) a. [*p* is *q*]: if [the moon disappears]_{*p*}, [I stop longing for you]_{*q*}.
 b. [non-*p* is non-*q*]: as long as [the moon exists]_{NON-*p*}, [I wouldn’t stop longing]_{NON-*q*}.

The exclusive implication is represented in (26b), which is equivalent to “as long as the moon exits, I would not stop longing for you.” The prejacent implication represented in (26a) cannot follow from the rhetorical reading expressed in (25). Therefore, the Strawson DE fails here, as illustrated in (27):

- (27) [the moon disappeared]-*koso*, [would I stop longing for you]-*e*
 ≠ If the moon disappeared, and you aged and died, I would stop longing for you.

Even if presuppositions of *p* (= “the moon disappears”) are satisfied, such as “you aged” and “you died,” etc., we cannot locate any world in which *p* (= “the moon disappears”) is satisfied. This is because *p* would be true in those worlds that have nothing common with the worlds we consider conceivable. This lack of the speaker’s belief that *p* would be true at any possible world further implies that there is no existence of a possible world in which *q* (= “I stop longing for you”) holds. It became clear that the prejacent in (26a) is not entailed by the rhetorical reading of the *koso -e* construction. The rhetorical reading of counterfactual in the *koso -e* construction in (25) only implies (26b).

Let us summarize the semantics of *koso -e*. We have seen that the *koso -e* in the “selection by comparison” use has the existential presupposition, and only entails its prejacent. The *koso -e* in the “exclusive” uses has exclusive implicature. While the non-rhetorical counterfactuals in *koso -e* entails its prejacent, the rhetorical counterfactuals in *koso -e* doesn’t. I showed that the English *only if* and the Japanese *koso -e* are both analyzed by the theory of focus in the previous studies. I argued that the theory of focus can account for the non-rhetorical counterfactuals expressed by *koso -e*. However, I claimed that the

theory of focus cannot account for the emphatic effect of *koso -e* expressed in the rhetorical counterfactuals, as it lacks an existential presupposition and fails to entail its prejacent.

4 Proposal: The semantic account for rhetorical counterfactuals

In the last section, we have seen that rhetorical counterfactuals have the truth conditions equivalent to “only if,” but the semantics of focus cannot explain the lack of existential presupposition of rhetorical counterfactual antecedent. In this section, I propose truth conditions of *koso -e*, which is equivalent to *only-if* counterfactuals, and claim that the rhetorical reading results from the application of accessibility (i.e. conceivability) to the closest worlds, which is defined by what is conceivable to the speaker of the context world.

4.1 Truth conditions of *koso -e* counterfactual conditionals

Let us see how Lewis’s (1973: 16) stated truth conditions of *if* counterfactuals. Though the statement is slightly modified, Lewis’s truth conditions of *if* counterfactuals consist of the following two cases in (28):

- (28) $\llbracket \text{If it were the case that } p, \text{ it would be the case that } q \rrbracket^C = 1$, iff either
- i. p is impossible (=there is no world in which p is true among the closest worlds to w , or
 - ii. p is possible (=there is at least one world in which p is true among the closest worlds to w_i), and $p \rightarrow q$ (if p , then q) holds at all the worlds closest to the actual world w_i

According to (28), a counterfactual of the form “if it were the case that p , it would be the case that q ” is true if and only if one of the following holds. The counterfactual is vacuously true when the antecedent p is impossible. Or the counterfactual is non-vacuously true if and only if for all the closest worlds in which p holds, the material conditional $p \rightarrow q$ (‘if p , then q ’) holds. Now let us assume that *koso -e* counterfactuals are equivalent to *only if* counterfactuals and state the truth conditions of *koso -e* counterfactuals as in (29).

- (29) $\llbracket p - \mathbf{koso} \ q - \mathbf{e} \rrbracket^C = 1$, iff either
- i. p is impossible (=there is no world in which p is true among the closest worlds to w , or
 - ii. p is possible (=there is at least one world in which p is true among the closest worlds to w), and $q \rightarrow p$ (q only if p) holds at all the worlds closest to the actual world w .

