

The semantics of determiner phrases in Okanagan¹

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The semantics of determiners and determiner phrases (DPs) in Okanagan Salish is largely unknown, and apart from N. Mattina's (2006) study of Moses-Columbian determiners, there are no other systematic investigations into the semantics of determiners for Southern Interior Salish languages. As such, this paper aims to contribute to our knowledge of Southern Interior determiners, and to help clarify how they compare with determiners in Northern Interior (Matthewson, 1998) and Central Salish (Gillon, 2006) languages. In this paper, I claim that the Okanagan determiner *iʔ* is not simply a case marker, but is a non-deictic context-sensitive domain restrictor, in some ways similar to Skwxú7mesh deictic determiners (Gillon, 2006). I claim that the oblique marker is semantically vacuous.

1 Introduction

Okanagan, Moses-Columbian, Coeur d'Alene and the dialect continuum known as Spokane-Kalispel-Flathead comprise the Southern Interior sub-branch of the Salish language family. Okanagan is spoken in South-central British Columbia and North-central Washington. It is critically endangered, being spoken by only about 400 speakers. The Upper Nicola dialect of Okanagan is centered around the Douglas Lake (Spáx̣mən) and Quilchena (Nłq̣ífməlx) reserves, close to the city of Merritt, B.C., by perhaps as few as 12 speakers.

Okanagan, and its sister languages of the Southern Interior, differ in many ways from Northern Interior and Central Salish languages. In particular, the Upper Nicola dialect of Okanagan makes use of only one determiner, *iʔ*.² This contrasts starkly with Northern Interior languages such as St'át'imcets, for example, which has an elaborate determiner system (van Eijk, 1997; Matthewson, 1998), and somewhat less starkly with Nłeʔkepmxcín and Secwepemcstín, which each have two referential determiners, and one non-referential determiner (Kroeber, 1999, 70).

¹My research has been supported through grants from the Jacobs Research Fund and the American Philosophical Society. I wish to thank my main consultants, Lottie Lindley and Sarah McLeod, for their patience and willingness to work with linguists.

²Colville-Okanagan utilizes a second determiner *ʔəʔ* (Mattina, 1973). Upper Nicola speakers apparently do not allow *ʔəʔ* to take nominal complements except in copular sentences. Given this very limited distribution before nominals, the unclear syntactic status of copular structures, and the fact that *ʔəʔ/ʔaʔ* is used as a clausal subordinator in other contexts, I analyze it as a complementizer for the Upper Nicola dialect.

Given the paucity of determiners in Okanagan and the Southern Interior generally, the expectation is that the wide range of semantic distinctions encoded by Northern Interior and Central Salish determiners (e.g. deictic features (Gillon, 2006), assertion-of-existence (Matthewson, 1998), etc.) will have collapsed for Okanagan, and that certain distinctions and features may be altogether absent. This is in fact what we find. First of all, the Okanagan determiner *i?* is not a spatial or temporal deictic. This is perhaps unsurprising, since there is no other determiner with which it might deictically contrast. Secondly, *i?* is not tied to speaker-knowledge of a referent, unlike St'át'imcets determiners (Matthewson, 1998); however, as in Moses-Columbian DPs (Mattina, 2006, 129), there is a *tendency* for Okanagan *i?* DPs to be used in referential contexts.

Based on a range of tests, I claim that Okanagan *i?* is a contextually sensitive domain restrictor. Essentially, a choice function (Reinhart, 1997) associated with the determiner selects one singular or plural individual from the intersection of the contextual and the nominal domains, as shown in the following representation from Gillon (2006):

$$(1) \quad \llbracket i? \rrbracket = \lambda P[f(\lambda x[P(x) \wedge C(x)])]$$

The Okanagan data support Gillon (2009) who claims that the universal semantic core of determiners is domain restriction, with the possibility of additional language-specific variations, but question Gillon's (2006, 2009) proposal that deictic features on a determiner are integral to a DP's ability to take widest scope, since Okanagan *i?* is not obviously deictic, yet allows for widest-scope readings. Okanagan *i?* DPs, unlike St'át'imcets assertion-of-existence DPs (Matthewson, 2008), may take narrow scope with respect to negation and other operators, and also allow e-type and individual concept readings. These facts suggest that *i?* is non-deictic, that *i?* DPs are temporally free and may function as bound variables, and that their referents may vary across situations.

There are interesting restrictions on variable binding, however, since like St'át'imcets assertion-of-existence DPs, bound-variable readings of DPs in distributive contexts are only licensed in the presence of overt possessor morphology on the NP (Matthewson, 1999, 2008). The absence of clear distributive readings for non-possessed Okanagan DPs is evidence that they are in fact scopally inert (Matthewson, 1998; Davis, 2010), and are not generalized quantifiers (Barwise and Cooper, 1981). Thus, while an *i?* DP may be bound in the presence of a higher temporal or modal operator, in the absence of such an operator, it can only denote one contextually relevant singular or plural individual.

While A. Mattina (1973) states that "*i?* marks a definite complement", and indeed it is commonly found in definite contexts, I will show that definiteness cannot be a semantic feature of the Okanagan determiner *i?*, since it may easily surface in a variety of indefinite contexts. Okanagan *i?* shares this property with St'át'imcets *ti...a* DPs and Skwxú7mesh deictic determiners. Gillon (2009) argues that definiteness is not a primitive feature, but is rather the combined result of domain restriction with an additional uniqueness requirement. For

determiners in Skwxú7mesh and Okanagan, uniqueness is not a requirement, but a cancellable implicature.³

Not all nominal arguments in Okanagan are introduced by *iʔ*: the case marker *t* designates a nominal as a core oblique (Kroeger, 1999, 42). The distribution of the determiner *iʔ* and the oblique marker *t* is syntactically driven: it is fully predictable. By way of example, a formally transitive predicate will always select for an object introduced by *iʔ* (2a,3a), but there is often an analogous, semantically similar sentence whose main predicate is morphologically intransitive, which will always select for an oblique object introduced by *t* (2b,3b).^{4,5}

- (2) a. kʷúl-nt-n iʔ yámχʷaʔ.
 make-DIR-1SG.ERG DET cedar bark basket
 I made the basket.
- b. kn kʷúl-əm t yámχʷaʔ.
 1SG.ABS make-MID OBL cedar bark basket
 I made a basket.
- (3) a. ac-χaʔχaʔ-st-ín iʔ kʷəckʷáct iʔ sqəltmíxʷ.
 CUST-look.for-CAUS-1SG.ERG DET strong DET man
 I'm looking for the strong man.
- b. kn sc-χaʔχaʔ-míxaʔx t kʷəckʷáct t sqəltmíxʷ.
 1SG.ABS IMPF-look for-INTR OBL strong OBL man
 I'm looking for a strong man.

Nominal phrases introduced by *t* differ both syntactically and semantically from those introduced by *iʔ*. *t* is not a determiner since it may co-occur with *iʔ* in specific environments (cf section 2). Syntactically, oblique-marked objects in Okanagan are oblique phrases (KPs), and so contain less structure than DPs (Lyon, 2011), but still bear certain semantic resemblances to non-referential, *k*-type DPs in the Northern Interior languages. N. Mattina (2006, 126-128) states that Moses-Columbian obliques are “semantically oblique in the sense that they consistently show the partiality of reference of English *some* and the partitive use of plural and mass nouns...” and are “consistently nonspecific in their interpretations.” Mattina’s observation accurately describes oblique objects in Okanagan as well, and I will present data to that effect.

³As N. Mattina (2006) notes, determiners in Moses-Columbian are compatible with both specific or non-specific readings, encoding “only whether a phrase may have a specific interpretation.”

⁴By *formally transitive*, I mean roots and stems affixed by one of several transitivity markers, e.g. *-nt-*, *-st-*, *-t-*, *-xit-*. By *morphologically intransitive*, I mean roots and stems affixed by an intransitivity marker, e.g. middle suffix *-m* or intransitivity marker suffix *-(míx)aʔx*. Only middles with absolutive subjects will select for oblique objects, middles with possessor subjects will select for *iʔ* DP objects, which is evidence that this latter class is logically transitive (Mattina, 1982, 1993b).

⁵See the end of the paper for a list of abbreviations used, and a summary chart of the Okanagan pronominal paradigms.

I claim that *t* is always semantically vacuous. This allows us to analyze the oblique object marker *t* as the same morpheme as the attributive marker *t*, not to mention the *t* which marks the ergative argument in passive contexts. The result is that *t* is a case-assigner in certain syntactic positions (i.e. as a K head), but not in others (i.e. as a marker of attributive modification). When *t* surfaces in contexts involving attributive modification, it is an overt indicator of predicate modification (Heim and Kratzer, 1998; Koch, 2006). When *t* is functioning as a case marker, and there is no co-occurring determiner, *t* indicates that the oblique nominal is semantically incorporated (Chung and Ladusaw, 2004).⁶ Oblique phrases in Okanagan exhibit many of the cross-linguistic hallmarks of semantically incorporated nouns (Carlson, 2006), but most importantly for this paper, *t* is not a domain restrictor, since it is not a D⁰ determiner (Gillon, 2009).

There are pragmatic, and aspectual, conditions on the use of *iʔ* versus *t* and, by extension, uses of transitive versus intransitive predicates. In this paper, I endeavour to understand how these conditions help to shed light on the semantics of *iʔ* and *t*. That said, there is considerable overlap between the pragmatic contexts in which *iʔ* and *t* may be used, which I take as support for an analysis whereby the semantic force of *iʔ* is achieved primarily via Gricean implicature (i.e. *iʔ* is in scalar opposition with *t*). In other words, while the semantics of *iʔ* permit both vacuous and non-vacuous applications of domain restriction, *t* cannot restrict the domain. Thus, when a speaker uses *iʔ*, he/she implies a non-vacuous application of domain restriction, which can nevertheless be pragmatically overruled.

Section 2 consists of a brief discussion of the syntax of DPs in Okanagan. Section 3 investigates the semantics of *iʔ* and *t*. First I show that *iʔ* and *t* are not deictic, not definite, and are neither English-style nor St'át'imcets-style indefinites. Next, I discuss the distribution of *iʔ* in existential and generic sentences, and then compare the distribution of *iʔ* and *t* across a range of contexts, showing that *t* is felicitous in some environments where *iʔ* is not, and vice-versa, and conclude that *iʔ* implies uniqueness and maximality of a referent, while *t* does not. I then cite additional data which show that *iʔ* interacts exclusively with strong quantifiers, and that distributive readings appear to be absent from *iʔ* DPs, and conclude that *iʔ* restricts the domain of individuals, rather than creating a generalized quantifier (Barwise and Cooper, 1981). Section 4 consists of a formal implementation of my analysis. Section 5 concludes. Section 6 discusses further questions, namely predicative readings of *iʔ* DPs in copular environments, and restrictions on bound variable readings of *iʔ* DPs.

2 Syntax of Okanagan DPs: a summary

This section consists of an overview of the distribution of the determiner *iʔ* and the oblique marker *t* in Okanagan, and an analysis of basic DP

⁶All uses of *t* may perhaps be reduced to the following generalization: It indicates that an operation combining two elements of type <e,t> from different syntactic categories is occurring.

phrase structure.⁷ I abstract away from relative clauses, DP-internal possessive structures, nominalized clauses as arguments of determiners, and DP-adjoined demonstratives and quantifiers,⁸ instead focusing on only the most basic DP structures. An understanding of this section is important for an understanding of the compositional analysis in section 4.

To begin with, syntactic arguments and adjuncts in Okanagan are obligatorily marked by either the determiner *iʔ*, the oblique marker *t*, or one of several locative particles which are in complementary distribution with *t*. As mentioned in the introductory section, the distribution of *iʔ* and *t* is syntactically predictable. The determiner *iʔ* introduces subject arguments, and objects of formally transitive predicates, as in (4a). Objects of morphologically intransitive predicates (4b) will always be introduced by the oblique marker. The examples in (4) are ungrammatical if *t* is substituted for *iʔ*, or vice versa.

- (4) a. kʷúl-nt-n iʔ latáp.
 make-DIR-1SG.ERG DET table
 I made the table.
- b. kn sc-kʷúl-əm t latáp.
 1SG.ABS IMPF-make-MID OBL table
 I'm making a table.

Themes of transitive applicative sentences are also introduced by the oblique marker (5).⁹ The determiner is not grammatical in this position.¹⁰

- (5) a. kʷul-xt-n iʔ ylmíxʷəm *iʔ/t yámǰʷaʔ
 make-APPL-1SG.ERG DET chief *DET/OBL basket
 I made the chief a basket.
- b. c-ʔúkʷ-xt-m-n *iʔ/t ʔaʔúsaʔ.
 CISL-bring-APPL-2SG.ABS-1SG.ERG *DET/OBL egg
 I brought you an egg.

The oblique marker *t* is not a determiner, since it co-occurs with the determiner *iʔ* in specific grammatical environments: i.e. when marking the agent of a passive (6a), an instrument (6b), and when introducing the clausal remnant of some types of relative clauses (6c) (Lyon, 2010).¹¹

⁷I am currently working on a more detailed study of DP syntax, where I qualify some of my assumptions in this paper (Lyon, 2011).

⁸Although I return to a discussion of quantifiers in later sections.

⁹Mattina (2001) refers to transitive applicatives as *benefactive applicatives*. I use terminology from Barthaier (2002) in this paper.

¹⁰Although cf N. Mattina (1993b) for data showing that *iʔ* may sometimes co-occur with *t* in such contexts. This would make them similar to locative adjuncts, which often but not always have co-occurring overt determiners. My Upper Nicola speakers do not allow *iʔ* in this syntactic context, so this may represent one of many dialect differences.

¹¹As exemplified by (6c), the directive transitivizer *-nt-* regularly elides before 1st person singular

- (6) a. kíl-nt-ə̀m iʔ t skə̀mxíst.
 chase-DIR-PASS DET OBL bear
 He was chased by the bear.
- b. tʰap-nt-ís iʔ t swlwlímínk.
 shoot-DIR-3SG.ERG DET OBL gun
 He shot it with a gun.
- c. kn sc-kʷul-x t yámǰ́wáʔ iʔ t
 1SG.ABS IMPF-make-INTR OBL cedar bark basket DET OBL
 ks-yaʔyáʔǰ́ǰ́aʔ-sə̀lx.
 FUT-watch-(DIR)-3PL.ERG
 I'm making a basket that they will look at.

The main factors determining whether an object nominal is introduced by the determiner *iʔ*, the oblique marker *t*, or both, are the selectional properties of the main predicate.^{12,13} This syntactic predictability contrasts sharply with the facts in related languages like St'át'imcets, where determiner choice does not automatically co-vary with the transitivity of the main predicate. (7) shows that in St'át'imcets, unlike Okanagan (8), different determiners may be used in the same syntactic context.¹⁴

(7) (St'át'imcets)

- a. xat'-min-ás ti cwík'ten-a
 want-APPL-3SG.ERG DET knife-EXIS
 He wants the knife.
- b. xat'-min-ás ku cwík'ten
 want-APPL-3SG.ERG DET knife
 He wants a knife.

and 3rd person singular/plural ergative subject suffixes, when the root is strong (i.e. bears lexical stress). The fact that it is overt in (2a) and (4a) is unusual, since one usually finds the simpler form *kʷúl-n*.

¹²N. Mattina (2002) makes the same point for Moses-Columbian, stating that "determiner choice is dictated by the clause head".

¹³This makes plausible an analysis whereby *iʔ* and *t* function purely as case or agreement markers. While it is true that *iʔ* and *t* will normally always reflect the selectional properties of the main predicate, it does not necessarily follow that the locus of referentiality might reside within the predicate complex, or that *iʔ* is semantically vacuous. The strongest evidence against such an approach comes from the fact that *iʔ* converts a predicate NP into an argument DP, and that strong quantifiers can only combine with *iʔ* DPs, and not oblique marked nominals. I will return to this point in section 3. Ultimately, however, any semantic account of the oblique marker and determiner in Okanagan must also explain why transitivity varies, and it seems reasonable to propose that formally transitive predicates select for domain-restricted objects.

¹⁴Both assertion-of-existence *tí...a* and non-assertion-of-existence *ku* may be used in the same syntactic context, but only if the context is intensional. *Skwxú7mesh* also patterns with St'át'imcets, in allowing both deictic and non-deictic determiners in the same syntactic context.

(8) (Okanagan)¹⁵

- a. *ixíʔ ʃmínk-əm iʔ níkmən.
DEM want-MID DET knife
He wants the knife.
- b. ixíʔ ʃmínk-əm t níkmən.
DEM want-MID OBL knife
He wants a knife.
- c. ixíʔ ʃmínk-s iʔ níkmən.
DEM want-(DIR)-3SG.ERG DET knife
He likes the knife.
- d. ixíʔ ʃmínk-s t níkmən.
DEM want-(DIR)-3SG.ERG OBL knife
He likes *that* knife.

The oblique marker in Okanagan has a separate function: that of an attributive marker.¹⁶ In this capacity, it links an adjectival modifier to a head nominal in complex nominal predicate structures (9) and attributively-modified, complex DPs (10) (Lyon, 2010). The oblique marker is obligatory in both of these cases.

- (9) [sílɣ^waʔ *(t) sqəltmíx^w_{Pred}] iʔ ylmíx^wəm.
big *(OBL) man DET chief
The chief is a big man.

- (10) wik-n [iʔ silɣ^waʔ *(t) ylmíx^wəm._{DP}]
see-(DIR)-1SG.ERG DET big *(OBL) chief
I saw the big chief.

Okanagan *t* thus has two functions: (i) It case-marks a nominal as oblique; (ii) It links a nominal head to an attributive modifier. As a unifying characteris-

¹⁵The apparent availability of both *iʔ* and *t* for Okanagan (8c,d) is not an exception to this rule, since these two examples involve different syntactic structures. For (8c), the demonstrative denotes the 3rd person subject and the *iʔ* DP is the object argument of the transitive predicate. For (8d), the demonstrative denotes the knife, and forms a discontinuous DP constituent with the final oblique KP *t níkmən*. Evidence for this analysis comes from the fact that without the initial demonstrative in (8d), the sentence is ungrammatical, while the demonstrative in (8c) is optional. Both (8c) and (8d) therefore have full DPs as object arguments.

As a separate but related issue, demonstratives are not determiners in Okanagan, yet because the discontinuous demonstrative + oblique KP constituent in (8d) functions syntactically as a DP, this implies the existence of a null determiner, and suggests that oblique KPs may in fact be DPs headed by a null *k*-type determiner. I abstract away from this possibility for the purposes of this paper.

¹⁶Just as in Nt̓eʔkepmxc̓ín and Secwepemct̓sín. Evidence that attributive *t* is distinct from case marker *t* comes from data involving stacked modifiers, but I do not discuss these data here, but instead refer the reader to my syntax paper, in prep.

tic, *t* always signals that the following nominal is not itself a main predicate, and cannot itself select for an argument.¹⁷

I assume that *iʔ* belongs to the functional category D. This is a reasonable assumption: First, *iʔ* is historically cognate with the direct determiner *ye* in Shuswap (Gardiner, 1996), which has been analyzed as a D determiner. Second, the semantic behavior of *iʔ* resembles much more closely the ‘strong’ determiners of better-studied languages (Zamparelli, 1995) than any other element in Okanagan, which leads me to the conclusion that if Okanagan has a D determiner at all, it must be *iʔ*. Thirdly, *iʔ* is necessary for converting a predicate into an argument (11). This is claimed to be a core property of the D position (Longobardi, 1994).

- (11) a. *pəptwínax^w səx^wmaʔmáyaʔm.
 old.woman teacher
 The teacher is an old woman.
- b. [pəptwínax^w_{Pred}] [iʔ səx^wmaʔmáyaʔm._{DP}]
 old.woman DET teacher
 The teacher is an old woman.

Under a simple analysis, *iʔ* selects for an NP complement. As we have seen, however, the oblique marker *t* may co-occur with the determiner *iʔ* in certain contexts. This suggests that there must be an additional functional projection internal to DP. This position is independently motivated by a class of locative particles which resemble the prepositions found in some other Salish languages, but which occur after the determiner in Okanagan. (12) includes examples with locative marker *l* “at” and *tl* “from”.¹⁸

- (12) a. ʃ^wáyqŋ iʔ smik^wt [iʔ l nkmaqŋt^w._{DP}]
 piled DET snow DET LOC roof
 The snow piled on the roof.

¹⁷That is, the oblique-marked nominal phrase is either a core oblique, or it is being attributively modified. Importantly, *t* does not inherently confer a non-predicate status on an NP, since an attributively modified NP can still function as a predicate, and select for an argument.

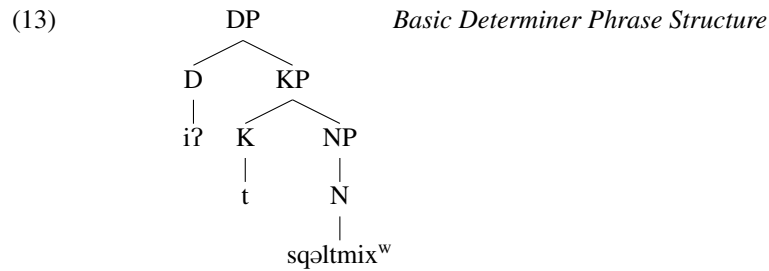
¹⁸cf Mattina (1973) for further discussion of these particles in Okanagan.

