

**Predication and Equation in Okanagan Salish:**

**The Syntax and Semantics of Determiner Phrases**

by

John Lyon

B.A. German, Auburn University, 2000

B.Sc. International Business, Auburn University, 2000

M.A. Linguistics, University of Montana, 2005

A THESIS SUBMITTED IN PARTIAL FULFILLMENT  
OF THE REQUIREMENTS FOR THE DEGREE OF

**Doctor of Philosophy**

in

THE FACULTY OF GRADUATE AND POSTDOCTORAL  
STUDIES

(Linguistics)

The University Of British Columbia

(Vancouver)

December 2013

© John Lyon, 2013

# Abstract

This dissertation investigates the syntax and semantics of equative structures (i.e. DP-DP structures and clefts) in the little studied and highly endangered Upper Nicola dialect of Okanagan Salish (a.k.a. Nsyílxcən), and represents the first detailed investigation of equatives in a Salish language. From the theoretical perspective, Okanagan is noteworthy since there is no evidence for a predication copula (contra Baker (2003), Adger and Ramchand (2003)) while there is evidence for a null equative copula (Heycock and Kroch, 1999), thereby supporting theories which argue for a structural distinction between predication and equation.

Okanagan does not have an overt copula (A. Mattina 2001), yet does have sentences consisting only of two determiner phrases (DPs) (“DP-DP structures”). These exhibit a word order restriction which is absent from predications involving other syntactic categories, such that in answer to a WH-question, a directly referential demonstrative or proper name must precede a DP headed by the determiner *i?* (an “*i?* DP”). The implication is that specificational sentences (Higgins, 1973) are not possible in Okanagan. Given that *i?* DPs permit intensional readings, and that *i?* DPs never denote sets (Longobardi, 1994; Matthewson, 1998), I claim that the Okanagan equative head maps the intension of an individual to its extension, and is of type  $\langle\langle s, e \rangle, \langle e, t \rangle\rangle$  (Romero, 2005; Comorovski, 2007). Since there are no specificational sentences in Okanagan, and the equivalent of Higgins’ identificational sentence class (e.g. *That is John* in English) pattern with copula-less, direct predications in Okanagan, the data support reducing Higgins’ taxonomy to only two types for Okanagan: predication and equative (Heller, 2005).

I claim that Okanagan clefts are also equative structures, based on evidence that clefts consist of two DPs and carry an implicature of exhaustivity (Davis et al.,

2004). This implicature stems from the maximality implicature carried by the determiner *i?* which introduces the second DP (i.e. the residue). My analysis runs parallel to theories of English clefts which align cleft semantics to the semantics of determiners (Percus, 1997; Hedberg, 2000).

# Preface

This dissertation consists of original and independent work by the author, John Lyon, and is based on fieldwork with fluent speakers of the Upper Nicola dialect of Okanagan Salish. This fieldwork is covered by UBC Ethics Certificate number H08-01182 under the title “The Representation of Focus in Languages of the Pacific Northwest”, a grant from the Social Sciences and Humanities Research Council of Canada.

A version of Chapter 5 of this dissertation, *Semantics of Okanagan Determiner Phrases*, has been accepted for publication by the International Journal of American Linguistics, under the title *Okanagan Determiner Phrases and Domain Restriction*. It appeared earlier as a working paper under the title *The semantics of determiner phrases in Okanagan* in the Proceedings for the 46th Annual International Conference on Salish and Neighbouring Languages (ICSNL), University of British Columbia Working Papers in Linguistics volume 30, pages 194–266.

Significant portions of chapter 6 of this dissertation, *The Syntax of Nominal Modification*, appeared as a working paper as *Nominal modification in Upper Nicola Okanagan: A working paper* in the Proceedings for the 45th Annual International Conference on Salish and Neighbouring Languages (ICSNL), University of British Columbia Working Papers in Linguistics volume 27, pages 199–233.

The map given as Figure 1.2, entitled *Geographic Distribution of Salish Languages*, is reproduced from *The Salish Language Family: Reconstructing Syntax* by Paul D. Kroeber (p. xxxi) by kind permission of the University of Nebraska Press, copyright 1999 by the University of Nebraska Press.