According to (29), the counterfactual of the form “ p -*koso* q -*e*” or equivalently, “only if it were the case that p would q ” is true if and only if one of the following two cases hold. The counterfactual is vacuously true when the antecedent p is

impossible. Or the counterfactual is non-vacuously true if and only if for all the closest worlds in which p holds, the material conditional $q \rightarrow p$ (' q only if p ') holds. How to derive this material conditional from the semantics of *only* is beyond the scope of this article.

The difference between (28) and (29) is that the antecedent p functions like a sufficient condition in (28), while the antecedent p functions as a necessary condition in (29). This difference is projected on the ordering source of the propositions that potentially cause the truth of the consequent q . The necessity of p can be reinterpreted as a scalar implicature of p : p is the least likely proposition among all other conditions that potentially contribute to the truth of q , but needs to be satisfied in order for q to be true. This makes the closest world in which p holds to be the furthest to the actual worlds among all other closest worlds in which all other conditions would hold.

There are two problems with the truth conditions of (29) in application to the rhetorical counterfactuals. First, the truth conditions in (29) will incorrectly predict that the rhetorical counterfactuals will be vacuously true. Rhetorical counterfactuals, according to our intuition, are different from counterfactuals with "impossible" antecedent. Secondly, the rhetorical/non-rhetorical distinction is unaccounted for by the truth conditions of the counterfactuals. In the next section, I will claim that the antecedent is not "impossible"; but it is "inconceivable," which is context-sensitive.

4.2 Conceivability as a contextual restriction

I propose that the speaker's application of accessibility (i.e. "conceivability" in the case of counterfactuals) determines whether a counterfactual proposition receives the rhetorical reading or the non-rhetorical reading. In other words, whether the given counterfactual conditional has a rhetorical reading or a non-rhetorical reading depends on the speaker's conception of conceivability, which is unspecified by a subjunctive.

Let us define the notion of conceivability as a contextual restriction imposed by the speaker who is the agent of utterance in that context as follows:

$$(30) \quad \text{Conceivable}_{C_i} = \{p: p \text{ is compatible with what } x_i \text{ considers conceivable at } w_i\}$$

Conceivability is a function, which gives us a set of propositions that are compatible with what the speaker of the context (represented by x_i) considers possible in the conceivable future or in the actual world (represented by context world w_i). The basic idea of accessibility came from Kratzer (1977, 1981); here we consider that conceivability is uniquely determined by the speaker in the context. Let us represent the set of conceivable propositions as $\cap \text{Conceivable}_{C_i}$. Any conceivable proposition is a member of (or compatible with) all the propositions that are considered conceivable by the speaker at the context world. Let us suppose p is an antecedent of a non-rhetorical counterfactual.

Incorporating the Kratzer's (1979) notion of conditional modality, let us assume that the antecedent of conditionals function as a restrictor. Let us further assume that conceivability is applied to the antecedent of a counterfactual conditional in order to restrict the relevant possible worlds by context:

- (31) There is at least one world w such that $w \in \cap \text{Conceivable}_C$ and $\llbracket p \rrbracket^w = 1$.

Let us assume that when the speaker considers a counterfactual antecedent conceivable, the antecedent p is added to a set of propositions of what the speaker considers conceivable. Rhetorical counterfactuals have an antecedent that is "inconceivable" from the speaker's point of view; the speaker doesn't take the antecedent seriously and the p is not added to the set of conceivable propositions. Now we can express the difference between conceivable and inconceivable antecedents of counterfactual conditionals as follows:

- (32) Conceivable antecedent
There is a world, w , such that $w \in \cap \text{Conceivable}_C$ and $\llbracket p \rrbracket^w = 1$.
- (33) Inconceivable antecedent
There is no world, w , such that $w \in \cap \text{Conceivable}_C$ and $\llbracket p \rrbracket^w = 1$.