Kroeger (1999, 44) refers to these types of locative expressions in Salish as noncore-obliques, stating that they are “characteristically coded as prepositional phrases.” I analyze them as DPs, rather than PPs, however. Semantically, this analysis of course raises some challenging questions, since PPs are not normally thought of as referential, but I think it may be possible to analyze locative Ks as speaker-oriented, deictic NP modifiers. They essentially restrict the set denoted by the nominal property to just those individuals that stand in a particular deictic relation to the speaker, and the determiner (if present) fulfills its normal semantic function of selecting a contextually salient singular or plural individual. The fact that these locative KPs cannot function as subjects or objects is due the fact that the locative K simultaneously marks the DP as a syntactic oblique.

My analysis predicts that a locative KPs cannot by itself denote a contextually salient individual, since only a determiner can fulfill this function. Locative KPs may nevertheless happen to denote unique individuals if the nominal is lexically singular or just so happens already to be contextually salient, similar to the case of *t* objects.

- b. míyəs tíq^wəlq^w [iʔ t̩ scəcʔúps._{DP}]
 more tall DET LOC little.sister-3SG.POSS
 She is taller than her little sister.

These locative particles are in complementary distribution with the oblique marker *t*, suggesting that they occur in the same syntactic position. I will refer to this syntactic position as K, for case.¹⁹ Both oblique and locative markers designate their nominals as bearing an oblique syntactic relation to the main predicate (Mattina, 1993b, 281), and so the primary syntactic function of the K position is one of case-assignment.²⁰ I assume the structure in (13).



For Okanagan, I will show that the D position is associated with domain restriction, and that the K position is not. In terms of semantic types, the D position creates an entity-denoting expression from a property, whereas the K position preserves the property type of the NP.

The distribution of the determiner *iʔ* and the oblique marker *t* across the major grammatical and thematic relations is shown below in Figure 1.

	grammatical/thematic relation	D	K	N
1	Transitive objects	iʔ	∅	tk̩m̩f̩lx ^w
2	Oblique objects	∅	t̩	tk̩m̩f̩lx ^w
3	Subjects	iʔ	∅	tk̩m̩f̩lx ^w
4	Transitive Applicative Theme	∅	t̩	tk̩m̩f̩lx ^w
5	Di-transitive Applicative Theme	iʔ	∅	tk̩m̩f̩lx ^w
6	Passive agents	(iʔ)	t̩	tk̩m̩f̩lx ^w
7	Instrumental adjuncts	(iʔ)	t̩	tk̩m̩f̩lx ^w
8	Locative adjuncts	(iʔ)	{k̩l, l, t̩l}	tk̩m̩f̩lx ^w

Figure 1. Distribution of *iʔ* and *t̩* across grammatical categories²¹

¹⁹Bittner and Hale (1996) posit KP as the nominal equivalent of CP in the verbal domain. They assume that K selects a DP for an argument, rather than the opposite, which I assume for Okanagan. I see no immediate reason why it should universally be the case that K is exterior to DP, and so no reason why their analysis of KP could not in principle be extended to Okanagan, but I remain agnostic on this point at the moment.

²⁰Data involving NP deletion in relative clauses, as well as data involving conjunction, offer independent support for a K projection. See Lyon (in prep).

²¹The optionality of the determiners in categories 6-8 is in most cases a surface phenomena. They

My semantic study of *iʔ* and *t* focuses chiefly on environments where these particles mark objects (i.e. categories 1 and 2), since it is in these contexts that the clearest distinctions between *iʔ* and *t* may be found.

3 The semantics of the determiner *iʔ* and oblique marker *t*

This section introduces data relevant to determining the semantics of *iʔ* and *t*. I test for deixis, definiteness and specificity, and two specific types of indefiniteness. Many of these tests were utilized by Matthewson (1998) and Gillon (2006) in their studies of St'át'imcets and Skwxú7mesh determiners. Figure 2 below lists semantic properties for which I have test results.

Section	Property	<i>iʔ</i>	<i>t</i>
3.1	Deictic	x	x
3.2	Definite	x	x
3.2.1	presuppose uniqueness	x	x
3.2.2	assert uniqueness/maximality	x	x
3.2.3	specificity	x	x
3.3	English-style indefinite	x	x
3.4	St'át'imcets-style (widest-scope) indefinite	x	x
	scopes over modals and negation	✓	x
	scopes under modals and negation	✓	✓
3.5	Domain Restrictor	✓	x
3.5.2	existential sentences	✓	x
3.5.3	generic readings	✓	x
3.5.4	implies uniqueness/maximality	✓	x
3.5.5	occurs with strong quantifiers	✓	x
3.5.6	allows distributive readings	x	(✓)

Figure 2. *Semantic Properties of iʔ and t*²²

In this section, I first discuss and then reject the semantic properties of deixis, definiteness (uniqueness/maximality), and specificity as either presuppositional or assertive components of the denotation of *iʔ* and *t*. I then present data showing that *iʔ* and *t* are not English-style indefinites, nor are they widest-scope indefinites like those found in St'át'imcets. Next, I discuss the availability of existential and generic readings with *iʔ*, and suggest ways in which these readings may derive from a domain restriction analysis, before moving on to data showing that *iʔ* implies uniqueness and maximality. Then, I briefly describe Okanagan DP-adjoined quantifiers, and show that the universal quantifier may co-occur with *iʔ*, but not *t*. Finally, I discuss data showing that clear distributive readings of Okanagan DPs seem to be absent.

may be considered underlyingly present, except perhaps for the case of locative KPs in predicate positions. See Lyon (in prep).

²²*t* KPs do not display true distributive readings, hence the parentheses. Because the object is semantically incorporated, the distributivity is over events containing objects, not the objects themselves.

3.1 *i?* and *t* are not deictic

The Okanagan determiner *i?* does not seem to bear any deictic features, in contrast to deictic determiners in Skwxú7mesh (Gillon, 2006) and assertion-of-existence determiners in St'át'imcets (Matthewson, 1998), a fact that is perhaps unsurprising, given that *i?* has no contrastive element. Firstly, the determiner *i?* does not encode spatial deixis, or a visible/invisible distinction: It may introduce a nominal that is either proximal (14) or distal (15) from the speaker.

- (14) a. aklá? c-x^wist i? sqəltmíx^w.
 DEM CUST-walk DET man
 A man is walking over here.
- b. x^w?it i? xʰút i? l latáp.
 many DET rock DET LOC table
 There are lots of rocks on the table.
- (15) a. i? sqəltmíx^w c-x^wist i? l ʰyáʰnəʰ.
 DET man CUST-walk DET LOC moon
 A man is walking on the moon.
- b. x^w?it i? xʰút i? l ʰyáʰnəʰ.
 many DET rock DET LOC moon
 There are lots of rocks on the moon.

Spatial deixis in Okanagan is primarily fixed by deictic demonstratives, as illustrated by (16):²³

- (16) a. ixí? (i?) i-s-n-səx^wk^wúləm
 DEM (DET) 1SG.POSS-s-n-worker
 That is my co-worker.
- b. axá? (i?) i-s-n-səx^wk^wúləm
 DEM (DET) 1SG.POSS-s-n-worker
 This is my co-worker.

The determiner *i?* also commonly occurs in questions where the location of a contextually definite object (17a), or the identity of a non-existent object (17b) are under discussion. The house in (17a) is non-locatable, at least to the speaker, and the objects in (17b,c) are not locatable to either speaker or hearer, since they have not yet been made.

²³The determiner *i?* is underlyingly present in these examples, but reduces before 1st and 2nd person possessive prefixes. The demonstratives in (16) might be syntactic predicates, or alternatively, they might constitute an argument of a null copula, with the DP functioning as the second argument. Their analysis is not clear at this point.

- (17) a. kaʔkín iʔ citx^w iʔ k^wu k^wúl-xt-x^w?
 where DET house DET 1SG.GEN make-APPL-2SG.ERG
 Where is the house you said you'd build for me?
- b. stim íxíʔ iʔ k-sc-k^wúl-s?
 what DEM DET FUT-PERF-make-3SG.POSS
 What is he going to make?
- c. way i-ks-k^wúl-əm iʔ pwmin iʔ t
 yes 1SG.POSS-FUT-make-MID DET drum DET OBL
 ks-yaʔyáʔxaʔ-səlɬ.
 FUT-show-(DIR)-3PL.ERG
 I will make a drum that they will show.

Speaker knowledge of the location of a referent is irrelevant in determining whether or not an *iʔ* DP may be used. In (18a), for example, the speaker is asserting that John is looking for a book, but may then overtly cancel any implicature that he or she knows which book John is looking for.²⁴

- (18) a. ac-ʔaʔʔaʔ-st-ís iʔ ʔəýmín, uʔ lut
 CUST-look for-CAUS-3SG.ERG DET book CONJ NEG
 ac-my-st-ín stim t ʔəýmín
 CUST-know-CAUS-1SG.ERG what OBL book
 ac-ʔaʔʔaʔ-st-ís.
 CUST-look for-CAUS-3SG.ERG
 John is looking for a book, but I don't know which book he is looking for.
- b. Sarah wik-s iʔ kəkwap, náxəmʔ lut
 Sarah see-(DIR)-3SG.ERG DET dog CONJ NEG
 ac-my-st-ín haʔkín t kəkwap.
 CUST-know-CAUS-1SG.ERG which OBL dog
 Sarah saw a dog, but I have no idea which dog.

Okanagan *iʔ* also does not encode temporal deixis. The examples in (19) show that *iʔ* may be used to make reference to an entity from the far past (19a), an entity in the present (19b), or an entity in the future (19c).²⁵

²⁴Matthewson (1999) cites similar data for her argument that St'át'imcets assertion-of-existence determiners are wide-scope indefinites. I abstract away from their questionable status as sluicing data.

²⁵(19c) incidentally also confirms that hearer knowledge of the location of a referent is likewise irrelevant to a speaker's use of an *iʔ* DP.

- (19) a. ixíʔ n-kʷúl-mən-s iʔ sqílxʷ q̄sápi.
 DEM n-make-INSTR-3SG.POSS DET people long ago
 That's the way the old people lived long ago.
- b. ixíʔ ʔápnáʔ iʔ sámaʔ kʷaʔ c-qʷán̄k-st-səlx
 DEM now DET white people COMP CUST-plant-CAUS-3PL.ERG
 iʔ qáq̄xʷəlx.
 DET fish
 And today, the white man plants the fish (in hatcheries).
- c. axáʔ kʷu cú-s ks-kʷúl-əl-aʔx iʔ
 DEM 1SG.GEN say-(DIR)-3SG.ERG FUT-make-FRED-INCEPT DET
 skʷkʷíyməlt.
 child
 This says that a child will be born.
 Context: A fortune-teller consulting an oracle.

It is important to consider whether *iʔ* might be specified as having a “neutral” deictic feature, similar to Skwxú7mesh *ta*, rather than being underspecified for deixis. The Skwxú7mesh neutral determiner can be used “for referents which can be located or were locatable at some point by the speaker” (Gillon, 2006, 46). A felicitous use of *iʔ*, however, seems unrelated to whether or not a referent is even *in principle* locatable (20):

- (20) a. lut t̄ə c-ʔam(n)-st-ín iʔ kəkʷáp.
 NEG EMPH CUST-feed-CAUS-1SG.ERG DET dogs
 I don't feed dogs./I never feed dogs.
- b. lut t̄ə c-wík-st-n iʔ sqəltmíxʷ
 NEG EMPH CUST-see-CAUS-1SG.ERG DET man
 k-c-ncíw-əm-s.
 k-CUST-wash.dishes-MID-3SG.POSS
 I've never seen a man washing dishes.

A “neutral” deictic feature implies that there are no deictic restrictions on the use of an item, but also implies that there are other possible deictic values which might associate with other determiners. As there are no other determiners in Okanagan, and deixis is determined by demonstratives, I take this as evidence that *iʔ* has no deictic specification. In this respect then, Okanagan *iʔ* is similar to the Moses-Columbian “non-demonstrative, general” determiner *ʔani* (Mattina, 2002).

As further evidence that Okanagan *iʔ* is non-deictic, consider Matthewson (2008), who notes that St'át'imcets assertion-of-existence DPs do not allow bound variable or e-type readings. Instead, null pronominals must be used to achieve these readings. She claims that “deictic features of the overt DPs force

reference to the discourse situation, and this prevents binding or variation across situations.” (p. 543). Although bound variable readings for Okanagan DPs are restricted,²⁶ e-type readings are easily obtainable.

To illustrate, speakers often volunteer nominalized clause DPs in environments requiring e-type readings, as in (21). Thus, the final DP *iʔ stʔaps* in (21a) denotes “the thing he shot”, and the final DP *iʔ skʷústks* in (21b) denotes “the thing he caught.”

- (21) a. Norman ks-píx-aʔx ʔ tʔap-ám t sʔaʔcínəm,
 Norman FUT-hunt-INCEPT COMP shoot-MID OBL deer
 x̣mink-s swit ks-číqʷiʔ-s iʔ
 want-(DIR)-3SG.ERG who FUT-to.skin-(DIR)-3SG.ERG DET
 s-tʔap-s.
 NOM-shoot-3SG.POSS

Norman said he’s going to kill a deer and he wants someone to skin what he shot.

- b. John nstils ks-ʔəʔpín-aʔx t qáqʷəlx,
 John think(INTR) FUT-fish.with.a.line-INCEPT OBL fish
 uʔ x̣mínk-s i-ks-p̣yaq-ʔt-ím
 CONJ want-(DIR)-3SG.ERG 1SG.POSS-FUT-cook-DITR-MID
 iʔ s-kʷús-tk-s.
 DET NOM-something.caught-3SG.POSS

John thinks he’s going to catch a fish, and he wants me to cook the what he caught.

It is nevertheless acceptable to use a basic, nominal DP in an e-type context, as in (22), where the DP *iʔ sʔaʔcínəm* denotes some non-specific individual which Norman will shoot.

- (22) Norman ks-píx-aʔx ʔ tʔap-ám t sʔaʔcínəm,
 Norman FUT-hunt-INCEPT COMP shoot-MID OBL deer
 x̣mink-s swit ks-číqʷiʔ-s iʔ
 want-(DIR)-3SG.ERG who FUT-skin-(DIR)-3SG.ERG DET
 sʔaʔcínəm.
 deer

Norman said he’s going to kill a deer and he wants someone to skin the deer.

Okanagan *iʔ* DPs also allow co-varying interpretations in bridging cases. The DP *iʔ ylmíxʷəm* “the chief” in (23) denotes a different individual for every reserve that the speaker visits.

²⁶Bound variable readings of *iʔ* DPs in distributive contexts are not possible without overt possessor morphology on the nominal, implying that while *iʔ* DPs may be bound across worlds and times, they may not be distributed over. See section 3.5.6.

- (23) kn ʔaʔ c-x^wúy kl sqlx^wúlaʔx^w, pintk iʔ
 1SG.ABS COMP CUST-go LOC reserve always DET
 ylmíx^wəm iʔ cxʔit ac-q^wəlq^wíl-st-n.
 chief DET first CUST-talk-CAUS-1SG.ERG
 Every time I visit a reserve, I talk to the chief.

The availability of e-type readings for Okanagan *iʔ* DPs sets them apart from DPs in St’át’imcets. This receives a straightforward explanation under the assumption that Okanagan *iʔ* has no deictic features to force reference to the discourse situation, or prevent binding across situations.

Finally, the oblique marker *t* is also not associated with any deictic features.²⁷ It often surfaces in negative polarity (24a) and intensional contexts (24b), and consistently exhibits non-specific readings.

- (24) a. uc k^w wík-əm t s-qəl-qəltmíx^w?
 YNQ 2SG.ABS see-MID OBL IRED-man
 Did you see any men?
- b. kn ʔmínk-əm t n-ʔəs-ít^w t siwłk^w mi
 1SG.ABS want-MID OBL n-good-water OBL water FUT
 ks-siwst-x i-słax̄t.
 FUT-drink-INTR 1SG.POSS-friend
 I want some good water for my friend to drink.

I conclude that neither *iʔ* nor *t* are associated with deictic features. Furthermore, a “neutral” deictic specification for *iʔ* may be ruled out on the principled grounds that there are no other values with which “neutral” may contrast. Like Moses-Columbian *?ani* then, Okanagan *iʔ* is non-deictic.²⁸

3.2 *iʔ* and *t* are not definite

Okanagan *iʔ* cannot be analyzed as a definite determiner, either under a Russellian account where uniqueness is asserted (Russell, 1905), or under the Fregean account where uniqueness is presupposed (Frege, 1892). I first present data showing that *iʔ* does not presuppose uniqueness, and then show that *iʔ* does not assert uniqueness or specificity. Given that these are hallmarks of definite-

²⁷Locative markers, which I argue occur in the same syntactic position as the oblique case marker, are of course associated with deictic features. Interestingly, there are asymmetries between locative and oblique markers that might be traceable to the presence or absence of deictic features. Locative markers, for example, can syntactically license a determiner, but the oblique marker cannot. See Lyon (in prep).

²⁸It may be possible to analyze *iʔ* as a type of discourse deictic. Since *iʔ* is contextually sensitive, an *iʔ* DP can be co-referential with a previously introduced discourse referent, and so might be understood as “pointing” to that referent. But because *iʔ* patterns in other ways like a non-deictic determiner, I analyze it as such.

ness, it follows that Okanagan *iʔ* cannot be definite.²⁹

3.2.1 *iʔ* and *t* do not presuppose uniqueness

There is no familiarity requirement associated with *iʔ*. That is, *iʔ* does not presuppose the existence of a unique or non-unique referent which satisfies the NP restrictor, and therefore places no constraints on the common ground of discourse. Evidence for this claim comes from several places. First, a new discourse referent may be introduced by *iʔ*:³⁰

- (25) ǰsápi k^wuk^w iʔ tət^wít. ǰ^wíl-st-səlx.
 long ago EVID DET boy abandon-CAUS-3PL.ERG
 A long time ago, there was a/*the boy. They abandoned him.

The above use of *iʔ* patterns with the English indefinite determiner *a*. Unlike an English-style indefinite, however, once a discourse referent is established, an *iʔ* DP allows a co-referential reading. In other words, *iʔ* is felicitous in both definite and indefinite contexts. To illustrate, (26a,b) shows two new referents *iʔ* *səsíʔsəlx* “their uncle” and *iʔ* *xǰut* “a rock” being introduced at the beginnings of two separate stories. At later points in their respective stories, the referents are once again invoked, using *iʔ* DPs (27a,b).^{31,32}

- (26) a. c-wix iʔ sqilx^w uʔ iʔ stəmtímaʔ uʔ iʔ
 dwelling DET people CONJ DET grandmother CONJ DET
 səsíʔsəlx uʔ tkasʔasíl iʔ xəxíw^ʔxuʔtəm
 uncle-3PL.POSS CONJ two(HUMAN) DET girls
 There lived some people, a grandmother, their uncle, and two little girls.
 (Mattina and DeSautel, 2002, 111)
- b. l ǰ^wumqⁿ-atk^w k-síl^waʔ iʔ xǰut ilíʔ swit xíʔwíl^x uʔ
 LOC head-water HAVE-big DET rock DEM who pass by CONJ
 c-kǰáw-əm.
 CUST-pray-MID
 At Chaperon Lake there is a big rock where people who pass by pray at.

²⁹The fact that *iʔ* may occur in existential sentences furnishes additional evidence against a definite or directly referential account of *iʔ*.

³⁰cf N. Mattina (2006, 127) for similar data in Moses-Columbian, Matthewson (1999) for St’át’imcets, and Gillon (2006) for Skwxú7mesh.

³¹Recall that the co-occurrence of *iʔ* and *t* in the context of (27a) signals a passive agent.

³²Note also the cataphoric pronoun in (26a): “their” is introduced before the discourse referent.

- (27) a. *ixíʔ uʔ wík-nt-m-əlx iʔ t səsíʔ-səlx*
 DEM CONJ see-DIR-PASS-3PL DET OBL uncle-3PL.POSS
 Then their uncle saw them. (Mattina and DeSautel, 2002, 113)
- b. *uʔ ks-knxít-m-s ixíʔ iʔ xʔút.*
 CONJ FUT-help-2SG.ACC-3SG.ERG DEM DET rock
 It will help you, this rock.

The oblique marker *t* also does not presuppose the uniqueness of a referent. Oblique-marked objects may be found at the beginning of a narrative (28a), or in the middle of a narrative (28b).³³

- (28) a. *ʔaʔ c-kʷúl-əm iʔ sqílɣ^w t yámǰ^waʔ.*
 COMP CUST-make-MID DET people OBL cedar bark basket
 How the people made cedar bark baskets.
- b. *s-tix^w-səlx iʔ sʔaǰ^wíp t kʷúl-əm t*
 s-obtain-(DIR)-3PL.ERG DET root OBL make-MID OBL
yámǰ^waʔ.
 cedar bark basket
 They gathered the roots to make baskets.

Data from non-narrative contexts also show that both *iʔ* and *t* may be used in non-familiar, indefinite, out-of-the-blue contexts. (29) exemplifies the pragmatic overlap of oblique marked KPs and *iʔ* DPs.