For the purpose of the article, I simply adopt the notion of "closest world" as the best world(s) in which the counterfactual proposition would hold by the relative similarity to the actual world. In light of the inconceivable type of counterfactual conditionals, the counterfactual conditionals may have the closest world(s) outside of the accessible (i.e. conceivable) worlds. In this sense, conceivability is not a typical accessibility relation that restricts the domain of possible worlds in which the proposition would hold.

In Lewis's (1973) truth conditions of counterfactuals, the closest world overlaps with the set of accessible worlds. Thus, if conceivability is a kind of accessibility relation, it follows that the closest world is always selected out of the accessible worlds: the worlds in which the conceivable proposition is true. Let us take the non-rhetorical reading of an *only-if* counterfactual, "Only if the butter had been heated up to 150°F would it have melted." Under the non-rhetorical reading, the speaker believes that there is a possibility that the consequent would be true. We can consider the non-rhetorical reading as a realization of a subjunctive conditional in which the speaker implicitly assumes that there is a closest world among conceivable worlds. Thus, in this case, there is an implication that there is a world in which the antecedent would hold:

- (34) There is a world w such that $\llbracket \text{the butter was heated up to } 150^\circ\text{F} \rrbracket^w = 1$ among those that speaker x_i considers "conceivable" at w_i . Namely, $\{w: w \in \cap \text{Conceivable}_{C_i} \ \& \ \llbracket \text{the butter was heated up to } 150^\circ\text{F} \rrbracket^w = 1\} \neq \emptyset$.

On the other hand, the rhetorical reading of *koso -e* counterfactual has an inconceivable antecedent. In this case, the closest world in which the antecedent holds is not selected from the accessible worlds. We can consider the rhetorical reading as a subjunctive conditional with no existential import. Thus, the lack of the speaker's belief that the antecedent is conceivable can be formalized as in (35):

- (35) There is no world in which $\llbracket \textit{the moon disappears} \rrbracket^w=1$ among those that x_i considers “conceivable” at w_i . Namely, $\{w: w \in \bigcap \text{Conceivable}_{c_i} \ \& \ \llbracket \textit{the moon disappears} \rrbracket^w=1\} = \emptyset$.

Let us suppose that “conceivability” is tied to strictness of the antecedent: how strict the counterfactual assumption is in the speaker's view of similarity to the actual world. Then, we can say that the counterfactual antecedent p is stricter when the speaker considers p to be inconceivable than when the speaker considers p to be conceivable. Thus, the degree of strictness of the counterfactual antecedent can vary depending on how conceivable the truth of the antecedent proposition would be from the speaker's view of the world. This notion of strictness has not been clearly expressed in Lewis's truth conditions of counterfactuals, but it can be a contextual restriction added to the accessibility relation. Then, we can say that what is conveyed by a rhetorical counterfactual is the speaker's sense of accessibility of the closest world: the non-rhetorical reading is interpreted to be what might be the case (i.e. presence of conceivability of p) in the normal sense of counterfactuals, while the rhetorical reading is interpreted as what would never be the case (i.e. the absence of the conceivability of p) in the speaker's view of the world.

To summarize, we have discussed how conceivability gives rise to the presence/absence of an existential presupposition in the non-rhetorical/rhetorical readings of the counterfactuals. This explains why the rhetorical reading cannot be felicitous in a context where the non-rhetorical reading is salient.

4.3 Derivation of non-rhetorical reading of *koso -e*

Let us suppose that a counterfactual antecedent is felt to be conceivable by the speaker. Then, it follows that the closest world in which the antecedent holds is a member of the conceivable worlds. But what kind of world is the closest (best) world in the non-rhetorical reading?

This part of the implication is not clearly stated in the truth conditions of *koso -e* subjunctive conditionals in (29), as the material conditional of *only if*, “the truth of q implies the truth of p ” does not refer to anything about the hypothetical situation in which p were the case. This is because we cannot pre-determine how strict p (the antecedent) is: under what condition p would be true in the speaker's assumption in the context. For example, we cannot decide how strict the counterfactual antecedent such as “if the moon disappeared” is without the context. The speaker may be thinking of one of the conceivable situations

where the moon would disappear behind the cloud, or one of the inconceivable situations in which the moon would become invisible or move away. Thus, as Lewis (1973: 13) described counterfactuals as “variably strict conditionals,” the counterfactual conditionals are vague because of their contextual dependency on how strict the counterfactual proposition is. The context uniquely determines under what conditions and circumstances the counterfactual would hold. The question is how strict the counterfactual antecedent is in the non-rhetorical reading, and how we can express the strictness of the antecedent of the counterfactual.