- (29) a. *t-kíc-n iʔ sqəltmíɣ^w ʔapnáʔ sǰəlǰʔált.*
 meet-(DIR)-1SG.ERG DET man now today
 I met a man today.
- b. *kn t-kíc-əm t sqəltmíɣ^w ʔapnáʔ sǰəlǰʔált.*
 1SG.ABS meet-MID OBL man now today
 I met a man today.

Context: I enter a room and tell you what happened to me today.

It is not feasible for the speaker to expect the hearer to be familiar with the particular man to which the speaker refers in this context.³⁴ If *iʔ* and *t* were Fregean definites, we might expect presupposition failure in contexts where the hearer does not have in mind the same unique referent as the speaker, yet there is no

³³There is no co-referential relation between the second KP and the first, since as I will argue, *t* is not sensitive to the context. Both occurrences of *t yámǰ^waʔ* in (28) denote non-specific instances of “baskets”, which follows from a semantic incorporation analysis of *t* KP objects. Accidental co-reference is, however, theoretically possible.

³⁴Any implicature of uniqueness associated with (29b) comes from the noun *sqəltmíɣ^w* being lexically singular, not from any direct effect of *t*. See section 3.5.1 and 3.5.4 for discussion.

presupposition failure for (29). Hearer knowledge is not a relevant factor in determining a felicitous use of *iʔ*. Once again, the implication is that neither *iʔ* nor *t* encode a presupposition of uniqueness.

In question-and-answer contexts, *iʔ* may be used to establish a new discourse referent, or answer a question related to a previously established discourse referent (31a). An oblique marked object cannot answer a question related to a previously established discourse referent (31b).

- (30) a. *stím iʔ cʰmín-(n)t-xʷ?*
 what DET throw-DIR-2SG.ERG
 What did you throw?

Context: Questioner has no idea what the addressee might have thrown.

- b. *xʔkínəm iʔ púkʷlaʔ?*
 where DET ball
 Where is the ball?

Context: Questioner is specifically asking what happened to a ball which is discourse old.

- (31) a. *cʰmi(n)-n iʔ púkʷlaʔ.*
 throw-(DIR)-1SG.ERG DET ball
 I threw a/the ball. (Answers (30a) or (30b))
- b. *kn cʰmín-əm t púkʷlaʔ.*
 1SG.ABS throw-MID OBL ball
 I threw the/*a ball. (Answers (30a), *not* (30b))

If *iʔ* or *t* presupposed uniqueness, we might expect (i) *iʔ* to be infelicitous in an indefinite context, which it is not (cf 31a); and (ii) *t* to be felicitous in a definite context, which it is not (cf 31b). Since either may freely be used in indefinite contexts, neither can be analyzed as a definite.

As a final piece of evidence that Okanagan *iʔ* is not presuppositional, consider that it must co-occur with a possessed noun in argument position:

- (32) *taʔlíʔ ʃast ixíʔ [iʔ kəwáp-*s_{possessum}*] [Mike-*s_{possessor}*]*
 very good DEM DET horse-3SG.POSS Mike
 Mike's horse is very fine.

Possessive DPs in English are normally associated with a presupposition of existence. For example, if an English-speaking hearer of (32) did not already know that Mike had a horse, he/she is forced to accommodate the speaker's presupposition (Lewis, 1979). The English definite determiner cannot co-occur with possessor morphology.³⁵ For Okanagan, possessive morphology is also plausibly tied to a presupposition of existence, yet a determiner is nevertheless re-

³⁵Excluding possessive structures which use *of*.

quired. It is at least consistent with my analysis to assume that the absence of co-occurrence restrictions between *i?* and possessor morphology in Okanagan may be due to a lack of semantic redundancy: *i?* is not definite.³⁶

I conclude that the determiner *i?* does not presuppose the existence of a unique referent, which would otherwise be predicted, as under the Fregean analysis of English *the* in (33), taken from Heim (2011):

$$(33) \quad \llbracket \text{the} \rrbracket = \lambda P : \exists x \forall y [P(y) \leftrightarrow x = y]. \iota x. P(x)$$

Since there is no presupposition of uniqueness associated with the use of Okanagan *i?*, the only possible resemblance between Okanagan *i?* and English *the* could reside in the assertion of uniqueness, $\iota x. P(x)$. As will be shown in the next section, even this cannot be maintained for *i?*.

3.2.2 *i?* and *t* do not assert uniqueness or maximality

Uniqueness assertions, and maximality assertions for plural DPs, are considered hallmark properties of the English definite determiner. At first glance, Okanagan *i?* might be taken to assert uniqueness as well: It may introduce singular referents, such as the Sun and Moon (34):³⁷

- (34) a. taʔt kiʔ kʷəlál iʔ ʃyáʔnəʃʷ ʔapnáʔ.
 sure FOC bright DET sun now
 The sun is very bright today.
- b. lútaʔ ʔʔiʔʷ iʔ skʷəmkʷimcxən skəkʷlaxʷ.
 NEG perceptible DET moon yesterday.evening
 The moon wasn't out last night.

It quickly becomes apparent that *i?* and *t* do not assert the uniqueness of a referent.³⁸ First of all, *i?* is felicitous in situations where it is an implicit fact that there is more than one contextually-salient element satisfying the nominal property.

³⁶Possessor morphology may also occur on an oblique nominal introduced by *t*, but importantly, so must the “unrealized possessor” prefix *kʰ-* (Mattina and Mattina, 1995). In these cases, possessor morphology adds only a presupposition that the non-possessed set P is non-empty, but there remains no presupposition of existence for a referent, since the identity of the individual to-be possessed is still unknown. *t* plus *kʰ-* possessed nominals are thus similar to specific uses of English indefinites, except that they only have non-specific readings. *t* plus *kʰ-*, in a sense, weakens the presuppositional force of the possessor-morphology. (Lyon, in prep.)

³⁷The form *skʷəmkʷimcxən* in (34b) is listed in Mattina (1987) as meaning “rainbow”, but Upper Nicola speakers use it to refer to the Moon.

³⁸Similar to deictic determiners in Skwxú7mesh (Gillon, 2006, 88), but different than St’át’imcets assertion-of-existence determiners (Matthewson, 2008, 15).

- (35) k^wu c-k^wi(n)-t i? lpot.
 1SG.GEN CISEL-take.something.for.someone-DITR DET cup
 Bring me a cup.

Context: Two cups on a table, equidistant from the speaker.
 Consultant's comment: Then I'd pass you one of the cups.

- (36) c-x^wuy-x, q^wəlq^wíl-st-x^w i? tkłmłx^w.
 CISEL-go-INTR talk.to-CAUS-2SG.ERG DET woman
 Come here, talk to a woman!

Context: There are two women in a room with my friend and I. I'm hoping that my friend will get over his shyness of women.

Given that neither one of the two cups in (35), or the women in (36), is specifically under discussion, the contexts must include both cups and both women. Any assertion or presupposition of uniqueness is therefore incompatible with these contexts. Likewise in (37) below, in a context where we know that Mike has many friends, and both Walter and Sam are Mike's friends, both can be referred to as *i?* *slaxts* "his friend". *i?* is not incompatible with Mike having more than one friend.³⁹

- (37) Walter i? slaxt-s uł Sam i? slaxt-s
 Walter DET friend-3SG.POSS CONJ Sam DET friend-3SG.POSS
 nix^w.
 also

Walter is his friend, and Sam is his friend too.

In irrealis and future contexts, an *i?* DP may denote a referent that is neither presupposed nor asserted to be unique. In (38), there may be more than one man which the addressee could marry, possibly any man in the entire universe, and the locative DP could denote any one of these individuals.

- (38) axá? k^wu cú-s k^w c-mrím-a?x
 DEM 1SG.GEN say-(DIR)-3SG.ERG 2SG.ABS CUST-marry-INTR
 i? kl sqəłtmíx^w.
 DET LOC man

This tells me that you will marry a man.

Context: Fortune teller consulting an oracle.

Discourse provides more explicit evidence that *i?* does not assert uniqueness. For (39) below, B's initial reply to A's question includes the DP *i?* *słaxłcínəm*, in an indefinite context. The DP cannot be taken to assert the uniqueness of the

³⁹(37) is an example of two conjoined copular sentences, where the DP in each conjunct is functioning semantically as a predicate. These sentences pose compositional challenges, and may be evidence for a null copula. See section 6 where I discuss further questions.

entity satisfying the property “deer”, however, since further development of the sentence makes it clear that there is more than one deer in the context set.⁴⁰

(39) A: uc k^w tʰapám?
 YNQ 2SG.ABS shoot-MID
 Did you shoot (anything)?

B: tʰáp-nt-ín iʔ sʰaʔcínəm t spiʔscíʔt. mús iʔ
 shoot-DIR-1SG.ERG DET deer OBL yesterday four DET
 sʰaʔcínəm i-sc-wík uʔ iʔ k^wʰt ilʔ
 deer 1SG.POSS-PERF-see CONJ DET the.rest.of DEM
 yalt.
 run.away

I shot a deer yesterday. I saw four deer, but the others got away.

The oblique marker *t* also does not assert the uniqueness of a referent, as shown by (40):

(40) kn wík-əm t k^wəck^wact t ylmíx^wum.
 1SG.ABS see-MID OBL strong OBL chief
 I saw a strong chief.

Context: You’re at a chief’s gathering. Some of the chiefs are strong, some are not.

The analysis of the English definite is generally assumed to invoke maximality (Sharvy, 1980). In this way, plural individuals can fall under the range of the iota operator, and the truth values found with singular definites are more-or-less preserved in the plural cases. The semantic denotation of *the*, as represented in (33) is thus revised to (41) in order to accommodate plural definites (Heim, 2011):

(41) $[[\text{the}]] = \lambda P : \exists x \forall y [\text{MAX}(P)(y) \leftrightarrow x = y]. \iota x. \text{MAX}(P)(x)$

For mass nouns (42) and nominals which allow for plural reference (43) in Okanagan, *iʔ* does not assert maximality.

(42) ʔiʔ-n iʔ stxít^w, náʰəmʔ ilʔ
 eat-(DIR)-1SG.ERG DET soup CONJ DEM
 ʔwin-xt-m-n mi nix^w anwíʔ
 leave-APPL-2SG.ACC-1SG.ERG FUT also 2SG.INDEP
 k^w ks-ʔiʔən-aʔx t stxít^w.
 2SG.ABS FUT-eat-INCEPT OBL soup

I ate some soup, but I saved you some so you can eat too. (VG)

⁴⁰The domain can therefore be “widened”. See example (132) for a different case of domain widening. These examples indicate that uniqueness effects are only implicatures.

- (43) ʔiɫ-n iʔ sp̥yqatq, náxəmt̩ iliʔ
 eat-(DIR)-1SG.ERG DET berry CONJ DEM
 k̥im-xt-m-n iʔ sp̥yqatq.
 except-APPL-2SG.ACC-1SG.ERG DET berry
 I ate some berries, but I saved you some. (VG)

Context: There was a bowl of berries/soup on the table, but now it is gone. I ask “What happened to the berries/soup?”

For both (42) and (43), the consultant volunteers English translations of the initial Okanagan DPs with the weak quantifier “some”, despite the fact that there is no quantifier in these sentences. If *iʔ* asserted maximality, we might otherwise expect these sentences to be infelicitous,⁴¹ as in the English sentence *#I ate the berries but I saved you some*.

I conclude that the determiner *iʔ* does not assert uniqueness or maximality of a referent, despite data showing that it is compatible with a unique or maximal referent.

3.2.3 *iʔ* and *t* do not encode specificity

Okanagan *iʔ* can be felicitously used for both specific and non-specific referents, and as such does not encode specificity, or reflect any specific/non-specific distinction. The oblique marker *t*, by contrast, is consistently non-specific.

Some have defined specificity as meaning that there is a non-empty and contextual salient set P (Diesing, 1992; Enç, 1991). The requirement that there be a contextually salient set P is equivalent to a presupposition of existence. Under this definition, specificity is essentially equivalent to definiteness, and we can immediately rule out specificity as an attribute of both *iʔ* and *t*.

Ludlow and Neale (1991) suggest an alternative definition, where specificity is independent of any presupposition of existence. In other words, a referent need not be discourse-old in order to use a specific determiner. The only necessary presupposition is that the set P is non-empty; it does not have to be contextually salient. The following two English sentences, taken from Matthewson (1998, 95-97), illustrate how the English indefinite determiner *a* permits a specific reading:

⁴¹Data showing that *iʔ* DPs may occur in existential sentences (see section 3.5.2) provides further evidence that there is no maximality assertion associated with *iʔ*:

- (i) x^w?it iʔ siwtk^w k̥l kaʔt̥ús.
 many DET water LOC over the hill
 There is a lot of water over that hill.

In (i), there is a weak, non-proportional reading of the quantifier *x^w?it* “many/a lot”, which inherently clashes with a maximality assertion. There is nevertheless also a strong, proportional reading to the quantifier, which results in the sentence being interpreted as “A lot of the water is over the hill.” Sentence (i) is thus only ambiguously an existential sentence. Both interpretations are derivable via a domain restriction analysis (see sections 3.5.2, 3.5.4 and 4).

(44) a. Sophie didn't buy a book I recommended.

b. Every boy in Mary's class fancies a girl who Mary doesn't know.

The indefinite DP in (44a) refers to a specific book. Likewise in (44b), on the reading where “a girl” takes scope over the distributive operator, “a girl” is also interpreted specifically. In both cases, the DP is discourse-new, and in both cases, there is a presupposition that the set P is non-empty. English *a* does not *encode* any presupposition that the set P is non-empty, since as the following sentence shows (also taken from Matthewson, 1998), *a* is also felicitous in contexts where there is no presupposition that P is non-empty (e.g. since there are no unicorns).

(45) Sophie didn't buy a unicorn.

Similarly in Okanagan, the felicitous use of *iʔ* and *t* does not depend on any presupposition that a set P is non-empty. (46a,b), for example, are fine in both worlds where sasquatches exist and do not exist.

(46) a. lut t̚ wík-n iʔ ćwanáytmx.
 NEG EMPH see-(DIR)-1SG.ERG DET sasquatch

I've never seen a/the sasquatch.

Consultant: That's talking about an individual sasquatch.

b. lut t̚ kn c-wík-əm t ćwanáytmx.
 NEG EMPH 1SG.ABS CUST-see-MID OBL sasquatch

I've never seen any sasquatch.

Consultant: I've never seen no sasquatch.

The DP *iʔ ćwanáytmx* “a sasquatch” in (46a) may have either a specific or a non-specific reading in worlds where sasquatches exist (depending on whether it scopes above or below negation), and a non-specific reading in worlds where sasquatches do not exist. The oblique KP in (46b) has only a non-specific reading, but this reading also arises independent of any presupposition associated with *t*.⁴²

Likewise in (47) below, the interpretation of the DP *iʔ sqəłtmix^w* “a man” permits both a specific interpretation (i.e. the same man sits at the same

⁴²Non-specific readings of nominals also arise in existential sentences via the use of the prefix *(ʔa)kʔ* “have”. Compare (i)a and (i)b, which are essentially equivalent:

(i) a. lut t̚ nunx^wínəmi(n)-n ʔaʔ kʔ-ćwanáytmx.
 NEG EMPH believe-(DIR)-1SG.ERG COMP HAVE-sasquatch
 I don't believe that there are sasquatches.

b. lut t̚ nunx^wínəmi(n)-n iʔ ćwanáytmx.
 NEG EMPH believe-(DIR)-1SG.ERG DET sasquatch
 I don't believe in the sasquatch.
 I don't believe there's a sasquatch.

These contrasts are discussed further in section 3.5.2 and section 3.5.4.

table every day, and John always argues with that man), and a non-specific interpretation (i.e. John argues with whichever man happens to be sitting at a particular table).

- (47) John pintk k-ac-q^wal-st-wix^w-s i? sqəltmix^w
 John always k-CUST-argue-CAUS-RECIPR-3SG.ERG DET man
 i? mut l latáp.
 DET sit LOC table
 John always argues with the man sitting at the table.

In some cases, Okanagan *i?* only has a non-specific interpretation, as with the DP *i? l npusmən* in (48).⁴³

- (48) kn pús-əm t patáq i? l npús-mən uł lut
 1SG.ABS boil-MID OBL potato DET LOC boil-INSTR CONJ NEG
 ac-my-st-ín la?kín t npús-mən ki?
 CUST-know-CAUS-1SG.ERG which OBL boil-INSTR FOC
 n-?útan-(n)t-in.
 LOC-be.there-DIR-1SG.ERG
 I put the potatoes into a pot, but I don't remember which pot I put the potatoes into.

In the absence of the second conjunct in (48), the default interpretation of the locative DP is a specific pot. This default interpretation arises via an implicature of uniqueness, rather than any inherent specificity feature associated with *i?*. I will discuss these implicatures further in section 3.5.4.⁴⁴

Temporal adverbials also appear to force non-specific, narrow scope readings of *i?* DPs.⁴⁵ In (49) below, the *i?* DPs cannot be interpreted specifically, since the same letter cannot arrive every day (49a), and the same fish cannot be eaten every day (49b).

- (49) a. yaŷyáŷt i? sənyak^wqín ac-kic-x i? qəýmín.
 all DET afternoon CUST-arrive-INTR DET letter
 Every afternoon a letter arrives.
 b. ?íł-n i? qáqx^wəlx yaŷyáŷt sʰəłʰŷáłt.
 eat-(DIR)-1SG.ERG DET fish all day
 I eat (a) fish every day.

⁴³The set of individuals (or plural individual under my analysis) denoted by *i? l npusmən* “the in pot” is nevertheless certainly restricted to the number of contextually salient pots in the kitchen.

⁴⁴Specific readings of *i?* DPs are derivable from domain restriction, however non-specific readings of *i?* DPs are usually, though not always, tied to an absence of domain restriction.

⁴⁵This may involve binding of implicit world and time arguments associated with the nominal. Cf also the e-type and bridging cases discussed in section 3.1.

The *iʔ* DPs in (49) denote a different non-specific individual for every afternoon/day. Okanagan DPs, unlike those in St’át’imcets, cannot be temporally bound to the discourse situation, since otherwise we predict only an infelicitous specific reading for the DPs in (49).

(50) shows that Okanagan *iʔ* DPs also permit individual concept readings, unlike in St’át’imcets (Demirdache, 1996):

- (50) cmay iʔ ylmíx^wəm laʔkín iʔ tkámílx^w.
 EPIS DET chief when DET woman
 Maybe someday there will be a woman chief./
 Maybe the chief will someday be a woman.

For (50), the referent of *iʔ ylmíx^wəm* “the chief” is any non-specific future individual which happens to be the chief at that future time. If this DP were referring to a particular individual, the sentence could only be interpretable as asserting that it is possible that the current chief will undergo a sex-change operation. It seems that Okanagan *iʔ* may denote either specific or non-specific referents, similar to English *a*.

Okanagan *t* may only be used non-specifically. For example, many realis relative clauses with oblique-marked nominal heads are ungrammatical, since the relative clause head must be interpreted specifically. Sentences with oblique-marked nominals, such as (51a, cf 52), are corrected to sentences containing *iʔ* DPs, such as (51b), where the DP *iʔ sqəłtmíx^w* has a specific interpretation like the English indefinite in (44a).

- (51) a. *lut kn t̄ə kaʔkíc-əm t sqəłtmíx^w iʔ
 NEG 1SG.ABS EMPH find-MID OBL man DET
 wík-n t spiʔscíft.
 see-(DIR)-1SG.ERG OBL yesterday
 I didn’t find a/any man that I saw yesterday.

- b. lut t̄ə kaʔkíc-n iʔ sqəłtmíx^w iʔ
 NEG EMPH find-(DIR)-1SG.ERG DET man DET
 wík-n t spiʔscíft.
 see-(DIR)-1SG.ERG OBL yesterday
 I didn’t find the man that I saw yesterday.

- (52) lut kn t̄ə kaʔkíc-əm t sqəłtmíx^w.
 NEG 1SG.ABS EMPH find-MID OBL man
 I didn’t find a/any man.

In sum, given that neither the presupposition nor the assertion of English *the* may be extended to *iʔ* or *t*, and that both of these properties are crucial components to a standard Fregean analysis of definite determiners, I conclude that neither of these particles are definite.

3.3 *i?* and *t* are not English-style existential indefinites

Okanagan *i?* is clearly not a definite determiner, but it is possible that it could be similar to the English indefinite determiner *a*, as represented in (53):

$$(53) \quad \llbracket a \rrbracket = \lambda P. \lambda Q. \exists x [P(x) \wedge Q(x)]$$

Assuming (53) for *i?* entails, among other things, that it asserts the existence of some individual that satisfies the nominal property.⁴⁶ Since there is no presupposition or assertion of uniqueness associated with either *a* or *i?*, as we have seen, (53) might be taken as a plausible candidate for *i?*.

The problem with extending (53) to *i?* is that the referent can be *any* individual which satisfies the nominal property. This property essentially precludes English *a* DPs from being used co-referentially, at least in non-variable binding contexts.

Okanagan *i?* easily allows co-referential readings. Gillon (2006, 108) claims that in *Skwxú7mesh*, co-reference between two deictic DPs with the same noun is expected because of domain restriction, but since maximality is only implicated and not asserted, pragmatics can overrule a co-referential reading. (54a) shows that in Okanagan, an *i?* DP does not force a co-referential reading, which is of course expected under a denotation like (53), but (54b) shows that an *i?* DP may just as easily allow a co-referential reading.⁴⁷

- (54) a. *wik-n* *i?* *šwʰxi?* *l* *ntqʰtməlx*, *uʔ*
 see-(DIR)-1SG.ERG DET mountain.goat LOC Quilchena CONJ
wik-n *i?* *šwʰxi?* *l* *spáxmən*.
 see-(DIR)-1SG.ERG DET mountain.goat LOC Douglas.Lake
 I saw a mountain goat in Quilchena, and I saw a mountain goat in Spaxmen.

Consultant's Comment: Good, 2 different goats.

⁴⁶I overlook for a moment the fact that *i?*, unlike *a*, does not create a generalized quantifier.

⁴⁷Within the same sentence, and even across sentences, null pronominals are often preferred over overt DPs as a topic maintenance strategy (cf for example Davis (1994) for relevant data in *St'át'imcets* and Gerds and Hukari (2003) for *Halkomelem*). For example, a co-referential reading of (54a) is possible if there is null pronominal in the second conjunct, rather than an overt DP (i):

- (i) *wik-n* *ixi?* (*i?* *šwʰxi?*) *l* *ntqʰtməlx*, *uʔ* *wik-n*
 see-(DIR)-1SG.ERG DEM DET mountain.goat LOC Quilchena CONJ see-(DIR)-1SG.ERG
l *spáxmən*.
 LOC Douglas.Lake
 I saw a mountain goat in Quilchena, and I saw (the same one) in Spaxmen.

- b. John n-ʔulqús-s iʔ l n̄x̄lsʔáʔx^wtn, uʔ Mary
 John n-lift-(DIR)-3SG.ERG DET LOC window CONJ Mary
 n-xnú-s (iʔ l n̄x̄lsʔáʔx^wtn).
 n-close-(DIR)-3SG.ERG DET LOC window
 John opened a window, and Mary closed the window.

Consultant’s Comment: Same window, just to make it clear, you say “window”.

Consider that in a context like (54a), it is implausible that the same mountain goat could be at Quilchena and Spaxmen at the same time, since these two reserves are 15 kilometers apart, while in (54b), it is entirely plausible that Mary closed the same window which John opened. Note also that in English, it is infelicitous to say *John opened a window, and Mary closed a window*, if in fact the intended referent is the same window. Linguistic and extra-linguistic contextual factors both help to determine whether the referent of an *iʔ* DP is identical-to or different-than a previous mention of the same DP. As such, Okanagan *iʔ* is inextricably tied to the context, a variable which (53) unfortunately does not include.

Oblique marked nominals in Okanagan are consistently indefinite and non-specific (52) (Mattina, 2006), and appear to pattern more closely to English indefinites than *iʔ* DPs. Once a discourse referent has been introduced, it is infelicitous to refer back to the same referent with an oblique marked nominal, as illustrated by (55).

- (55) a. #kn ʔaws-píx-əm t spiʔscíʔt. kn wík-əm t
 1SG.ABS GO-hunt-MID OBL yesterday 1SG.ABS see-MID OBL
 skəmxíst, uʔ kn tʔap-ám t skəmxíst.
 bear CONJ 1SG.ABS shoot-MID OBL bear.
 I went hunting yesterday, and I saw a bear, and I shot the bear.
- b. kn ʔaws-píx-əm t spiʔscíʔt. kn wík-əm t
 1SG.ABS PAST-hunt-MID OBL yesterday 1SG.ABS see-MID OBL
 skəmxíst, uʔ tʔap-nt-ín iʔ skəmxíst.
 bear CONJ shoot-DIR-1SG.ERG DET bear.
 I went hunting yesterday, and I saw a bear, and I shot the bear.

This pattern is consistent with an analysis whereby *iʔ* narrows the domain under discussion, or in the case of (55b), references a singleton set. *t* does not narrow the domain under discussion, and the implicature in (55a) is that there are two different bears under discussion.

Oblique *t*, however, also cannot be analyzed as an English-style indefinite. Aside from the fact that it does not create a generalized quantifier, it also does not license specific or other types of wide-scope readings which *a* exhibits. Furthermore, given that it may co-occur with *iʔ*, there is the danger of semantic redundancy if *t* were semantically meaningful. I argue instead that *t* is semantically vacuous.

3.4 *i?* is not a St'át'imcets-style widest-scope indefinite

Matthewson (1999) analyzes St'át'imcets assertion-of-existence determiners as widest-scope indefinite determiners, utilizing a choice-function analysis originally developed by Reinhart (1997). Assertion-of-existence determiners may be understood as having denotations resembling the following:⁴⁸

$$(56) \quad \lambda P[f[CH(f) \wedge f(\lambda x.P(x))]]$$

The choice function in this formula selects one individual from the nominal domain. Matthewson also assumes that the choice function is existentially closed at the highest level (i.e. for St'át'imcets, the speaker's discourse situation). This additional stipulation correctly derives the widest-scope readings characteristic of St'át'imcets assertion-of-existence DPs, and prevents e-type and bound variable readings.

The strongest piece of evidence against analyzing Okanagan *i?* as a widest-scope indefinite, comes from data suggesting that *i?* is possible in contexts which do not assert the existence of any individual. This is clearly shown to be the case with data where *i?* scopes under negation.

- (57) a. *i?* sqəltmíx^w luta? ka?kíc-ís *i?* sənktəca?sqáxa?
 DET man NEG find-(DIR)-3SG.ERG DET horse
 The man didn't find any/the horses.
- b. lut ac-my-st-ín *i?* yl-ylmíx^wəm
 NEG CUST-know-CAUS-1SG.ERG DET IRED-CHIEF
 I don't know any/the chiefs.

Context: Answer to "Do you know any chiefs?"

(57b), for example, has an interpretation where the speaker is asserting that it is not the case that there exists a set of chiefs, such that the speaker knows this set of chiefs. (57b) also has a secondary interpretation which surfaces in definite contexts. For this secondary interpretation, the existential quantifier takes scope over negation, and the resulting English translation is "I don't know the chiefs." The interpretation of these sentences is dependent on the context.⁴⁹

For Okanagan, an unambiguous narrow scope reading of an object nominal may be achieved by using the oblique marker *t* and an intransitive form, rather than the determiner *i?*. Compare transitive (58a-59a) which have *i?* DP objects, with (58b-59b) which have oblique-marked KP objects.

⁴⁸Matthewson (1999) does not give an explicit semantics for assertion-of-existence determiners. Matthewson (2008) does give an explicit semantics, utilizing the theoretical notion of situations, which I make passing reference to in this paper. (56) is simply meant to give the reader a general idea.

⁴⁹Skwxú7mesh deictic determiners also apparently allow narrow-scope readings under negation (Gillon, 2006, 95), but it is important to note that St'át'imcets assertion-of-existence determiners are never compatible with narrow scope interpretations (Matthewson, 1998), except when they are universally quantified.

- (58) a. lut t̥ c-wík-st-n iʔ sqəltmíx^w
 NEG EMPH CUST-see-CAUS-1SG.ERG DET man
 k-c-ncíw̥-əm-s.
 k-CUST-wash.dishes-MID-3SG.POSS
 I've never seen a/the man washing dishes.
- b. lut t̥ kn c-wík-əm t sqəltmíx^w t
 NEG EMPH 1SG.ABS CUST-see-MID OBL man OBL
 k-c-ncíw̥-əm-s.
 k-CUST-wash.dishes-MID-3SG.POSS
 I've never seen a man wash dishes.
- (59) a. í iʔ sqíl^w iʔ wík-n, lut
 EMPH DET Indian.people DET see-(DIR)-1SG.ERG NEG
 wík-n iʔ sm-sámaʔ.
 see-(DIR)-1SG.ERG DET IRED-white.people
 I only see the Indian people, I didn't see any/the samaʔ.
- b. í iʔ sqíl^w iʔ wík-n, lut kn
 EMPH DET Indian.people DET see-(DIR)-1SG.ERG NEG 1SG.ABS
 t̥ wík-əm t sm-sámaʔ.
 EMPH see-MID OBL IRED-white.people
 I only see the Indian people, I didn't see any samaʔ.

Under their narrow scope readings, the two forms in each pair essentially convey the same meaning, however (58a-59a) have an additional wide-scope reading of the object nominal which (58b-59b) do not.⁵⁰

Okanagan *iʔ* may also scope under modals and if-clauses, a fact which sets Okanagan apart from both St'át'imcets assertion-of-existence and Skwxú7mesh deictic determiners. (60a,b) demonstrate how an *iʔ* DP may scope under a modal, and (61a,b) show *iʔ* DPs taking narrow scope with respect to if-clauses:

- (60) a. iʔ sqəltmíx^w cmay kaʔkíc-ís iʔ sənkt̥caʔsqax̥aʔ,
 DET man EPIS find-(DIR)-3SG.ERG DET horse
 † íklíʔəlx.
 COMP DEM-3PL.ABS
 The man might find a horse, if there are any out there.

Context: Set in a strange land, the speaker has no idea if any horses even exist here.

⁵⁰A reading semantically more-or-less equivalent to the narrow scope interpretation of *iʔ* is achieved by semantic incorporation of the *t* nominal (Chung and Ladusaw, 2004). I will discuss the details in my analysis section.

- b. *cmay c-x^wuy iʔ ʔəʔəʔʔəʔ.*
 EPIS Cisl-go DET elders
 Narrow scope: There might be a few old men that will come.
 Wide Scope: The elders might come.

Context: You've invited all the old men and women to come to a party, but so far only the women have RSVPd.

- (61) a. *cak^w ʔast ʔaʔ c-kic-x iʔ knaqs t ʔəʔəʔəʔ.*
 DEON good COMP Cisl-arrive-INTR DET one OBL elder
 It'd be good if an elder came.

Context: You're planning for a party, and you're hoping at least one elder comes, no-one in particular.

- b. *cak^w Spike ʔaʔ k(ʔ)-sq^wsiʔ, cmay ixíʔ iʔ sq^wsiʔ-s*
 DEON Spike COMP HAVE-son EPIS DEM DET son-3SG.POSS
iʔ kʔ- ylmíx^wəm.
 DET FUT-chief

If Spike had a son, I guess his son would be the chief.

The St'át'imcets equivalents of the examples in (57-61) all require the non-assertion-of-existence determiner *ku*. Although neither Okanagan *iʔ* nor St'át'imcets *ti...a* encode definiteness, we have seen that Okanagan *iʔ* permits a wider range of readings than St'át'imcets assertion-of-existence determiners. On this basis, and from data discussed in section 3.1, I conclude that *iʔ* does not require a widest-scope interpretation.

3.5 Towards a domain restriction analysis of *iʔ*

Previous sections have shown that *iʔ* is not a deictic or definite determiner, nor is it an English or St'át'imcets-style indefinite. Having ruled out a presuppositional, or uniqueness-asserting account of *iʔ*, and having shown to some extent that *iʔ* is sensitive to the context in which it is used, I present evidence that *iʔ* is a contextually sensitive domain restrictor, following Gillon's (2006) analysis of Skwxú7mesh determiners:

$$(62) \quad \llbracket iʔ \rrbracket = \lambda P[f(\lambda x[P(x) \wedge C(x)])]$$

The formula in (62) shares similarities with Matthewson's (1999) choice-function analysis of assertion-of-existence determiners in St'át'imcets, but with two major differences: First, there is no additional stipulation that the choice function be closed at the highest level (Matthewson, 2001), and second, the context is explicitly encoded as a free variable.

The strongest evidence for the domain restriction analysis comes from data showing that although uniqueness and maximality is not asserted by *iʔ*, these qualities are implied. The implicature is scalar in nature, and arises from

an opposition between *i?* and *t* (in syntactically non-existential contexts), and between *i?* and the prefix *kʔ-* “have” (in syntactically existential contexts). The oblique marker *t*, and the prefix *kʔ-*, are unambiguously non-specific and indefinite. A speaker who uses *i?* is therefore taken to imply uniqueness and/or maximality of a referent by virtue of the fact that he/she did not use *t* or *kʔ-*. This is the crux of my argument.

Before presenting data showing that *i?* only implicates uniqueness and maximality, it is important to show that uniqueness implicatures may also arise as a result of a noun being lexical singular, and so it is necessary to give a short explanation concerning the basics of plurality in Okanagan. Additionally, it is important to note that *i?* DPs permit both non-maximal readings in existential sentences, as well as maximal generic readings. I take this to be indirect evidence for the domain restriction analysis because the formula in (62), unlike an English-style definite denotation for example, permits such readings. Since a theory of plurality is prior to a proper understanding of generics, my discussion will occur in the following order (i) plurality in Okanagan, (ii) *i?* DPs in existential sentences, and (iii) generic readings of *i?* DPs. Afterwards, I present data showing that uniqueness/maximality is only implied.

3.5.1 A short foray into plurality

Plurality is not encoded by the Okanagan determiner system, unlike in St’át’imcets or Nuxalk, for example.⁵¹ With *i?* being a singleton determiner, there is no other determiner by which a plurality distinction might be made. Since Okanagan determiners do not mark number, the burden of plural marking lies primarily with the noun itself. Plurality of a noun phrase may be conveyed in one of several ways, depending on whether the noun is specified or unspecified for singularity or plurality.

Some nouns are lexically singular: they may only ever denote singular individuals.⁵² The DP in (63a) can only ever denote one woman, the DP in (63b) can only ever denote one policeman, and (63c) can only mean that one woman kissed one child.

(63) a. ixí? x^wist i? tkʔmíl^w.
 DEM walk DET woman
 That woman went for a walk.

b. i? sx^wIkam təc-x^wuy.
 DET policeman LOC-go
 A policeman will come. (Consultant’s Comment: Just one.)

⁵¹Most Salish languages, including Skwxú7mesh, do not obligatorily mark number on their determiners.

⁵²The plural form of “woman” is the lexically suppletive *sma?m?ím*, while the plural form of “policeman” *sx^wsx^wIkám* involves reduplication.

- c. $i\text{?}$ $tk\acute{t}m\acute{m}l\acute{x}^w$ $\acute{c}u\acute{m}q\acute{s}-\acute{o}s$ $i\text{?}$ $sk^w k^w \acute{y}m\acute{e}l\acute{t}$.
 DET woman kiss-(DIR)-3SG.ERG DET child
 The woman kissed the child.

Plural individuals do not fall under the denotations of lexically singular nouns.⁵³ It is ungrammatical to use the universal quantifier $y\acute{a}y\acute{a}y\acute{t}$ “all” with the singular form $tk\acute{t}m\acute{m}l\acute{x}^w$ “woman” (64a), since the universal quantifier in this case can only quantify over subparts of an atomic individual. A speaker will always correct $tk\acute{t}m\acute{m}l\acute{x}^w$ “woman” to $sma\text{?}m\text{?}i\acute{m}$ “women” in these contexts.

- (64) $y\acute{a}y\acute{a}y\acute{t}$ $i\text{?}$ $*tk\acute{t}m\acute{m}l\acute{x}^w/sma\text{?}m\text{?}i\acute{m}$ $\acute{c}u\acute{m}q\acute{s}$ $i\text{?}$
 all DET *woman/women kiss-(DIR)-3SG.ERG DET
 $sk^w k^w \acute{y}m\acute{e}l\acute{t}$.
 child
 All the *woman/women kissed the child.

Other nouns, like $sp\acute{e}pl\acute{m}a\text{?}$ “rabbit” (65) and $s\acute{e}nk\acute{t}\acute{c}a\text{?}sq\acute{a}\acute{x}a\text{?}$ “horse” (66), are number-neutral:

- (65) $c-kic-x$ $i\text{?}$ $sp\acute{e}pl\acute{m}a\text{?}$.
 CISL-arrive-INTR DET rabbit
 Some rabbits arrived. / A rabbit arrived.

- (66) a. $k-n\acute{a}-naqs$ $i\text{?}$ $s\acute{e}nk\acute{t}\acute{c}a\text{?}sq\acute{a}\acute{x}a\text{?}$.
 k-IRED-one DET horse
 The horse is alone.

- b. $x^w\text{?}it$ $i\text{?}$ $s\acute{e}nk\acute{t}\acute{c}a\text{?}sq\acute{a}\acute{x}a\text{?}$ $i\text{?}$ $\text{?}al-\text{?}i\acute{l}x^w\text{?}t$.
 many DET horse DET IRED-hungry
 Many horses starved.

Both singular and plural individuals fall under the denotation of number-neutral nouns.⁵⁴

Finally, some nouns are specified as plural, either lexically or as a result of reduplication, a pluralization operation in Okanagan. Nouns such as the suppletive plural $sma\text{?}m\text{?}i\acute{m}$ “women” in (67a) and reduplicated plural $sq\acute{e}lq\acute{e}l\acute{t}m\acute{i}x^w$ “men” in (67b) include only plural individuals in their extensions. Reduplicative plural nouns may be derived from both lexically singular nouns like $sq\acute{e}l\acute{t}m\acute{i}x^w$ “man” (as in 67b), and number-neutral nominals like $skm\acute{x}i\acute{s}t$ “bear(s)” in (68).⁵⁵

⁵³Maximality is equivalent to uniqueness for lexically singular nouns.

⁵⁴As Matthewson (2001) notes for St’át’imcets, “plural morphology is not obligatory on the surface, and some nouns do not have a plural form which differs from their singular form.” It is consistent with my analysis to also assume that a * operator in the head of Number Phrase denotes an abstract plural feature, and that the absence of * corresponds to a vacuous singular number feature.

⁵⁵The availability of a reduplicative plural for nouns like $skm\acute{x}i\acute{s}t$ “bear(s)” in (68b) favors a singular interpretation of the non-reduplicated form.

- (67) a. k^wu kíl-nt-m iʔ smaʔmʔím.
 1PL.GEN chase-DIR-1PL.ERG DET women
 The women chased us.
- b. yaʕyáʕt mǫ́ínk iʔ s-qəl-qəłtmíx^w.
 all full DET IRED-man
 All of the men are full.
- (68) a. iʔ skmxíst taʔlíʔ ʕmínk-s iʔ síyaʔ.
 DET bear very like-(caus)-3sg.erg DET saskatoon
 The bear(s) like(s) the saskatoons.⁵⁶
- b. iʔ s-km-kmxíst taʔlíʔ ʕmínk-s iʔ síyaʔ.
 DET IRED-bear very like-(CAUS)-3SG.ERG DET saskatoon
 The bears like the saskatoons.

Plurality⁵⁷ of an argument can also be marked on Okanagan predicates, either suppletively (69), or via predicate reduplication (70). For (69a), the suppletive plural predicate *kʔk^wl'ít^w* “land in water” is the only morphological means by which plurality of the argument DP is indicated, since *spqmíx* “swan” is itself number-neutral. That is, a plural predicate is sufficient to indicate plurality of a DP argument. Plural reduplication on a nominal often co-occurs with a plural predicate (70b):

- (69) a. iʔ spqmíx kʔk^wl'ít^w iʔ l tík^wt.
 DET swan land.in-water(PL) DET LOC lake
 The swans landed in the lake.
- b. kʔʔamt-itk^w iʔ spqmíx.
 land.in-water(SG) DET swan
 (One) swan landed in the water.
- (70) a. iklíʔ iʔ tətúwít ʔíl^wt.
 DEM DET boy hungry
 A boy over there is hungry.
- b. iklíʔ iʔ túʔtwít ʔal-ʔíl^wt.
 DEM DET boys IRED-hungry
 More than one boy over there is hungry.

When a number-neutral noun is derived into a plural noun via reduplication, the operation effectively removes all singular individuals from the denotation of the noun. A plural predicate may have this same effect on a number-neutral nominal DP argument. In (71) below, the number-neutral noun *skəmxíst*

⁵⁷Or perhaps pluractionality.

“bear(s)” is used in conjunction with an inherently plural predicate like $\lambda\acute{a}x^w\acute{o}nt$ “kill many”. The predicate removes the singular individuals from the denotation of the noun, entailing that the cardinality of bears killed is greater than one.⁵⁸

- (71) kn ʔaws-píḫ-əm t spiʔscíft. kn wík-əm t mus
 1SG.ABS go-hunt-MID OBL yesterday 1SG.ABS see-MID OBL four
 t skəmxíst, uł ḫəx^w-nt-ín iʔ skəmxíst.
 OBL bear CONJ kill.many-DIR-1SG.ERG DET bear
 I went hunting yesterday. I seen four bears, and I killed them all. (VG)

The speaker translates the sentence as meaning “all” the bears got killed, despite the fact that no universal quantifier is present.⁵⁹

In sum, the determiner *iʔ* ranges over both singular and plural individuals, as it must, given that there is no singular/plural distinction encoded by Okanagan determiners. The range of the determiner can be restricted to plural individuals by either plural marking on the nominal or on the predicate, and can be restricted to singular individuals if the noun or the predicate is lexically singular.

With the basic mechanics of Okanagan plurality under our belts, I now discuss *iʔ* DPs in existential sentences, and generic readings of *iʔ* DPs, before focusing on data showing that there are uniqueness and maximality implicatures associated with *iʔ*.

3.5.2 Existential sentences and *iʔ* DPs

For Okanagan, *iʔ* DPs are commonly volunteered as subjects of sentences denoting existential propositions (72).⁶⁰ In many existential contexts, forms like (72) are interchangeable with forms like (73), which do not have *iʔ* DP subjects, but rather prefix a nominal predicate with $(ʔa)k\acute{t}$ - “have”.⁶¹

- (72) a. k̄liʔ iʔ tətʔwít ʔilx^wt.
 DEM DET boy hungry
 There is a hungry boy over there.
- b. ik̄lʔ iʔ sḫaʔcínəm iʔ k̄l wist.
 DEM DET deer DET LOC high
 There’s deer up in the hills.