Let us suppose that the counterfactual conditional of “*p-koso, q-e*” is uttered in such a context in which the truth of *p* requires that there are certain set of preconditions, say, $\{r_1, r_2\}$, distinct from *p*, and the preconditions must be satisfied in conjunction with the antecedent *p*. For example, take Goodman’s (1946: 8) example: “(Only) if the match had been scratched, would it have lighted.” Goodman states that there are true statements such as “the match is well made,” “the match is dry,” “oxygen enough is present,” etc., that can be inferred from “the match is scratched.” Let us further assume that there is a scalar implicature in *koso -e*, which picks up the most unlikely condition as the antecedent of the conditional. Namely, *p* is the most unlikely condition among all the preconditions inferred from the context.

Now let us examine what the possible preconditions are that can be inferred from the context in which “*p koso q-e*” is uttered. In (36) below, let me repeat the translation of the non-rhetorical counterfactual in *koso -e* from (22). In (36), *koso* is attached to the antecedent of the conditional and *-e* is attached to the end of the main clause:

(36) [[I die-*koso*], I would not see my children (grow gray hair)-*e*]

There are preconditions to be inferred from the context of utterance. In this case, the speaker is assuming the counterfactual situation where he would unexpectedly die young; if he lived long and died, he would see his children grow their gray hair. Thus, we infer that there are preconditions such as “I am not old,” or “my children are alive,” and so on. The truth of non-rhetorical counterfactual in *koso -e* can be represented as in Figure 1:

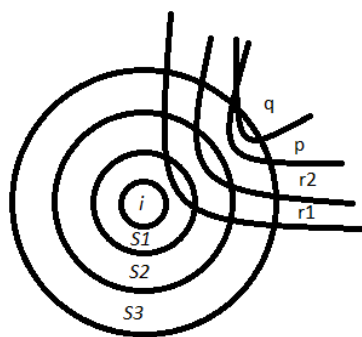


Figure 1. Non-rhetorical reading of *p-koso q-e*

In Figure 1, the closest worlds in which the antecedent holds are those in which all of the preconditions, (in this case, $\{r_1, r_2\}$) are satisfied. The possible worlds are ordered by similarity to the actual world with respect to the preconditions. When the speaker utters the counterfactual conditional with p as an antecedent, there is a presupposition that all the preconditions $\{r_1, r_2\}$ had already been established as common knowledge between the speaker and the hearer. In Figure 1, the sphere S_3 is the closest to the context world i in which p as well as all the preconditions $\{r_1, r_2\}$ are satisfied. The closest worlds in which the speaker dies are limited to those worlds in which the speaker dies young, and his/her children are alive, so that he wouldn't see the children's gray hair grow. Let us strengthen the definition of the best/closest world to reflect the truths of preconditions of p as in (37).

- (37) $[[\text{Closest}(p)]]^C$ is defined only if there is at least one possible world v , such that $v \in [[\text{Closest}(p \wedge r_1 \wedge \dots \wedge r_n)]]^C$, where $\{r_1, r_2, \dots, r_n\}$ are preconditions of p .

In (37), the closest world is defined by the context (i.e. the actual world and the speaker). The closest world has to be as strict as those in which all the preconditions $\{r_1, r_2\}$ and p (the antecedent) hold true, and that the world is stricter than any other world in which p does not hold. The truth conditions state that a counterfactual conditional [*p-koso q-e*] is true if and only if for all the worlds in which q holds are among the worlds in which p holds. The truth conditions do not directly refer to whether the closest world(s) in which the antecedent holds is/are conceivable. Let us apply the contextual restriction of conceivability to the closest world. When the closest world is assumed among the conceivable worlds, the truth condition in (37) has the following implication.