⁵⁸ $\lambda\acute{a}x^w\acute{o}nt$ “kill many” may not be used in a situation in which only one bear has been killed. A suppletive form *púlst* “kill (singular)” must instead be used.

⁵⁹(71) can also mean that a plurality of bears, not necessarily all, got killed. This shows that maximality is only an implicature. I discuss this example more in section 3.5.4.

⁶⁰Matthewson (1999) cites similar data for St’át’imcets assertion-of-existence determiners, as does Gillon (2006, 87) for Skwxú7mesh deictic determiners.

⁶¹These are not always interchangeable, however. There is an implicature of uniqueness/maximality associated with using the *iʔ* forms which surfaces in certain contexts, and which renders them infelicitous as existentials. I discuss this further in section 3.5.4.

- (73) a. $\text{kli}^? \text{ k}\acute{\text{t}}\text{-t}\acute{\text{t}}\text{w}\acute{\text{t}} \text{ i}^? \text{ }^? \text{ilx}^{\text{w}}\text{t.}$
 DEM HAVE-boys DET hungry
 There is a hungry boy over there.
- b. $\text{ikl}\acute{\text{f}}^? \text{ k}\acute{\text{t}}\text{-s}\acute{\text{x}}\text{a}^? \text{c}\acute{\text{i}}\text{n}\acute{\text{a}}\text{m} \text{ i}^? \text{ kl} \text{ w}\acute{\text{i}}\text{st.}$
 DEM HAVE-deer DET LOC up.high
 There's deer up in the hills.

Below, (74a,b) show that *i?* is compatible with the non-proportional weak quantifier *x^w ?it* “many” in these contexts,⁶² but not the strong quantifier *ya?ya?it* “all”.

- (74) a. $\text{ta}^? \text{il}\acute{\text{f}}^? \text{ x}^{\text{w}} \text{?it} \text{ i}^? \text{ s}\acute{\text{x}}\text{a}^? \text{c}\acute{\text{i}}\text{n}\acute{\text{a}}\text{m} \text{ i}^? \text{ kl} \text{ w}\acute{\text{i}}\text{st.}$
 very many DET deer DET LOC high
 There are many deer on the mountain.
- b. $*\text{ta}^? \text{il}\acute{\text{f}}^? \text{ ya}^? \text{ya}^? \text{it} \text{ i}^? \text{ s}\acute{\text{x}}\text{a}^? \text{c}\acute{\text{i}}\text{n}\acute{\text{a}}\text{m} \text{ i}^? \text{ kl} \text{ w}\acute{\text{i}}\text{st.}$
 very all DET deer DET LOC high
 *There are all the deer on the mountain.

Under the assumption that English and Okanagan existential sentences should pattern similarly, this contrast provides supporting evidence that these are indeed existential sentences (Milsark, 1977). Note also that any assertion of uniqueness or maximality is incompatible with the non-proportional reading of *x^w ?it* “many”.

Under a domain restriction analysis of *i?* (62), the interpretations of *i?* DPs in existential sentences arise from there being a nominal domain that is contextually unrestricted. That is, when the entire domain of P is contextually salient ($P \subset C$), a non-maximal singular or plural individual selected by the choice function may have an existential interpretation. Readings of *i?* DPs in existential sentences are equivalent to other non-specific indefinite readings, except that the absence of domain restriction results in their being interpreted as referencing instantiations of a kind.⁶³

Okanagan DPs may also denote maximal plural individuals. In the absence of contextual restriction, the result will be a universal, generic reading of the *i?* DP. I turn to a discussion of these presently.

3.5.3 Generic readings of *i?* DPs

Generic interpretations of nouns require the *i?* determiner in Okanagan (75a-c).⁶⁴ Both number-neutral and plural nominal DPs allow generic readings,

⁶²The quantifier is the syntactic predicate in these sentences. Strong quantifiers cannot function as predicates in Okanagan, and in much of Interior Salish.

⁶³I explain this idea further in section 4.

⁶⁴Similar data exist for Shuswap (Gardiner, 1993), and St'át'imcets (Matthewson, 1998). Determiners are apparently optional in generic contexts in Moses-Columbian (Mattina, 2006, 127).

as shown by the optionality of reduplication on *skmxíst* “bear” in (75a). The sentences in (75a-c) also have non-generic interpretations equivalent to *The bear(s) like(s) the saskatoons*, *The dog likes to run*, and *The farmer is intelligent*:

- (75) a. $iʔ$ s-(km)-kmxíst $\check{x}mínk$ -s $iʔ$ síyaʔ.
 DET bear(s) like-(CAUS)-3SG.ERG DET saskatoon
 (All) bears like saskatoons.
- b. $iʔ$ kəkʷáp táʔliʔ $\check{x}mínk$ -s $iʔ$ snax^wt.
 DET dog very like-(CAUS)-3SG.ERG DET run(ANIMAL)
 Dogs like to run.
- c. $iʔ$ səx^wk^wan^tqam táʔliʔ sisyús.
 DET farmer very smart
 Farmers are intelligent.

It is possible that a null GEN operator, similar to that which von Stechow (2004) posits for English (76), is present for the generic readings of the sentences in (75).

- (76) $\llbracket \text{GEN} \rrbracket = \lambda p. \lambda q. \text{Every (normal) minimal situation } s \text{ such that } p(s) \text{ is part of a minimal situation } s' \text{ such that } q(s')$

The GEN operator has the effect of universally quantifying over situations containing random individuals which fall under the denotation of a DP (Heim, 2011), and for predicates which distribute to atomic individuals (e.g. *$\check{x}mínks iʔ síyaʔ$* “like saskatoons”, *$táʔliʔ \check{x}mínks iʔ snax^wt$* “really like to run”, and *$táʔliʔ sisyús$* “very smart” in (75)), the GEN operator will derive generic readings for the DPs. I claim, however, that a GEN operator is ultimately unnecessary for Okanagan, since the mechanics of domain restriction are sufficient to derive these readings.

Some predicates in English do not distribute to atomic individuals, but only apply to kinds (Carlson, 1977). Consider (77):

- (77) Bears get bigger as you go north.

The complex predication “get bigger as you go north” is not true of any atomic individual bear, but only the kind “bear”. As such, sentences like (77) are not amenable to the GEN analysis, but suggest that nouns must sometimes have kinds in their extensions. Independent evidence for kind-denoting nominals is not forthcoming for Okanagan. (78) was elicited as a translation of the generic sentence (77), but was later translated back into English as an existential sentence:

- (78) $\dot{k}l$ $\acute{c}a\dot{t}t$ $i?$ $t\acute{o}m\acute{x}^w\acute{u}l\acute{x}^w$, $ta?l\acute{i}?$ k^wuk^w $p\acute{i}s\acute{\lambda}at$ $i?$
 LOC cold DET ground very EVID large.PL DET
 $k\acute{i}?\acute{l}awna$ $na?t$ $sk\acute{o}m\acute{x}\acute{i}st$.
 grizzly.bear CONJ black.bear

Grizzlies and black bears get bigger as you go north. (target)

Volunteered: Where there's a cold country, there's lots of big deer and grizzly bears.

Under an existential interpretation of (78), the complex DP $i? k\acute{i}?\acute{l}awna na?t sk\acute{o}m\acute{x}\acute{i}st$ denotes non-specific individual grizzlies and black bears, not their corresponding kinds.⁶⁵ The generalization seems to be that if an Okanagan sentence has a generic interpretation, it also has either an episodic (75) or an existential interpretation (78). I take this as evidence that the $i?$ DPs within these sentences denote individuals rather than kinds.⁶⁶

By assuming that kinds are equivalent to contextually unrestricted maximal pluralities in Okanagan, generic readings fall out independently from the semantics of domain restriction, and a separate GEN operator is unnecessary. In other words, a generic versus non-generic interpretation of an Okanagan $i?$ DP depends on whether the DP denotes all individuals which satisfy a property (i.e. a contextually unrestricted maximal plural individual, or kind), or a subset of individuals which satisfy a property (i.e. a non-maximal singular or plural individual).

Firstly, consider that although plural definites do not have generic readings in English (only bare plurals and singular definites), other languages such as Spanish may use definite plurals to refer to kinds (Heim, 2011). Okanagan is therefore not typologically unusual in allowing generic interpretations of plural DPs,⁶⁷ and so there is precedent for equating kind readings with maximal pluralities for some languages.

Secondly, under an analysis where kinds are equivalent to maximal pluralities, bare plurals in English may be analyzed as unrestricted definites (Heim, 2011), that is, they presuppose the existence of a contextually unrestricted maximal plural individual. Under this analysis, the absence of contextual restriction is crucial, since if a nominal with individuals in its extension is contextually re-

⁶⁵And is therefore also amenable to the GEN analysis. In this case, GEN would be restricted by the WH-clause $k\acute{l} ca\dot{t}t i? t\acute{o}m\acute{x}^w\acute{u}l\acute{x}^w$ "where there's a cold country."

⁶⁶Demonstratives, too, can denote maximal pluralities. In (i) below (cf 49b above, a minimal pair sentence without the demonstrative), the $i?$ DP is interpreted as a non-specific singular or plural individual under the scope of the temporal adverbial, while the demonstrative denotes the maximal plurality which instantiates the non-specific individual.

(i) $?i\acute{t}-n$ $ix\acute{i}?$ $i?$ $q\acute{a}q\acute{x}^w\acute{o}l\acute{x}$ $ya\acute{f}y\acute{a}\acute{f}t$ $s\acute{x}\acute{o}l\acute{x}\acute{i}\acute{a}l\acute{t}$.
 eat-(DIR)-1SG.ERG DEM DET fish all day
 I eat that fish every day.

SM: Yeah, you're talking about whatever kind of fish, ling-cod, kokanee, salmon.

⁶⁷Bare plurals are independently ruled out in Okanagan, since bare nominals are always ungrammatical in non-predicative positions. cf Matthewson (2001, 185) for similar thoughts on St'át'imcets.

stricted, the reading can only be definite or existential, never generic.

Because *iʔ* may independently denote contextually unrestricted non-maximal pluralities (cf section 3.5.2), and does not presuppose or assert maximality (cf section 3.2), but allows maximal readings in definite contexts (cf section 3.5.4), it is logical that *iʔ* should also allow maximal readings in contextually unrestricted contexts. In other words, since existential quantification over plural individuals is necessary for plural existential readings, generic readings might arise from universal quantification over pluralities, or under a choice function analysis, selection of the maximal plural individual which satisfies a contextually unrestricted predicate.

The only difference, then, between the non-specific readings of *iʔ* DPs in existential sentences, discussed in 3.5.2, and the generic readings of *iʔ* DPs discussed in this section is the size of the plurality selected by the choice function: non-maximal plural individuals may be selected only for the former case. This correctly predicts variability in the interpretations of sentences like (78). In unrestricted contexts, an *iʔ* DP may denote either “instantiations of a kind” (i.e. a non-maximal plurality), or “a kind” (i.e. a maximal plurality).

In sum, since there is no evidence that Okanagan nominals *must* have kinds in their extensions, it is preferable to assume that kinds are equivalent to maximal pluralities, and that generic readings of Okanagan DPs arise as a result of a vacuous application of domain restriction in addition to a choice function which selects the maximal plural individual. Generic readings of Okanagan DPs are thus simply a special type of contextually unrestricted existential indefinite, the only difference being that the maximal plural individual must be selected.

3.5.4 *iʔ* implies uniqueness and maximality, *t* does not

Data suggest that *iʔ* asserts neither uniqueness in the case of singular referents, nor maximality in the case of plural referents, but there is nevertheless evidence that *iʔ* implies both of these qualities.

By way of example, recall that (71) was translated by the speaker as meaning all the bears got killed, despite the fact that no universal quantifier is present. But (71) was *also* judged felicitous in contexts where *any* number between two and four bears were killed, and the remainder, if any, escaped. The final DP *iʔ skəmxiʔst* denotes only pluralities of bears because of the lexically plural predicate, but the DP does not necessarily denote the *maximal* plurality. There is thus an implicature of maximality associated with the *iʔ* DP, but no assertion, as we have already seen.

An implicature of maximality is also evident from comparing (43) above, repeated here as (79b), with (79a). For (79a), the implication is that *all* the berries were eaten, but this implicature is cancellable (79b).

- (79) a. ʔiʔ-n iʔ sʔyqaʔq.
eat-(DIR)-1SG.ERG DET berry
I ate (all) the berries.

- b. ʔiɬ-n iʔ spʲqatq, náxəmtɪ ilíʔ
 eat-(DIR)-1SG.ERG DET berry CONJ DEM
 kím-xt-m-n iʔ spʲqatq.
 except-APPL-2SG.OBJ-1SG.ERG DET berry
 I ate some/*the berries, but I saved you some.

Context: There was a bowl of berries on the table, but now it is gone. I ask “What happened to the berries?” You reply:

An implicature of uniqueness can be clearly seen in many question-and-answer contexts involving *iʔ* DPs.⁶⁸ In a definite context, (80) questions the whereabouts of a specific ball, and it is only felicitous to answer this question using an *iʔ* DP (81a).

- (80) xʔkínəp iʔ púk^wlaʔ?
 where DET ball
 Where is the ball?

- (81) a. cəmi(n)-n iʔ púk^wlaʔ.
 throw-(DIR)-1SG.ERG DET ball
 I threw a/the ball.

- b. #kn cəmín-əm t púk^wlaʔ.
 1SG.ABS throw-MID OBL ball
 I threw the/*a ball.

Superficially, this contrast resembles the definite/indefinite contrast seen in English. The DP *iʔ púk^wlaʔ* in (81a) certainly denotes the unique ball in the discourse context, but crucially, it is neither presupposed nor asserted to be the unique ball, this is simply a fact about the context. Responses involving oblique-marked nominals (81b) are infelicitous in these contexts because *t* is not contextually sensitive (i.e. it is not a domain restrictor), and so cannot address the uniqueness implicature introduced by the question. Because of this, (81b) is not a possible answer to the question poised as (80). (82-83) exhibit similar data.

- (82) uc wík-nt-x^w iʔ smaʔmʔím?
 YNQ see-DIR-2SG.ERG DET women
 Did you see those women?

⁶⁸See (30-31) above.

(83) a. way' wík-n i? sma?m?ím.
 yes see-(DIR)-1SG.ERG DET women
 Yes, I saw the women.

b. #way' kn wík-əm t sma?m?ím.
 yes 1SG.ABS see-MID OBL women
 Yes, I saw the women.

Context: Discussing a set of women that were in attendance at a party the night before. Both speaker and hearer were there.

The opposite pattern obtains in question-and-answer contexts where the question includes an oblique-marked nominal. A felicitous answer to (84) includes an oblique marked nominal (85a), not an *i?* DP (85b).

(84) uc k^w wík-əm t spəplína??
 YNQ 2SG.ABS see-MID OBL rabbit
 Did you see a/any/some rabbit(s)?

(85) a. way' kn wík-əm t spəplína?
 yes 1SG.ABS see-MID OBL rabbit
 Yes, I saw a/some rabbit(s).

b. #way' wík-n i? spəplína?
 yes see-(DIR)-1SG.ERG DET rabbit
 Yes, I saw a/some rabbit(s).

Context: Two friends are discussing their ravaged garden, and wonder what could possibly have been the culprit.

Since *t* is always non-specific, the questioner in (84) is not referencing any specific set of rabbits, yet (85b) answers (84) as if the questioner *had* been implying reference to a specific set of rabbits.

Interestingly, a lexically singular noun like *tkámilx^w* “woman”, does not follow this pattern (86-87). In this case, only a reply with an *i?* DP is acceptable (87b). Pluralizing the noun to *sma?m?ím* “women” (88-89) restores the pattern seen in (84-85), however.

(86) uc k^w wík-əm t tkámilx^w?
 YNQ 2SG.ABS see-MID OBL woman
 Did you see a woman/even one woman?

- (87) a. *kn wík-əm t tkłmíl^w.
 1SG.ABS see-MID OBL woman
 I saw a woman.
- b. wik-n i? tkłmíl^w
 see-(DIR)-1SG.ERG DET woman
 I saw a woman.
- (88) uc k^w wík-əm t sma?m?ím?
 YNQ 2SG.ABS see-MID OBL women
 Did you see some/any women?
- (89) a. way' kn wík-əm t sma?m?ím.
 yes 1SG.ABS see-MID OBL women
 I've seen some women. (LL, VG)
- b. #way wik-n i? sma?m?ím.
 yes see-(DIR)-1SG.ERG DET women
 I've seen the women.

Context: Your friend goes to a party. You're pretty sure there were only men at the party. You ask your friend (86) or (88).

If lexically singular nouns imply uniqueness, it is perhaps unsurprising if they are only compatible with *i?* in assertive contexts.⁶⁹

The question-and-answer contexts discussed above (80-85) show that the implicature of uniqueness and maximality associated with *i?* can give rise to definite-like effects, but these effects are not limited to question-and-answer contexts, as shown by (90).

- (90) a. x^wuy-x, ʔa?-ʔa?-ánt i? siwłk^w
 go-INTR look for-DIR DET water
 Look for the water!
 (✓ Context 1) (# Context 2)
- b. x^wuy-x, ʔa?-ʔa?-míxa?x t siwłk^w
 go-INTR look for-INTR OBL water
 Look for some water!
 (# Context 1) (✓ Context 2)

Context 1: I've hidden some things, and I tell you what I want you to go find.

Context 2: We're wandering through the desert and are both thirsty and I tell you to go look for water, and we don't know where any water is.

⁶⁹This has implications for distributivity in Okanagan, as I will discuss.

For (90a), the speaker is implying that there is a contextually-salient maximal plural individual, and ordering the addressee to go find it. In (90b), there is no such implicature, the speaker is only telling the addressee to go find some non-specific quantity of water. Now the question arises: If *iʔ* DPs can be used non-specifically, as we've seen them used in existential sentences, for example, then why is (90a) not felicitous in Context 2?⁷⁰ The answer is that in contexts involving non-vacuous domain restriction, the use of an *iʔ* DP implies uniqueness and maximality.⁷¹

The implicature of uniqueness and maximality associated with *iʔ* is grounded partially on a scalar opposition between the determiner *iʔ* and the oblique marker *t*.⁷² (91) shows the relevant scalar interaction.

(91) a. *iʔ tkʌmɪlxʷ ʔiq̣-s iʔ sipiʔ.*
 DET woman scrape-(DIR)-3SG.ERG DET hide
 The woman was scraping a hide.

Consultant: Means just one hide.

b. *iʔ smaʔmʔim ʔiq̣-səlx iʔ sipiʔ.*
 DET women scrape-(DIR)-3PL.ERG DET hide
 The women were scraping hides.

Consultant: Could be any number of hides. Could be all the same hide.

c. *iʔ tkʌmɪlxʷ ʔiq̣-əm t sipiʔ.*
 DET woman scrape-MID OBL hide
 The woman was scraping hide. (VG)

Consultant: Can be more than one.

In (91a), there is an implication that the woman is only scraping one hide. The noun *sipiʔ* “hide(s)”, like *skəmxɪst* “bear(s)” in the previous section, and *spəplɪnaʔ* “rabbit(s)” in this section, is number-neutral as evidenced by the fact that it can occur in plural environments (91b). Our knowledge of the world tells us the singular woman in (91a) is most likely only scraping one hide, and that the plurality of women in (91b) may be scraping a single, or multiple, hides. Uniqueness and maximality readings are available for both these sentences. The uniqueness reading is not available for (91c), where *sipiʔ* “hide” is introduced by the oblique marker. For (91c), only a non-specific interpretation is possible, as suggested by

⁷⁰There may be complications coming from the imperative environment that need to be checked here, but nevertheless, a complementary question also arises: Why is *t*, which is non-specific, not felicitous in existential or generic contexts? In answer to the latter, *t* never denotes maximal plurality. The absence of *t* KPs in existential sentences comes from an independent requirement that subjects are DPs.

⁷¹In context 2, since we are both thirsty, the contextually relevant set of water is limited to that which is realistically obtainable, and a maximal interpretation of the DP in this context is infelicitous, since the set may very well turn out to be empty.

⁷²The implicature also seems related to a given *iʔ* structure have an analogous, aspectually overlapping *t* structure available as a grammatical, though possibly infelicitous, alternative.

the volunteered gloss. An act of hide-scraping is compatible with any number of hides, and by uttering (90c) rather than (90a), a speaker implies non-uniqueness.

The data in (92) clarify the scalar relation between *i?* and *t*. There is a uniqueness (or maximality over subparts) implicature associated with the sentence final *i?* DP in (92a), but not for the corresponding oblique marked KP in (92b), where a partitive, non-specific reading of the nominal surfaces.⁷³ Since the context set includes only one deer, if the speaker had intended a maximal reading, he/she would have used a transitive predicate and an *i?* DP.

- (92) a. kn ʔaws-píǎ-əm uł kn tʔap-ám t sʔaʔcínəm,
 1SG.ABS go-hunt-MID CONJ 1SG.ABS shoot-MID OBL deer
 uł i-ks-pʔq-ám i? sʔaʔcínəm.
 CONJ 1SG.POSS-FUT-cook-MID DET deer
 I went hunting and I shot a deer, and I'm gonna cook the (entire) deer.

- b. kn ʔaws-píǎ-əm uł kn tʔap-ám t sʔaʔcínəm,
 1SG.ABS go-hunt-MID CONJ 1SG.ABS shoot-MID OBL deer
 uł kn ks-kʷlncút-aʔx t sʔaʔcínəm.
 CONJ 1SG.ABS FUT-cook-INCEPT OBL deer
 I went hunting and I shot a deer, and I'm gonna bake some deer for myself.

Consultant's Comment: It's the same deer. The deer that you shot, you're gonna cook some of it, you're not gonna cook the whole thing.

For (93a) below, the *i?* DP in the second conjunct refers to one of the four blankets in the first conjunct. This is predicted under a domain restriction analysis of *i?*. The context set in this case includes four blankets, and the *i?* DP in the second conjunct further restricts the set to one. In (93b) the oblique-object KP does not refer to one of the blankets in the first conjunct, since *t* does not reference the context. If the speaker had intended to refer to one of the blankets in the trunk, he/she would have chosen to reference the context set via an *i?* DP.

- (93) a. mus t sícəm ac-nqmí(n)-n i? l
 four OBL blankets CUST-place.into-(DIR)-1SG.ERG DET LOC
 trunk. kʷúl-n i? naqs i? sícəm.
 trunk make-(DIR)-1SG.ERG DET one DET blanket
 There are 4 blankets in the trunk, I made one of them.

⁷³The speaker's comments for (92b) seem to indicate that the *t* KP in the second conjunct is contextually sensitive, and co-referential with the *t* KP in the first conjunct. At best, however, the second KP exhibits accidental co-reference with non-specific sub-parts of the initial KP.

- b. mus t sícəm ac-nqmí(n)-n i? l
 four OBL blankets CUST-place.into-(DIR)-1SG.ERG DET LOC
 trunk. uʔ kn k^wúl-əm t naqs t sícəm.
 trunk CONJ 1SG.ABS make-MID OBL one OBL blanket
 There are 4 blankets in the trunk, and I'm making one.

Consultant's Comment: That would be the fifth one.

By using *i?*, then, it is understood that the speaker is referencing a contextually-salient, possibly restricted, set. For context sets involving single referents, or in sentences with DPs which include lexically singular nouns, the referent of an *i?* DP will be interpreted as unique in its context, so long as there is no overt cancellation of the uniqueness implicature. For context sets involving multiple referents, or in sentences with DPs which include lexically plural nouns, the referent of an *i?* DP will be interpreted as maximal in its context, unless a lexically singular noun is used to denote one individual from within the context set, or there is an overt cancellation of the maximality implicature. By using oblique *t*, however, it is understood that the speaker is *not* referencing a contextually-salient set.

But there is a stronger condition on the use of the oblique marker: it may not even introduce unique referents. Introducing an inherently relational noun like “mother” in (94a) or singular referents like the Sun in (95) with *t* results in an implicature that there may be more than one entity that satisfies the description. Comparing (95) with (96), we see that only non-singular referents are compatible with *t*.⁷⁴

- (94) a. #John sc-ʔaʔʔaʔ-míxaʔx t ks-k^wúy-s.
 John IMPF-look.for-INTR OBL U.POSS-mother-3SG.POSS
 John is looking for a mother-to-be-his (?).

- b. John sc-ʔaʔʔaʔ-ám-s i? sk^wúy-s.
 John IMPF-look.for-MID-3SG.POSS DET mother-3SG.POSS
 John is looking for his mother.

- (95) a. *ci^wc^wt t ʔyáʔnə^w.
 bright OBL sun
 #A sun is bright / That's a bright sun.

- b. ci^wc^wt i? ʔyáʔnə^w.
 bright DET sun
 The sun is bright.

⁷⁴The unrealized possessor prefix *ks-/kʔ-* is required in (94a). Also, note that *t* in (95) and (96) is the attributive use of *t*, not oblique *t*. Under a unified semantic account of *t*, it is interesting that both types of *t* seem to give rise to an anti-uniqueness implicature.

- (96) a. $\acute{c}i\acute{x}^w\acute{c}\acute{x}^wt$ t $\acute{c}ik^wsx\acute{o}n$.
 bright OBL lamp
 That's a bright lamp.
- b. $\acute{c}i\acute{x}^w\acute{c}\acute{x}^wt$ $i?$ $\acute{c}ik^wsx\acute{o}n$.
 bright DET lamp
 The lamp is really bright.

The anti-uniqueness implicature associated with t is essentially a scalar implicature which arises from the fact that $i?$ is a domain restrictor. In other words, because t does not imply uniqueness, yet stands in opposition to $i?$, t therefore implies anti-uniqueness.

Implicatures of uniqueness and maximality also surface for $i?$ DPs in existential sentences. As previously discussed, the subject of an existential sentence in Okanagan may be expressed either by an $i?$ DP (97a), or by prefixing a nominal with $(?a)k\acute{t}$ - "have", as in (97b):

- (97) a. kn $nstils$ $ikl\acute{i}?$ $i?$ $s\acute{i}ya?$.
 1SG.ABS think DEM DET saskatoon
 I think there's some berries over there.
- b. kn $nstils$ $ikl\acute{i}?$ $k\acute{t}$ - $s\acute{i}ya?$.
 1SG.ABS think DEM HAVE-saskatoon
 I think there's some berries over there.

Context: We are sitting in our living room, discussing a place up in the mountains where we might find saskatoons.

(97a) and (97b) are essentially equivalent in very general contexts, that is, contexts where the set of berries under discussion is not restricted. The $i?$ DP in (97a) denotes a plural individual selected from the contextually unrestricted set "saskatoon", essentially a plural instantiation of a kind. But in more specific contexts, (97a) loses its existential interpretation:⁷⁵

- (98) a. $\#kn$ $nstils$ $ikl\acute{i}?$ $i?$ $s\acute{i}ya?$.
 1SG.ABS think DEM DET saskatoon
 #I think the berries might be there.
- b. kn $nstils$ $ikl\acute{i}?$ $k\acute{t}$ - $s\acute{i}ya?$.
 1SG.ABS think DEM HAVE-saskatoon
 I think there might be some berries there.

⁷⁵Which of course suggests that these are not actually true existentials, since a non-specific interpretation becomes specific after a certain amount of domain restriction. Since $i?$ DPs which allow existential interpretations obey the Milsark effect (cf previous discussion), the prediction is that non-proportional readings of weak quantifiers in existential contexts become proportional after a certain amount of domain restriction.

Context: You're walking along berry-picking with your friend and you see a bushy area up ahead. You don't see any saskatoons, but you suspect some might be there.

The *i?* DP in (98a) does not denote a plural individual selected from a contextually unrestricted set. In other words, the interlocutors are actively engaged in berry picking, and the set of berries under discussion is equivalent to just that set of plural individuals which the interlocutors believe to be in their immediate area, including the bushy area up ahead. Since the *i?* DP denotes a plural individual in a highly restricted set, the individual is implied to be maximal.

In (97a), the assignment of the choice function is determined by the demonstrative *ikli?*, and a non-maximal individual is selected from an unrestricted context, with a resulting existential interpretation for the entire sentence. In (98a), the same demonstrative simply reinforces the location of a contextually restricted maximal plural individual. Essentially, the choice function scopes under the demonstrative for (97a), but over the demonstrative in (98a).

Note that when a sentence cannot have an existential interpretation, as in (99) where a definite set of saskatoons is under discussion, the pattern is reversed, and an *i?* DP must be used.⁷⁶

(99) a. kn nstils iklí? i? síya?
 1SG.ABS think DEM DET saskatoon
 I think the saskatoons might be there.

b. #kn nstils iklí? kł-síya?
 1SG.ABS think DEM HAVE-saskatoon
 #I think there might be some saskatoons there.

Context: In answer to the question "Where are the saskatoons I picked?"

The determiner *i?* is felicitous in a definite context (99), and in an existential context where the speaker is in their house and talking about whether or not there are saskatoons up on a particular mountain (97), but not in an existential context where the speaker is *on* that mountain, actively looking for saskatoons (98). The difference in the availability of *i?* in more general existential contexts, but not more specific ones, is due to a stronger maximality implicature in more specific contexts, resulting from the greater restriction on the domain, and correspondingly, a stronger assertion and a higher level of speaker commitment. For (97), there is no particular set of saskatoons under discussion, and so the *i?* DP denotes a non-specific, possibly very large, plural individual belonging to a contextually unrestricted set. The DP in (98) denotes a much smaller maximal plural individual.⁷⁷

⁷⁶The choice function also scopes over the demonstrative in (99a), since the individual has already been established in the discourse.

⁷⁷It remains an open and interesting question of exactly how much domain restriction is necessary for a sentence containing an *i?* DP to lose its existential interpretation.

Properties inherent to existential *kʰ-* help to give rise, via scalar implicature, to the stronger maximality implicatures seen with *iʔ* in these contexts. Because a *kʰ-* nominal is unambiguously non-specific, non-maximal, and existential,⁷⁸ in contexts involving a greater degree of domain restriction, a speaker's use of *iʔ* implicates a maximal reading of the nominal. Because of the high degree of contextual domain restriction, an existential indefinite or non-specific reading of the *iʔ* DP is not available, only a maximal reading. Further supporting data are shown below in (100-101):

(100) a. #mat ilíʔ iʔ səx^wlkám.
 EPIS DEM DET policeman
 #The policeman might be there.

b. mat ilíʔ ʔak(ʔ)-səx^wlkám.
 EPIS DEM HAVE-policeman
 There might be a policeman there.

Context: I've never been to Kamloops, and I'm wondering if they have policemen there.

(101) a. #cmay aláʔ iʔ qáqx^wəlx.
 EPIS DEM DET fish
 #The fish might be here.

b. cmay aláʔ kʰ-qáqx^wəlx.
 EPIS DEM HAVE-fish
 There might be fish here.

Context: We are fishing in a boat and think that this maybe a good spot, and that there might be some fish here.

(100a) and (101a) are felicitous as non-existential sentences, with meanings approximating "A policeman might be there" and "A fish might be there". The *iʔ* DPs appear to scope over modals in (100-101) because of the implicature of uniqueness/maximality associated with *iʔ* and the scalar opposition of *iʔ* and *kʰ-* in existential environments.

This implicature of uniqueness also predicts that it will be infelicitous to use an Okanagan *iʔ* DP if it is explicit from the context that the set is empty. Consider the following exchange. In (102), speaker A establishes a referent for a particular chief, and then speaker B asserts that they do not have a chief, thereby negating the existence of any referent for the contextually restricted DP *iʔ ylmíx^wəm*.⁷⁹

⁷⁸*kʰ-* prefixed nominals are predicate-NPs, and denote a set of individuals.

⁷⁹Note that (102) is similar to the examples like (22) in section 3.1 showing that *iʔ* DPs may have e-type readings. The difference for (22) is that, although the domain may only include individuals in future or counterfactual worlds, the domain is nevertheless non-empty in these cases. See also cases involving *iʔ* DPs scoping under if-clauses. *pro*, on the other hand, may reference an empty set (102),

(102) A:kn nixəl̄ ʃast ʔaʔ c-s-q^wəlq^wílt iʔ ylmíx^wəm.
 1SG.ABS hear good COMP CUST-speak DET chief
 I heard that the (your) chief is a good speaker.

B:lut k^wu tə kʔ-ylmíx^wəm, uʔ sxʔkinx mi ʃast
 NEG 1PL.ABS EMPH HAVE-chief CONJ how FUT good
 ʔaʔ c-s-q^wəlq^wílt (#iʔ ylmíx^wəm).
 COMP CUST-NOM-speak (DET chief)
 We don't have a chief, so how can the chief be a good speaker?

By using an *iʔ* DP, speaker B is referring to the same chief that speaker A mistakenly assumes to exist. The implicature of uniqueness results in infelicity in this case, because the set is empty, and the choice function is undefined.

In sum, while many contexts which favor the use of existential sentences typically allow either the *iʔ* DP form or the *kʔ*-prefixed nominal form, there is a scalar implicature associated with using *iʔ* which strongly implies maximality in contexts involving a greater degree of domain restriction. A similar scalar relation exists between *iʔ* and *t*. It seems clear that *iʔ* implies uniqueness and maximality of a referent, and this is made evident by comparing the distributions of *iʔ* and *kʔ*- in existential contexts, and *iʔ* and *t* in other contexts.

Ultimately then, whether or not an *iʔ* DP is interpreted referentially depends entirely on the amount of contextual domain restriction.

3.5.5 DP-associated quantifiers

The data up to this point are actually consistent with an analysis of both *iʔ* and *t* as semantically vacuous agreement or case markers. Since the distribution of *iʔ* and *t* is syntactically predictable (cf section 2), it is plausible that the semantics of referentiality, and domain restriction, are instead built directly into the transitivity and/or aspectual systems. I now show that this hypothesis is less tenable, since strong quantifiers in Okanagan also seem to exhibit selectional restrictions. The quantifier data indicate that *iʔ* is not a semantically vacuous agreement-marker, but plays an active role in the semantic composition of Okanagan sentences.

Okanagan quantifiers may associate with DPs, as in many other Salish languages (see Gardiner (1993) for Shuswap, and Matthewson (2001) and Davis (2010) for St'át'imcets). (103) shows the universal quantifier *yaʔyáʔt* 'all' as a syntactic constituent with a DP argument of an intransitive predicate.⁸⁰

(103) [yaʔyáʔt [iʔ s-qəl-qəltmíx^w DP] DP] ac-q^wacqn.
 all DET IRED-man CUST-hat
 All the men have a hat on.

which follows if there is no maximality or uniqueness implicature associated with *pro*.

⁸⁰I do not offer arguments for syntactic constituency in this paper, but refer the reader to Lyon (in prep).

Okanagan quantifiers never occur in D position.⁸¹ A determiner must always intervene between the quantifier and the following nominal if it is to be construed as a core argument.⁸² This holds for both strong quantifiers, e.g. *yaʕyáʕt* “all” (104a), and weak quantifiers, e.g. *x^wʕit* “many” (104b).

- (104) a. *ʕiʕ-selx* *yaʕyáʕt* *(iʕ) *spiʕəm*.
 eat-(DIR)-3PL.ERG all *(DET) bitterroot
 They ate all the bitterroots.
- b. *ʕiʕ-s* John *iʕ* *x^wʕit* *(iʕ) *spiʕəm*.
 eat-(DIR)-3SG.ERG John DET many *(DET) bitterroots
 John ate many of the bitterroots.

Determiners may never introduce a universally quantified DP in an argument position (105a,b).^{83,84}

- (105) a. *ʕáç̣-x̣-səlx* *(iʕ) *yaʕyáʕt* *iʕ* *sk^wk^wúsənt*.
 watch-(DIR)-3PL.ERG *(DET) all DET stars
 They watched all the stars.
- b. *c-x^wuy-səlx* *(iʕ) *yaʕyáʕt* *iʕ* *scəcmáloʕ*.
 CUST-go-(CAUS)-3PL.ERG *(DET) all DET children
 They took all the kids.

By contrast, weakly quantified DPs in a post-predicative position require an introductory determiner (106), while weakly quantified DPs in a pre-predicative position may not have an introductory determiner (107).⁸⁵ This holds regardless of whether the pre-predicative DP is a subject or object.

- (106) a. *ʕíáp-nt-ín* *(iʕ) *x^wʕit* *iʕ* *sʕaʕcínəm*.
 shoot-DIR-1SG.ERG DET many DET deer
 I shot many deer.

⁸¹As in *St’át’imcets* (Matthewson, 1998), *Sḵwxú7mesh* (Gillon, 2006), and many other Salish languages.

⁸²As a temporal quantifier, *yaʕyáʕt* can modify adverbs without an intervening determiner, as in for example (49b).

⁸³Quantified DPs marked as adjuncts by locative Ks do permit introductory determiners (i). I do not currently have an explanation for this, but speculate that the locative K is licensing the determiner in this environment:

- (i) Susan *ʕmink-s* *k-ac-mrím-s* (iʕ) *kl* *yaʕyáʕt* *iʕ* *kl*
 Susan want-(DIR)-3SG-ERG k-CUST-marry-(DIR)-3SG.ERG DET LOC all DET LOC
s-qəl-qəłtmix^w.
 IRED-man
 Susan wants to get married to all of the men.

⁸⁴*St’át’imcets*, by contrast, allows determiners in this position (Matthewson, 1998, 247). Davis (2010) takes this as evidence that neither universal quantifiers nor determiners in *St’át’imcets* create generalized quantifiers.

⁸⁵Strong quantifiers cannot function as syntactic predicates (i), weak quantifiers may (ii):

b. wík-n *(i?) x^w?it i? s-qəl-qəłtmíx^w.
 see-(DIR)-1SG.ERG DET many DET IRED-man
 I saw many men.

(107) a. *(i?) x^w?it i? s-qəl-qəłtmíx^w i? wík-n.
 (*DET) many DET IRED-man DET see-(DIR)-1SG.ERG
 I saw many men there.

b. *(i?) x^w?it i? yl-ylmíx^wəm i? q^wa?q^w?ál.
 (*DET) many DET IRED-chief DET speak
 There's lots of chiefs that spoke.

These data are important for at least two reasons. First, they show that a DP-associated quantifier must be in a position no lower than the specifier of DP. But demonstratives also form constituents with DPs, and usually, but not always, occur on the inside of a DP-associated quantifier. As (108-109) shows, either ordering is acceptable:

(108) a. wík-n yaŋyaŋt ixí? i? sənktəca?sqáxa?.
 see-(DIR)-1SG.ERG all DEM DET horse
 I saw all of those horses.

b. wík-n ixí? yaŋyaŋt i? sənktəca?sqáxa?.
 see-(DIR)-1SG.ERG DEM all DET horse
 I saw all of those horses.

(109) a. wík-nt-m yaŋyaŋt ixí? i? sqilx^w ac-ǰǰǰǰǰ-əm
 see-DIR-1PL.ERG all DEM DET people CUST-IRED-climb-MID
 i? kl məq^wməq^wíwt.
 DET LOC IRED-mountain
 We watched all of those people travel over the mountain.

(i) a. *k^wu yaŋyaŋt.
 1PL.ABS all
 This is all of us.

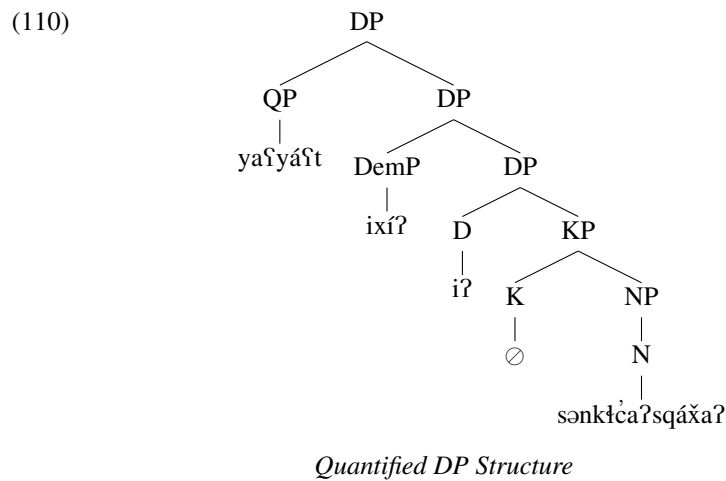
b. yaŋyaŋt i? qáqx^wəlx.
 all DET fish
 All the fish (DP reading only) *There are all the fish.//

(ii) a. k^wu x^w?it.
 1PL.ABS many
 We are many.

b. x^w?it i? sqilx^w
 many DET people
 There are a lot of Indian People.

b. wík-nt-m ixíʔ yaʕyáʕt iʔ sqilx^w ac-ǰǰǰǰ-ə-m
 see-DIR-1PL.ERG DEM all DET people CUST-IREN-climb-MID
 iʔ kl məq^wmq^wíwt.
 DET LOC IRED-mountain
 We watched all of those people travel over the mountain.

Because of the variability in ordering between DP-associated demonstratives and quantifiers, it is reasonable to assume that demonstratives and quantifiers form constituents with a DP by adjunction. I assume the following structure for Okanagan:⁸⁶



Second, the data constitute evidence that *iʔ* does not create a generalized quantifier (Barwise and Cooper, 1981), since under this analysis the quantifier *yaʕyáʕt* would have to achieve its characteristic maximality effect while preserving the semantic type of its argument.⁸⁷

Crucial to my argument that *iʔ* is not simply a semantically vacuous agreement or case marker, consider that the universal quantifier cannot introduce an oblique object of an intransitive predicate.⁸⁸ Compare intransitive (111a) and (111b) on the one hand, with transitive (112).

⁸⁶Matthewson (1998, 245) also assumes that quantifiers adjoin to DP in St'át'imcets, but analyzes DP-associated demonstratives as occurring in the specifier position of DP, because DP-associated quantifiers in St'át'imcets consistently precede DP-associated demonstratives.

⁸⁷Cumulative readings of quantified DPs in St'át'imcets, and the absence of distributive readings in the same contexts, suggests that a GQ analysis of quantified DPs may also be incorrect (Davis, 2010). In this case, however, *iʔ* must also be type-preserving. I leave this issue unresolved for the moment.