- (38) Suppose $\{w: w \in \cap \text{Conceivable}_C \ \& \ \llbracket p \rrbracket^w = 1\} \neq \emptyset$. ①
 Let us define the closest world v such that $v \in \llbracket [\text{Closest}(p)] \rrbracket^C$
 By application of ① to v
 $v \in \{w: w \in \cap \text{Conceivable}_C \ \& \ \llbracket p \rrbracket^w = 1\}$
 By application of strengthened definition of the closest in (37),
 $v \in \{w: w \in \cap \text{Conceivable}_C \ \& \ \llbracket p \rrbracket^w = 1 \ \& \ \llbracket [r_1 \wedge \dots r_n] \rrbracket^w = 1 \}$
 $\llbracket [r_1 \wedge \dots r_n] \rrbracket(v) = 1$ and $\llbracket p \rrbracket(v) = 1$.
 Then, $\llbracket q \rrbracket(v) = 1$.

Assume that the antecedent p is conceivable in the context. Then there is at least one closest world in which p holds among the conceivable worlds defined by the context. With the strengthened definition of “closest,” the closest world of a (subjunctive) proposition p in the given context is as strict as those where all the preconditions $\{r_1, r_2, \dots\}$ are satisfied. In other words, the strengthened definition of the closest world ensures that all the preconditions are assumed to be true at the context, and the antecedent p is to hold at the closest world. Thus, the truth of q naturally follows. This strengthened definition of the closest world is what is expected from Strawson validity. The strengthening in the non-rhetorical reading comes from the existence of preconditions underlying the truth of p .

To summarize, I have derived the non-rhetorical counterfactual reading from (pragmatically) strengthened definition of the closest world, and the assumption that the antecedent of the counterfactual is a conceivable proposition.

4.4 Derivation of rhetorical reading of *koso -e*

I argued that conceivability is a contextual restriction that determines how strict the counterfactual antecedent is with respect to what the speaker considers to be conceivable in the context. We have seen that in the rhetorical reading of counterfactuals, the speaker assumes that the antecedent is “inconceivable.” In other words, when the antecedent of the counterfactual conditionals is “inconceivable,” the counterfactual obtains rhetorical reading.

Rhetorical counterfactuals are distinguished from non-rhetorical counterfactuals by the absence of the closest world among the conceivable worlds. Let us see how this assumption works in the rhetorical reading of the *koso -e* counterfactuals. In the rhetorical counterfactual, there is no closest world in which the antecedent holds among all the situations that the speaker considers conceivable. This concept can be represented as follows:

- (39) Suppose p is not a conceivable proposition. Then,
 $\{w: w \in \cap \text{Conceivable}_C \ \& \ \llbracket p \rrbracket^w = 1\} = \emptyset$

A proposition p is inconceivable if and only if there is no possible world in which p holds among all the situations in which the speaker considers conceivable. Let us apply (39) to the closest world and what follows from the truth conditions of the counterfactuals of *koso -e* given in (40).

- (40) $\llbracket p - \mathbf{koso}, q - \mathbf{e} \rrbracket^C = 1$ iff for some sphere S in S_i which contains the closest world defined by the context, $\{w: \llbracket q \rrbracket^w = 1\} \subseteq \{w: \llbracket p \rrbracket^w = 1\}$. ②
 Let us apply (39) to the truth condition of *koso -e*. From (39),
 $\{w \mid w \in \cap \text{Conceivable}_C \ \& \ \llbracket p \rrbracket^w = 1\} = \emptyset$. ③
 Applying ③ to ②, the right hand of the set
 $(\{w: w \in \cap \text{Conceivable}_C \ \& \ \llbracket p \rrbracket^w = 1\})$ is empty.
 $\{w: w \in \cap \text{Conceivable}_C \ \& \ \llbracket q \rrbracket^w = 1\} \subseteq \emptyset$
 The set of worlds in which q is true is a subset of the empty set.
 Therefore,
 $\{w: w \in \cap \text{Conceivable}_C \ \& \ \llbracket q \rrbracket^w = 1\} = \emptyset$.

Since p is a superset of q as defined in ②, q would be an empty set when p is. Let us apply (40) to the following example of the rhetorical counterfactual in *koso -e*:

- (41) $\llbracket [\text{the moon disappears} - \mathbf{koso}], \text{I would stop longing for you} - \mathbf{e} \rrbracket$

Let us examine under what conditions and in what circumstance “the moon disappears” might hold when we take “the moon disappears” to be a conceivable proposition. We can imagine the counterfactual situations in which “my love ages” or “my love dies” might hold, and “the moon disappears” holds in some of those situations. However, if the speaker assumes that the counterfactual situation in which “the moon disappears” is inconceivable, “the moon disappears” is not going to be true in any conceivable worlds in which “my love ages” or “my love dies” might hold. Therefore,

- (42) $\llbracket [\text{the moon disappears} \ \mathbf{koso}], \text{I stop longing for you} - \mathbf{e} \rrbracket^C = 1$ iff
 for some sphere S in S_i which contains the closest p -world,
 $\{w: w \in \cap \text{Conceivable}_C \ \& \ \llbracket \text{I stop longing for you} \rrbracket^w = 1\} \subseteq$
 $\{w: w \in \cap \text{Conceivable}_C \ \& \ \llbracket \text{the moon disappear} \rrbracket^w = 1\}$ ④
 Suppose there is no world in which the antecedent holds among conceivable worlds. Then,
 $\{w: w \in \cap \text{Conceivable}_C \ \& \ \llbracket \text{the moon disappears} \rrbracket^w = 1\} = \emptyset$. ⑤
 From ④ and ⑤,
 $\{w: \llbracket \text{I stop longing for my love} \rrbracket^w = 1\} \subseteq \emptyset$.
 $\{w: \llbracket \text{I stop longing for my love} \rrbracket^w = 1\} = \emptyset$.
 Namely, there is no world in which $\llbracket \text{I stop longing for my love} \rrbracket^w = 1$.

In (42), the value assignment of any conceivable worlds cannot assign truth to the antecedent of the rhetorical counterfactual, and therefore, the truth conditions of the counterfactual in (42) conclude that there is no conceivable world in which the consequent would hold. This semantics meets our intuition. Thus, we have successfully derived the rhetorical reading of the counterfactual. However, note

that the truth conditions of the counterfactuals in (42) may not render non-vacuous truth, since the closest world in which the antecedent holds is not one of the accessible worlds. I will leave this issue for future research.

To summarize, I have shown that the rhetorical reading of *koso -e* does not entail the prejacent. The rhetorical reading is derived from the truth conditions of subjunctive conditionals in *koso -e* with a contextual restriction, called conceivability. Conceivability applies to the closest world, whose existence is presupposed by the semantics of the subjunctive conditionals. The result is exclusion of the closest world from the accessible worlds. This naturally leads to the lack of existential presupposition, which gives rise to the implication that the consequent would never hold.

5 Conclusion

I have shown that counterfactual conditionals have contrasting interpretations. The rhetorical reading arises when the speaker intends to convey the message that the consequent would NEVER be true; while the default reading is non-rhetorical, in which the speaker assumes that the consequent would be the case if the antecedent were true. I have argued that counterfactual interpretations in the *koso -e* construction have the semantics equivalent to *only-if* subjunctives, and that the non-rhetorical or the rhetorical reading of counterfactuals are implicational. I have argued that the non-rhetorical counterfactuals are Strawson valid: the counterfactual is true in the context in which all the preconditions are presupposed to hold and the addition of the truth of the antecedent would lead to the truth of the consequent. Also, I argued that the rhetorical reading of counterfactuals arises when the speaker considers the counterfactual antecedent to be “inconceivable.” The notion of being inconceivable consists of the speaker’s assumption that the world in which the antecedent holds is more remote than all the conceivable worlds. I showed that conceivability is a contextual restriction on the closest worlds and determines how strict the counterfactual antecedent is based on comparative similarity to the actual world.

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