⁸⁸Perhaps because maximality and partitivity are incompatible. cf also Matthewson (2001, 150-151), who shows that St'át'imcets quantifiers must take DPs as arguments.

- (111) a. kn ʔiʔn (*yaʔyaʔt) t qáqx^wəlx.
 1SG.ABS eat (*all) OBL fish
 I ate all the fish.
- b. kn ʔiʔn (*t yaʔyaʔt) t qáqx^wəlx.
 1SG.ABS eat (*OBL all) OBL fish
 I ate all the fish.
- (112) ʔiʔ-n (yaʔyaʔt) iʔ qáqx^wəlx.
 eat-(DIR)-1SG.ERG (all) DET fish
 I ate (all) the fish.

The above data contrast with data involving weak quantifiers, which may introduce either *iʔ* DP objects (106), or oblique objects (113).

- (113) a. John ʔiʔən *(t) x^wʔit *(t) spɪʔəm.
 John eat *(OBL) many *(OBL) bitterroot
 He ate many of the bitterroots.
- b. kn wík-əm *(t) x^wʔit *(t) sqəlqəltmíx^w.
 1SG.ABS see-MID *(OBL) many *(OBL) IRED-man
 I saw many men.

Similarly to cases involving attributive modification of an oblique object, when a weak quantifier associates with an oblique object, the oblique marker must occur before *both* the quantifier *and* the noun.⁸⁹

The ban against strong quantifiers adjoining to oblique KPs applies not only to oblique objects of morphologically intransitive predicates, but also to themes of predicates inflected with the transitive applicative suffix *-xt-*, which are also predictably introduced by the oblique marker (114) (Mattina, 1993b, 280).⁹⁰

- (114) a. x^wíc'-xt-m-n t (ym-)yámx^waʔ.
 give-APPL-2SG.OBJ-1SG.ERG OBL (IRED)-basket
 I gave you a basket(s).
- b. *x^wíc'-xt-m-n t yaʔyaʔt t (ym-)yámx^waʔ.
 give-APPL-2SG.OBJ-1SG.ERG OBL all OBL (IRED)-basket
 I gave you all the basket(s).

A universally quantified applicative theme may only be realized by a predicate inflected with the ditransitive applicative *-ʔt-*.⁹¹ Themes of ditransitive applica-

⁸⁹Note also that adjectives and weak quantifiers together pattern differently from strong quantifiers in being able to function as syntactic predicates.

⁹⁰My use of the terms *transitive applicative* and *ditransitive applicative* comes from Barthaier (2002).

⁹¹a.k.a. *possessional applicative* (Mattina, 2001).

tives are predictably introduced by the determiner *iʔ* (115).⁹²

- (115) a. x^wíç-ʔt-m-n iʔ yámx^waʔ.
 give-DITR-2SG.OBJ-1SG.ERG DET basket
 I gave you a basket.
- b. x^wíç-ʔt-m-n yaʔyaʔt iʔ ym-yámx^waʔ.
 give-DITR-2SG.OBJ-1SG.ERG all DET IRED-basket
 I gave you all the baskets.

The split between strong and weak quantifiers in Okanagan in terms of their ability to associate with *iʔ* DPs and *t* KPs, is evidence that the determiner *iʔ* is not semantically vacuous. The determiner is a necessary step for deriving a strongly quantified DP, since it provides the necessary domain for the strong quantifier, a domain which neither a *t* KP nor a bare nominal can provide. DP-adjoined strong quantifiers in Okanagan require arguments of type *e*, but *t* KPs and bare NPs both denote sets.

Under the current domain restriction analysis, *iʔ* DPs denote individuals, not generalized quantifiers. Supporting evidence for this analysis comes from the fact that, unlike English quantifiers such as “all” and “half”, Okanagan quantifiers do not occur in D position. I now discuss further evidence against a generalized-quantifier creating analysis of Okanagan *iʔ*: restrictions on distributive readings.

3.5.6 *iʔ* does not permit distributive readings

Matthewson (1999) argues against a generalized quantifier analysis of non-quantified DPs in St’át’incets. Davis (2010) extends this claim to include St’át’incets quantified DPs, as well. A cornerstone of their argument that St’át’incets DPs do not denote generalized quantifiers comes from data showing that these DPs are scopally inert. In other words, in sentences containing distributive operators, St’át’incets non-quantified assertion-of-existence DPs will always take widest scope (Matthewson, 1999), and sentences containing two quantified DPs will exhibit only cumulative readings (Davis, 2010).

Okanagan *iʔ* DPs allow less-than-widest scope readings, as shown by their ability to scope under negation and modals. They nevertheless seem to disallow distributive readings, similar to St’át’incets.⁹³ (116a, 117a) show that lexically singular DPs including the nouns *sk^wk^w íyməlt* “child” and *tkámilx^w* “woman” cannot be interpreted as scoping under the quantified subject:

⁹²Barthmaier (2002, 4-5) states that “consistently in texts we find *-xt-* predicates selected when a speaker chooses to focus on the recipient... predicates with *-ʔt-* allow speakers to include the patient [i.e. theme] in the core, in addition to the recipient, to signify its worthiness of attention...” I suggest that “worthiness of attention” may be implicitly understood as domain restriction.

⁹³I have not yet systematically checked data involving sentences two quantified DPs.

(116) a. *yáŷyáŷt iʔ smaʔmʔím ʕúmqs-əs iʔ skʷkʷíyməlt.*
 all DET women kiss-(DIR)-3SG.ERG DET child
 All the women kiss the child (must be the same child).

b. *yáŷyáŷt iʔ smaʔmʔím ʕm-ʕúmqs-əs iʔ*
 all DET women IRED-kiss-(DIR)-3SG.ERG DET
scəcmáləʔ.
 children
 All the women kiss the children (can be different children).

(117) a. *yáŷyáŷt iʔ s-qəl-qəlmíxʷ ʕmínk-nt-əm iʔ t tkłmilxʷ.*
 all DET IRED-man like-DIR-PASS DET OBL woman
 Target: Every man has a woman who loves him.

SM: Same woman loves all the men.

LL: All the men was loved by this one woman.

b. *yáŷyáŷt iʔ s-qəl-qəltmíxʷ ʕmínk-nt-əm iʔ t smaʔmʔím.*
 all DET IRED-man like-DIR-PASS DET OBL women
 Target: Every man has a woman who loves him.

LL: That's a bunch of women.

In contexts where more than one child or woman is under discussion, the suppletive plural forms *scəcmáləʔ* “children” (116b) and *smaʔmʔím* “women” (117b) must be used, but these plural objects do not have clear distributive readings, but are rather consistent with cumulative interpretations (i.e. *All the women kiss the children* and *All the men are loved by the women.*).^{94,95,96}

Forcing a (non-lexically) singular nominal DP to occur under the scope of a distributive operator may sometimes result in that DP denoting instantiations of a kind, or a contextually unrestricted non-maximal plurality. In (118b) below,

⁹⁴cf Davis (2010) for discussion of cumulativity in St'át'imcets DPs.

⁹⁵By comparing (i) to (116), we see that a plural predicate is not sufficient to give a distributive reading to a lexically singular DP.

(i) **yáŷyáŷt iʔ smaʔmʔím ʕm-ʕúmqs-əs iʔ skʷkʷíyməlt.*
 all DET women FRED-kiss-(DIR)-3SG.ERG DET child
 All the women kiss a child (different children.)

Sentences involving number-neutral DPs, such as (ii), are ambiguous between a reading where there is for example one rabbit and a reading where there are multiple rabbits. There is no distributivity under the singular reading, and the plural reading is consistent with a cumulative interpretation.

(ii) *yáŷyáŷt iʔ smaʔmʔím ʕúmqs-əs iʔ spəplínaʔ.*
 all DET women kiss-(DIR)-3SG.ERG DET rabbit
 All the women kissed a (single) rabbit/some rabbits.

⁹⁶Sentences involving numeral quantifiers pattern similarly to the examples above:

(iii) *#kaʔʔís (iʔ) i-sc-marím iʔ kl sqəltmíxʷ.*
 three (DET) 1SG.POSS-PERF-marry DET LOC man
 I married a (certain) man three times.
 Consultant: It's the same man, I married the man three times.

the consultant makes it clear that the DP *iʔ sámaʔ* “the white person” refers to members of the race of white people, not to an individual white person. The plural predicate requires an *iʔ* DP object that denotes a plural individual, and one way which a (non-lexically) singular DP can satisfy this requirement is if it denotes a contextually unrestricted non-maximal plurality.⁹⁷

- (118) a. *yaʕyaʕt iʔ sqilx^w ʕəx^wnt-ísəlx iʔ*
 all DET indian.people kill.pl-DIR-3PL.ERG DET
sm-sámaʔ.
 IRED-white.person

Every Indian killed a white person. (target)
 Volunteered: All the Indians killed the white people.

- b. *yaʕyaʕt iʔ sqilx^w ʕəx^wnt-ísəlx iʔ sámaʔ.*
 all DET indian.people kill.pl-DIR-3PL.ERG DET white.person
 Every Indian killed a white person. (target)
 Volunteered: You’re not just talking about an individual, you’re talking about a race.

The absence of distributive readings for *iʔ* DPs in object position may be taken as evidence that Okanagan DPs are not generalized quantifiers. The data in (116-117) also cannot be explained by arguing that lexically singular nominals like *tkʔmilx^w* “woman” have uniqueness entailments, since these nouns allow non-specific readings, as shown by (36) in section 3.2.2. Additionally, lexically singular nouns allow distributive-like readings when they are nominal predicates prefixed by *kʔ-* “have”, as in contexts of ownership (119):

- (119) a. *yaʕyaʕt iʔ sqəlqəltmíx^w kʔ-tkʔmilx^w.*
 all DET men HAVE-woman
 Every man has a woman. (target)

- b. *yaʕyaʕt iʔ scəcmáləʔ kʔ-kəkwap.*
 all DET children HAVE-dog
 Every child owns a dog. (target)

Because the possessed nominals are predicates in these cases, these sentences do not exemplify distributivity over an object. (119a), for example, means that each atomic individual in the denotation of the quantified DP *yaʕyaʕt iʔ sqəlqəltmíx^w* “all the men” has the property of having a woman, but this is slightly different than asserting that there is a different woman for each man. Since the possessed nominal predicate *kʔ-tkʔmilx^w* “have a woman” does not entail that every atomic member of its plural argument possess the *same* woman, the absence of distributivity in (116-117) cannot be attributed to the noun itself. It must be the deter-

⁹⁷My prediction is that lexically singular nouns cannot occur with this interpretation, since they do not have plural individuals in their extensions.

miner that is blocking the distributive readings.

When a speaker wishes to convey something approximating a distributive reading, a morphologically intransitive predicate with an oblique marked object may also be used (120a, 121a, 122a), since this will predictably yield a non-specific reading of the nominal. Using an *iʔ* DP object in this context does not favor a non-specific reading (120b, 121b, 122b) because of the maximality implicature associated with *iʔ*.

- (120) a. tkʔsasíləm iʔ smaʔmʔím c-ʔíq-əm t sípiʔ.
 two DET women CUST-scrape-MID OBL hide
 Both of the women are scraping a hide (can be different hide).
- b. tkʔsasíləm iʔ smaʔmʔím ʔíq-s iʔ sípiʔ.
 two DET women scrape-(DIR)-3SG.ERG DET hide
 Both of the women are scraping (the same) hide.
- (121) a. yaʔyaʔt iʔ səxʷpíxəm tʔap-ám t sʔaʔcínəm.
 all DET hunter shoot-MID OBL deer
 Every Indian killed a deer. (target)
 Volunteered: Each one of them shot a deer.
- b. *yaʔyaʔt iʔ səxʷpíxəm tʔap-nt-ísəlx iʔ sʔaʔcínəm.
 all DET hunter shoot-DIR-3PL.ERG DET deer
 Every hunter shot a deer. (target)
 All the hunters shot the (same) deer. (actual)
- (122) a. yaʔyaʔt iʔ s-qəl-qəltmíxʷ n-ʔíys-əm-əlx t qʷacqn.
 all DET IRED-man like-(DIR)-3SG.ERG DET hat
 Every man bought a hat. (target)
- b. #yaʔyaʔt iʔ s-qəl-qəltmíxʷ n-ʔíys-əlx iʔ qʷacqn.
 all DET IRED-man buy-(DIR)-3SG.ERG DET hat
 Every man bought a hat. (target)
 All the men bought the (same) hat. (actual)

Under an analysis where *t* KPs are semantically incorporated, these examples do not actually show object-distributivity, since the quantified subjects are actually ranging over events of hide-scraping (120), deer killing (121), and hat buying (122).⁹⁸

3.6 Summary

I have presented a range of data in this section showing that the Okanagan determiner *iʔ* is not deictic, and neither presupposes nor asserts the unique-

⁹⁸cf similar data involving incorporated objects in Turkish (Aygen-Tosun, 1999).

ness or maximality of its referent. I have also shown that Okanagan *iʔ* cannot be analyzed as an English-style indefinite, since it easily allows co-referential readings, nor a St'át'imcets style widest-scope indefinite, since it may take narrow scope with respect to negation and other operators.

I have claimed that Okanagan *iʔ* is best analyzed as a contextually sensitive domain restrictor, and based my claim primarily on data showing that *iʔ* implies uniqueness and maximality of a referent, but that this implicature, like all pragmatic implicatures, is cancellable. This means that vacuous applications of domain restriction can, and do arise. The pragmatic force of *iʔ* is achieved through scalar implicature, i.e. through the opposition of the determiner *iʔ* and the prefix *(ʔa)kʔ-* “have” in existential sentences, and elsewhere through the opposition of *iʔ* and the oblique marker *t*. Evidence that Okanagan *iʔ* selects one singular or plural individual from a contextually salient domain, rather than creates a generalized quantifier, comes from the syntactic distribution of *iʔ* versus other DP-adjoined quantifiers, and the absence of distributive readings for lexically singular DPs.

The oblique marker is semantically vacuous, but in K position it indicates semantic incorporation of a nominal. This analysis is consistent with the interpretation of these nominals as non-specific, non-salient, non-referential, and non-identifiable (Carlson, 2006).

4 Analysis

4.1 Analysis of the determiner *iʔ*

The semantic analysis I assume for the Okanagan determiner *iʔ* is technically the same as that argued for by Gillon (2006) for Skwxú7mesh (123) deictic determiners:⁹⁹

$$(123) \quad \llbracket iʔ \rrbracket = \lambda P[f(\lambda x[P(x) \wedge C(x)])]$$

A variable over choice functions, *f*, selects one singular or plural individual from the intersection of the context *C* and the nominal property *P*. Existential closure of the choice function variable may occur at any level. Under this analysis, Okanagan *iʔ* creates an expression of type *e*. A semantic derivation of the oblique, agentive DP *iʔ t sqəłtmix*^w “the man” is shown in the figure 3:

⁹⁹Gillon’s (2006) choice-function analysis has a similar predecessor in Matthewson’s (1999, 2001) analysis of St’át’imcets. For Matthewson (2001), there is no existential closure. Instead, the choice function variable is bound by the context, which derives the widest scope effects.

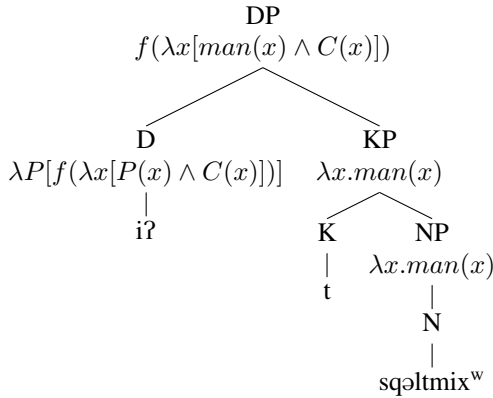


Figure 3. Semantic Composition of an Okanagan DP

There are two important factors which give rise to the range of readings seen with Okanagan *i?* DPs. These are:

- (i) The level at which existential closure of the choice function variable occurs.
- (ii) The amount of intersection between P and C and whether a maximal or non-maximal individual is selected from this intersection.

There is a correlation between (i) and (ii), such that existential closure at the highest level corresponds to a high amount of domain restriction ($P \cap C < 1$) and a maximal interpretation. Existential closure at a local level *usually* corresponds to an absence of domain restriction ($P \cap C = 1$, or $P \subseteq C$) and a non-specific reading, but not always, since non-specific readings of *i?* DPs are also available in restricted contexts (e.g. 36). Maximal interpretations are available under both highest-level (e.g. *i?* DPs in definite contexts) and local-level (e.g. generic interpretations of *i?* DPs) existential closures. I discuss points (i) and (ii) each in turn.

4.1.1 Existential closure of the choice function

Recall that for examples involving negation, such as (46a), repeated here as (124), an *i?* DP may have either a specific or non-specific reading, depending on the level at which the free choice function variable is existentially bound and closed. The specific reading is represented in (125a), and the non-specific reading in (125b).

- (124) lut tə wík-n i? ćwanáytmx.
 NEG EMPH see-(DIR)-1SG.ERG DET sasquatch
 I've never seen a/the sasquatch.

- (125) a. $\lambda w \exists f. CH(f) \wedge \neg \text{the speaker has seen}$
 $f(\lambda x[sasquatch(x)(w) \wedge C(x)])$
- b. $\lambda w \neg \exists f. CH(f) \wedge \text{the speaker has seen}$
 $f(\lambda x[sasquatch(x)(w) \wedge C(x)])$

For (125a), the choice function is closed at the highest level, which is consistent with a specific or definite interpretation of the DP. For (125b), the choice function is closed locally, and the DP will have a non-specific interpretation.¹⁰⁰

For examples involving modals and if-clauses, an *i?* DP's choice function may also be closed either locally, or at the highest level. Consider (60b) again, repeated below as (126). The choice function associated with the DP *i? sq^wsi?s* "his son" must be locally closed, since the DP denotes an individual in just those counterfactual worlds in which Spike has a son. (127) is a rough semantic representation of (126).

- (126) cak^w Spike ʔa? k(ʔ)-sq^wsi?, cmay ixí? i? sq^wsi?-s
 DEON Spike COMP HAVE-son EPIS DEM DET son-3SG.POSS
 i? kʔ-ylmíx^wəm.
 DET FUT-chief
 If Spike had a son, I guess his son would be the chief.

- (127) $\lambda w [[\exists w'. R(w, w') \wedge \exists x. \text{Spike's son}(x)(w')]] \longrightarrow \exists f. CH(f) \wedge$
 $f(\lambda x[\text{Spike's son}(x)(w') \wedge C(x)]) \wedge x \text{ is the chief in } w'$

Consider another example of a non-specific, narrow scope reading of an *i?* DP. (50) is repeated here as (128), and is interesting since there are two DPs in this example, both are associated with choice functions, and both must be closed at a less-than-highest level.

- (128) cmay i? ylmíx^wəm la?kín i? tkʔmílx^w.
 EPIS DET chief when DET woman
 Maybe the chief will someday be a woman.
- (129) $\lambda w \forall w'. R(w, w') [[\exists f. CH(f) \wedge f(\lambda x[\text{chief}(x)(w') \wedge C(x)])] \longrightarrow$
 $\exists w''. R(w', w'') \wedge \exists g. CH(g) \wedge g(\lambda y[\text{woman}(y)(w'') \wedge C(y)]) \wedge$
 $y(w'') = x(w'')]$

The DP *i? ylmíx^wəm* refers to whichever individual satisfies the description "chief" at any given time, in any given world.¹⁰¹ For all worlds *w'* which are accessible to the actual world, if there is a certain chief in that world, then there

¹⁰⁰There is no true scope interaction between the DP and negation in this example. True DP scope interactions require a DP to undergo quantifier-raising (Heim, 1982), which is itself dependent on that DP being a generalized quantifier. Okanagan *i?* DPs are not generalized quantifiers.

¹⁰¹I abstract away from the time variables in (129), and simplify the modal semantics to just a relation between worlds.

is a world w'' accessible to w' in which there is a certain woman, and the woman and the chief('s counterpart) are identical in w'' .¹⁰²

Sentences containing modals may also contain DPs whose choice functions have been closed at the highest-level. Consider (101), repeated here as (130), under its felicitous reading.

- (130) *cmay alá? i? qáqx^wəlx.*
 EPIS DEM DET fish
 The fish might be here.

- (131) $\lambda w \exists f. CH(f) \wedge f(\lambda x [fish(x)(w) \wedge C(x)]) \wedge \exists w'. R(w, w') \wedge x$ is here in w' .

In a context where we are in a boat, actively looking for fish, and are wondering whether there might be any fish in our current location, localized existential closure of the DPs choice function will result in infelicity, because of the restricted context and a stronger maximality implicature.

Since the choice function associated with the determiner in Okanagan is interpretable relative to different world assignments, the nominal domain must include individuals across multiple worlds. The contextually salient set of individuals can be restricted by quantifying over worlds using modals or conditionals, for example, and the choice function selects individuals from within these worlds.

4.1.2 Set intersection and maximality

The amount of contextual domain restriction, and the size of the individual selected by the choice function, is just as important as the level at which existential closure of the choice function occurs. This was informally discussed during my presentation of the data in section 3, but I review it here, for the sake of clarity, in a more explicit fashion. The following diagrams represent discourse states: *C* stands for the set of contextually salient individuals, and *P* stands for a nominal property. It is important to note that contextual domain restriction of a nominal property may come about either through the use of an *i?* determiner, or it may be already present as an implicit or explicit fact about the context.

In definite contexts, where a discourse referent has already been established, the intersection of *P* and *C* includes only one singular or plural individual. The choice function associated with the determiner must select that maximal individual, as represented in the following diagram:

¹⁰²Note that the DP *i? tkámilx^w* ‘‘a woman’’ is not interpreted as a nominal predicate, which the English translation would otherwise suggest, but as an individual. See section 6 for further discussion of copular cases like this.

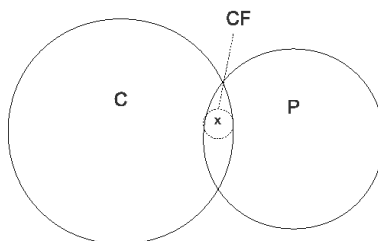


Figure 4. *Domain Restriction in Definite Contexts* (cf sections 3.3, 3.5.4)

For restricted contexts involving multiple possible referents, if the determiner does not select the entire set as a maximal plural individual, as in the previous diagram, then it must select one individual from the context set:¹⁰³

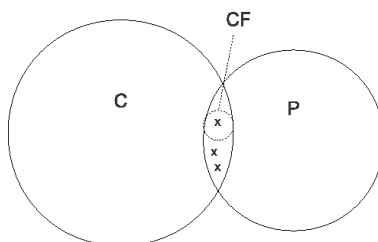


Figure 5. *Domain Restriction in Non-Unique Contexts* (cf section 3.2.2)

In some indefinite contexts, such as at the beginning of a text, there is no contextual restriction: the intersection of P and C is total.¹⁰⁴ Since there is no contextual restriction, the choice function may potentially select *any* individual in the domain of P.

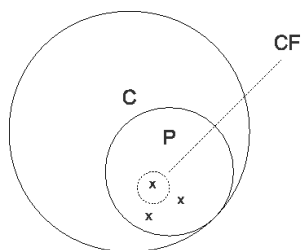


Figure 6. *Domain Restriction in Indefinite and Existential Contexts* (cf sections 3.2 and 3.5.2)

¹⁰³For specific interpretations this is presumably achieved either by a speaker pointing, or using some other demonstrative gesture, to a particular referent in context. In non-specific contexts, the choice is left up to the hearer.

¹⁰⁴In other words, as part of the interlocutors shared beliefs about individuals which inhabit the actual and possible worlds, all individuals belong to C until they are removed by a non-vacuous application of domain restriction.

Just as with out-of-the-blue indefinite uses of *i?* in implicitly restricted contexts (Figure 5), the referent of a DP in a contextually unrestricted indefinite context (Figure 6) may be either specific or non-specific. Uses of *i?* in existential sentences are essentially the same as other out-of-the-blue indefinite uses, but with the added stipulation that they must be *non*-specific. We have seen in section 3.5.2 that an existential sentence containing an *i?* DP will lose its existential interpretation under non-vacuous domain restriction. Because the intersection of P and C is smaller, the DP will be interpreted as maximal via implicature. In terms of the diagrams above, we see that Figures 5 and 6 are equivalent except that there is no domain restriction in Figure 6. Figure 6 is a pre-requisite discourse state for interpreting an *i?* DP as denoting a non-specific “instantiation of a kind”.¹⁰⁵

Generic interpretations differ from other indefinite uses of *i?* only in the sense that the maximal plural individual must be chosen from a contextually unrestricted domain:

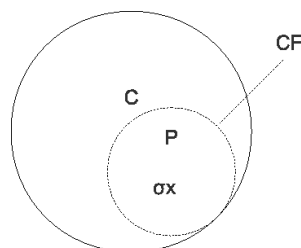


Figure 7. *Generic interpretations of Okanagan DPs*
(cf sections 3.5.3)

We have seen that generic interpretations of sentences containing Okanagan DPs also have episodic or existential interpretations, and so their interpretations are dependent on the context. Any less-than-total intersection between P and C will result in the loss of the generic reading, since the DP can then at best only denote a maximal subset of P (cf Figure 4).

Data like (132) below indicate that it is possible within a discourse to move directly from a normal out-of-the-blue indefinite, atomic-individual-denoting reading of a DP, to an unrestricted maximal-plural reading of that same DP:

¹⁰⁵Theoretically, a speaker can incorrectly presuppose that the context already involves a certain amount of domain restriction, and thus intend a definite or specific indefinite reading of an *i?* DP (Figures 4-5), while the hearer interprets the *i?* DP as a non-restricted existential, i.e. a non-specific instantiation of a kind (Figure 6). The inverse case is also theoretically possible: A speaker can incorrectly presuppose an unrestricted context set, and thus intend a non-restricted existential (or generic) reading of an *i?* DP, while the hearer interprets the *i?* DP as a specific indefinite. By using *kʔ* “have” rather than *i?* in these contexts, the speaker effectively removes Figure 5 as a possible discourse state.

- (132) wík-n iʔ skəmxist t spíʔscíft, uc
 see-(DIR)-1SG.ERG DET bear OBL yesterday YNQ
 ac-my-st-íx^w ac-ʔit-t-s iʔ
 CUST-know-CAUS-2SG.ERG CUST-eat-CAUS-3SG.ERG DET
 skəmxíst iʔ síyaʔ?
 bear DET saskatoons
 I saw a bear yesterday, and did you know that bears eat berries?

The input context to (132) is represented by figure 6, since the DP *iʔ skəmxist* is uttered in a contextually unrestricted indefinite context, and denotes an atomic individual. The default output context to (132) is represented by figure 4, since a discourse referent for *iʔ skəmxist* is now established. The second mention of the DP does not refer to the unique individual in the context, however, since the speaker intends to refer to a contextually unrestricted maximal plural individual. The entire set P is thus re-introduced into the context and the maximal plural individual is selected by the choice function, as in figure 7. This simply helps to confirm that domain restriction can be pragmatically overruled.¹⁰⁶

I conclude that the wide range of readings associated with *iʔ* DPs may be reduced to two factors: (i) the level at which existential closure of a choice function occurs; and (ii) the amount of set intersection between the context and the nominal property and whether a maximal or non-maximal individual is selected by the choice function.

4.2 Analysis of the oblique marker *t*

The oblique marker *t* is not a domain restrictor. Following Gillon (2009), I assume that domain restriction is associated with the D position (Gillon, 2009), rather than K. Note that the oblique marker in Figure 3 is semantically vacuous, and thus preserves the predicative type of the NP. In the absence of a co-occurring determiner, I have claimed that the oblique marker in K position indicates that the oblique-marked nominal is undergoing semantic incorporation as an object of a formally intransitive predicate (i.e. those predicates with intransitive suffixes *-əm* or *-(míx)aʔx*), or as a theme of a transitive applicative (i.e. predicates which have been transitivized by *-x(i)t-*).

The semantics of incorporation can be written directly into the denotation of the (in)transitivizer. For example, the intransitivizer suffix *-əm* may be represented as follows:

$$(133) \quad \llbracket [-əm] \rrbracket = \lambda P \lambda Q \lambda x \exists y [P(y)(x) \wedge Q(y)]$$

¹⁰⁶(132) is actually a variation of the conceptually simpler, non-co-referential reading exhibited by the DPs in (54). It is not reasonable for the speaker to expect the hearer to know that the particular bear he saw yesterday likes to eat berries, the hearer knows this, and thus interprets the second DP as non-co-referential with the first.

For (133), the intransitivizer *-əm* takes an unaccusative root *P* as its first argument,¹⁰⁷ and an oblique KP *Q* as its second argument, and then asserts that there is some individual *y* that satisfies the property *Q*, and that this individual *y* corresponds to the thematic object of the predicate *P*. The property *Q* is thus a restrictive modifier of the predicate *P* (Chung and Ladusaw, 2004). The identity of the individual *y* is crucially not dependent on the context, and for cases where a quantified subject DP is ranging over events, as for example (120b) in section 3.5.6, the result will be a distributive reading for the oblique nominal. A semantic derivation of the sentence *kn k^wúləm t pwmín* “I made a drum” is shown as figure 8.¹⁰⁸

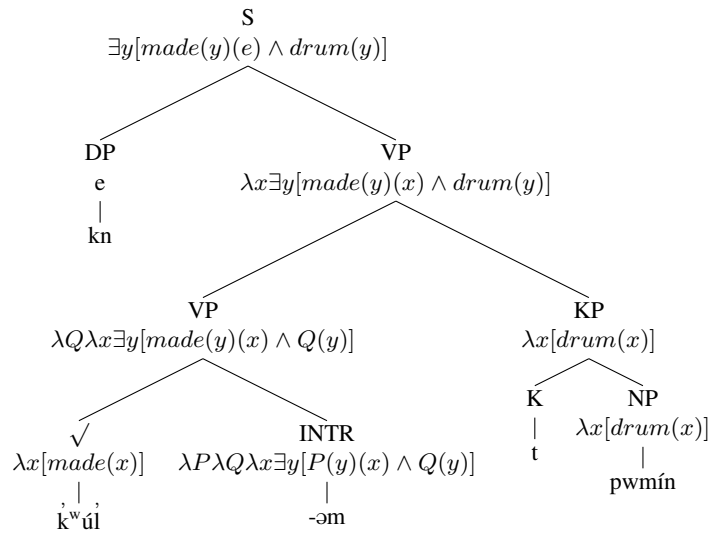


Figure 8. *Semantic Incorporation of Oblique Objects*

This incorporation analysis may be extended to cases involving themes of transitive applicative *-xt-* (cf 114), as well.

There is no direct link between noun incorporation and case marker *t*. When it co-occurs with *i?*, as when marking and instrument or a passive agent, the resulting DP denotes an individual, and will saturate the predicate as an *e*-type argument. Since *t* is nevertheless obligatory in oblique environments, it can also be viewed as a necessary component for an NP to undergo incorporation. In a sense, it prepares the NP for incorporation.

For cases where *t* functions as a marker of attributive modification rather than a case marker (cf 9), it simply indicates that predicate modification is occurring (Heim and Kratzer, 1998; Koch, 2006).¹⁰⁹

¹⁰⁷See Davis and Matthewson (2009) for arguments that all Salish verb roots are unaccusative.

¹⁰⁸The oblique KP in figure 8 is in adjunct position. My compositional analysis predicts that if an oblique object is not overt, as with certain middle predicates that denote activities, the *Q* variable will be saturated by the context set *C*.

¹⁰⁹Evidence for right-adjunction of *t* comes data involving stacked modifiers, see Lyon (in prep).

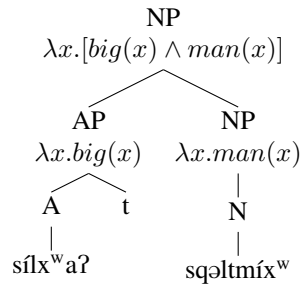


Figure 9. Complex Nominal Predicate

5 Conclusions

In this paper, I have investigated the semantic distribution of the determiner *iʔ* and the oblique marker *t* in Okanagan, and conclude that *iʔ* is best analyzed as a non-deictic contextually-sensitive domain restrictor. Because an *iʔ* DP can have widest scope interpretations in some contexts, the Okanagan data poses a challenge for Gillon (2009), who claims that deictic features force the widest scope readings characteristic of deictic DPs in other Salish languages.

Okanagan *iʔ* shares many similarities with deictic determiners in Skwxú7-mesh (Gillon, 2006) and assertion-of-existence determiners (Matthewson, 1998) in St’át’imcets, but allows for a wider range of readings, including narrow scope readings usually associated with non-deictic and non-assertion-of-existence determiners. The determiner *iʔ* does not presuppose or assert uniqueness or maximality, specificity, and is not an English-style or St’át’imcets-style indefinite. This survey has shown that *iʔ* is contextually sensitive, and that unlike the oblique marker *t*, which I have claimed is semantically vacuous, it permits co-referential readings. Furthermore, *iʔ* implies uniqueness/maximality of a referent. This effect is partially achieved directly by domain restriction, but also via the scalar opposition between *iʔ* and the prefix *kʔ-* “have” in existential contexts, and between *iʔ* and the oblique marker *t* elsewhere. Both *kʔ-* and *t* are insensitive to the context, and are always non-specific.

Gillon (2009) claims that domain restriction might apply vacuously in some cases, and Okanagan *iʔ* provides evidence that this is correct, since *iʔ* is compatible with unrestricted existential and generic interpretations. This does not weaken the theory, since the semantics of *iʔ* allow vacuous domain restriction as a distinct possibility. On the contrary, the availability of both vacuous and non-vacuous domain restriction is correlated with two facts: (i) the semantic features of uniqueness and maximality associated with *iʔ* are only implied, not entailed; and (ii) there is no other contrastive determiner in Okanagan, and the availability of vacuous domain restriction essentially takes the place of an overt contrast in the system. In other words, vacuous domain restriction fills the space left by the absence of a contrastive, non-referential determiner.

Despite a predictable syntactic distribution, the exclusive co-occurrence of Okanagan *iʔ* with the strong quantifier *yaʔyáʔi* “all”, and its sensitivity to

context, suggests that it is semantically active, rather than simply an agreement or case marker.

My analysis of *t* as semantically vacuous, but as an overt indicator of various covert operations involving two predicative-type constituents, builds on arguments made by Koch (2006). This approach allows a somewhat abstract, unified analysis of *t* across categories and uses.

6 Appendix: further questions

There remain many unanswered questions, but I will briefly touch on just two of the most important ones:

6.1 Predicative readings of *i?* DPs

Copular sentences in Okanagan present a problem for my analysis of *i?* DPs. Consider the examples in (134):¹¹⁰

(134) a. Nancy *i?* səx^wmaʔmáyaʔm.
 Nancy DET teacher
 Nancy is the/a teacher.

b. ixíʔ *i?* ylmíx^wum uʔ *i?* lʔiw.
 DEM DET chief CONJ DET father
 He is a chief and a father.

Under most accounts, proper names (134a) and demonstratives (134b) denote entities. Assuming that it is always the case that *i?* DPs denote entities as well, we are faced with a problem in compositionality. If both the proper name, and the *i?* DP denote entities, then we are forced to admit the existence of a null copula in Okanagan. The null copula might simply link two type *e* arguments, as in the following denotation:

(135) $\lambda x \lambda y [x = y]$

Since we have seen that an *i?* DP does not require a maximal interpretation, then a proper noun entity like *Nancy* in (134a) may be equated to one, out of possibly many, entities which belong to the set səx^wmaʔmáyaʔm “teacher”, hence the availability of both definite and indefinite English translations for (134a).¹¹¹

What (135) does not derive is the reading of (134a) where being a teacher is one of possibly many properties which Nancy has. Likewise with (134b), the copula in (135) does not derive the reading where the referent of the demonstra-

¹¹⁰See Mattina (2001, 226) for further data and discussion on copular constructions.

¹¹¹The identity of the individual selected by the determiner’s choice function in (134a) is not important, as long as it just so happens that the individual selected is equivalent to Nancy. The identity relation is enforced by the copula, and the sentence could be false in one of two ways: (i) if an individual non-identical to Nancy were selected by the determiner’s choice function; and (ii) if Nancy were not a member of the set səx^wmaʔmáyaʔm “teacher”.

tive has the properties of being a chief and a father, which is the most salient reading of this sentence. In order to derive these predicative readings, it is possible to write a Pred type-shift (Partee, 1987) directly into the semantics of the copula, as in (136):

$$(136) \quad \lambda x \lambda y [\cup x(y)]$$

This version of the copula transforms one of the entity-denoting arguments, presumably the *i?* DP, into a property type.¹¹²

6.2 Restrictions on bound-variable readings

Recall from section 3.1 that *i?* DPs permit e-type readings. I suggested that this is possible because, unlike St'át'imcets assertion-of-existence determiners (Matthewson, 2008), *i?* is not deictic, and so there is nothing to prevent a DP from being bound or varying across situations. Despite allowing e-type readings, bound-variable readings of *i?* DPs are absent in syntactic contexts resembling English donkey sentences. A bound variable reading of an *i?* DP in these contexts is only licensed if there is overt possessor morphology on the noun.¹¹³

- (137) a. *i?* tkámílx^w ?akł-automobil ny'íip c-x^wk^w-st-ís
 DET woman HAVE-automobile always CUST-clean-CAUS-3SG.ERG
i? automobile*(-s).
 DET automobile*(-3SG.POSS)
 A woman with a car always cleans her car/the car.

- b. yaŷyáŷt *i?* sqəłtmíx^w ac-k?ám̄tiw̄s ny'íip
 all DET man CUST-ride always
 ks-píca?-s *i?* kəwáp-s /
 FUT-beat-(DIR)-3SG.ERG DET horse-3SG.POSS /
 **i?* snk̄tca?qáǰa?
 *DET horse

Every man who rides a horse beats his horse/the horse.

The generalization seems to be that an individual denoted by an *i?* DP may vary across worlds and times, but that *given* a world or time, an *i?* DP may only denote a singular or plural individual. Following a line of argumentation

¹¹²Partee (1987, 363) states that “Nom and Pred are more “substantive” in that they depend on the inclusion of properties or property-correlates among the entities”.

¹¹³*pro* allows a bound variable readings:

- (i) *i?* tkámílx^w ?akł-automobil ny'íip ac-x^wk^w-st-ís *pro*.
 DET woman HAVE-automobile always CUST-clean-CAUS-3SG.ERG *pro*
 A woman with a car always cleans it.

See also Matthewson (1999, 114-119) for data in St'át'imcets showing that possessor morphology is necessary for bound variable readings of assertion-of-existence DPs.

similar to that put forth by Matthewson (2008) for St'át'imcets assertion-of-existence determiners, I claim that unlike in St'át'imcets, the *absence* of deictic presuppositions for Okanagan *i?* allows the situation argument of *i?* to be bound across worlds and times. For example, in modal contexts an *i?* DP may denote a non-specific individual from within a context set which is relativized to some non-actual world or set of worlds, and for propositions under the scope of a temporal adverbial, an *i?* DP may denote a non-specific individual from within a context set relativized to particular intervals or points of time.¹¹⁴

I speculate that if there are no temporal or modal operators present to bind the situation argument of the determiner, the situation argument will be closed, and an *i?* DP may then only denote one singular or plural individual in the world at which the main clause is evaluated. It is possible that quantified DPs can only distribute over events, and not entities, and that this property somehow stems from the fact that they are not generalized quantifiers. This may explain why distributive readings of *t* KPs in object position are possible, since these are incorporated objects of eventive predicates, and why distributivity over entities is blocked, since their reference is not dependent on an event variable. Even if distributivity over events is the crucial factor here, it still remains to be seen why possessive morphology within an *i?* DP licenses the bound-variable reading. It is possible that possessive pronouns link the situation argument of a determiner to an event, thereby making distributive and bound variable readings possible for just these cases. It may be necessary to revise the semantics of *i?* in order to more accurately reflect its sensitivity to variable binding, but I leave this for future work.

Pronominal paradigms: adapted from Mattina (1993a)

INTRANSITIVE PARADIGMS

	ABSOLUTE	POSSESSIVE
1SG	kn	in-
2SG	k ^w	an-
3SG	∅	-s
1PL	k ^w u	-tt
2PL	p	-mp
3PL	-lx	-s-lx

¹¹⁴For example, (22), which exemplified an e-type reading of an *i?* DP might be understood as asserting that in all those worlds where Norman actually kills a deer, he wants someone to skin the deer that he kills *in that world*. Similarly, the bridging case in (23) asserts that for every time *t* that I visit some non-specific reserve *y*, I talk to the individual who is the chief of *y* at *t*. We have also seen more general cases of non-specific readings of *i?* DPs, as when they take narrow scope with respect to a temporal operator. For example, (49a) asserts that for every afternoon *t*, there is a letter *x*, such that *x* arrives at *t*.

TRANSITIVE PARADIGMS

	GENITIVE OBJECT/ POSSESSOR SUBJECT	ERGATIVE SUBJECT/ ABSOLUTIVE OR SUFFIXAL OBJECT
1 SG	k ^w u / in-	-(i)n / k ^w u
2 SG	k ^w / an-	-(i)x ^w / -s,-m
3 SG	∅ / -s	-(i)s / -∅
1 PL	k ^w u +	-(i)m,-t / k ^w u ... m
2 PL	p / -mp	-(i)p / -t(ul)m
3 PL	∅ / -s-lx	-(i)s-lx / -lx

Abbreviations

ABS	absolutive	GEN	genitive object
APPL	transitive applicative	IMPF	imperfective
CAUS	causative transitivizer	INDEP	independent pronoun
CISL	cislocative	INSTR	instrumental
COMP	complementizer	INTR	intransitivizer
CONJ	conjunction	IREP	initial reduplication
CUST	customary/habitual	LOC	locative
DEM	demonstrative	MID	middle marker
DEON	deontic modal	NEG	negative
DET	determiner	NOM	nominalizer
DIR	directive transitivizer	OBJ	object marker
DITR	ditransitive applicative	OBL	oblique marker
EMPH	emphatic	PASS	passive
EPIS	epistemic modal	PERF	perfective
ERG	ergative case	PL	plural
EXIS	assertion-of-existence	POSS	possessive
EVID	evidential	SG	singular
FRED	final reduplication	U.POSS	unrealized possessor
FOC	focus marker	YNQ	yes/no question
FUT	future		

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