# Table of Contents

|   |              |
|---|--------------|
| <b>Abstract . . . . .</b>   | <b>ii</b>    |
| <b>Preface . . . . .</b>  | <b>iv</b>    |
| <b>Table of Contents . . . . .</b>                                    | <b>v</b>     |
| <b>List of Tables . . . . .</b>                                       | <b>xii</b>   |
| <b>List of Figures . . . . .</b>                                      | <b>xiv</b>   |
| <b>Abbreviations . . . . .</b>  | <b>xvi</b>   |
| <b>Acknowledgements . . . . .</b>                                     | <b>xviii</b> |
| <b>1 Introduction . . . . .</b>                                       | <b>1</b>     |
| 1.1 Purpose of this Study . . . . .                                   | 1            |
| 1.2 The Okanagan Language . . . . .                                   | 7            |
| 1.3 Ethics . . . . .  | 10           |
| 1.4 The Data . . . . .  | 11           |
| 1.4.1 Methodology . . . . .   | 11           |
| 1.4.2 Interlinear Glossing and Orthographic Conventions . . . . .     | 12           |
| 1.5 Salish Literature Review . . . . .                                | 15           |
| 1.5.1 Okanagan . . . . .  | 15           |
| 1.5.2 Southern Interior Salish . . . . .                              | 16           |
| 1.5.3 Northern Interior Salish (and other Salish languages) . . . . . | 16           |
| 1.6 Outline of the Dissertation . . . . .                             | 17           |

|          |   |           |
|----------|---|-----------|
| <b>2</b> | <b>Predication and Equation: Theoretical Background . . . . .</b> | <b>20</b> |
| 2.1      | Predication and Equation . . . . .                                | 21        |
| 2.1.1    | Defining Predication: Semantic Issues . . . . .                   | 21        |
| 2.1.2    | Copular Clauses and Higgins' (1973) Taxonomy . . . . .            | 25        |
| 2.2      | Specificational Copular Syntax/Semantics:                         |           |
|          | Predicate Raising or an Equative Head? . . . . .                  | 34        |
| 2.2.1    | Small Clauses . . . . .   | 35        |
| 2.2.2    | Predicate Raising . . . . .                                       | 37        |
| 2.2.3    | Specificationals as Equatives . . . . .                           | 39        |
| 2.2.4    | Directly Referential versus Non-Rigid DPs:                        |           |
|          | An Intensional Asymmetry . . . . .                                | 43        |
| 2.2.5    | Summary . . . . .   | 45        |
| 2.3      | Focus and Information Structure . . . . .                         | 45        |
| 2.3.1    | Focus Alternatives and F-marking . . . . .                        | 46        |
| 2.3.2    | Prosodic Alignment and Focused Constituents . . . . .             | 48        |
| 2.4      | Clefts . . . . .  | 50        |
| 2.4.1    | 'Extraposition from Subject' Analyses of Clefts . . . . .         | 51        |
| 2.4.2    | Cleft Semantics: Exhaustivity Entailments and Existence           |           |
|          | Presuppositions . . . . .   | 52        |
| 2.4.3    | Summary . . . . .   | 54        |
| 2.5      | Chapter Summary . . . . .   | 55        |
| <b>3</b> | <b>Background in Okanagan Grammar . . . . .</b>                   | <b>56</b> |
| 3.1      | Phonology . . . . .   | 56        |
| 3.2      | Inflection: Pronominal, Valency, and Tense-Aspect . . . . .       | 58        |
| 3.3      | Clausal Word Order . . . . .                                      | 64        |
| <b>4</b> | <b>The Structure and Distribution of NP and DP . . . . .</b>      | <b>73</b> |
| 4.1      | Introduction . . . . .  | 73        |
| 4.2      | Distinguishing Nouns as a Syntactic Category . . . . .            | 74        |
| 4.3      | NP versus DP . . . . .  | 79        |
| 4.4      | The Distribution of the Determiner and Oblique Marker . . . . .   | 82        |
| 4.4.1    | Subject Arguments . . . . .                                       | 83        |

|          |   |            |
|----------|---|------------|
| 4.4.2    | Core Objects vs. Quasi-Objects . . . . .  | 84         |
| 4.4.3    | The Syntactic Status of <i>iʔ</i> and <i>t</i> . . . . .  | 88         |
| 4.4.4    | Arguments of Lexical Intransitives . . . . .  | 90         |
| 4.4.5    | Ditransitives . . . . .   | 92         |
| 4.4.6    | Possessor Intransitives . . . . .   | 94         |
| 4.4.7    | The Oblique Marker in Other Environments . . . . .  | 95         |
| 4.4.8    | This ‘Predictability’ does not hold across Salish . . . . .                                     | 96         |
| 4.4.9    | Summary . . . . .   | 97         |
| 4.5      | Internal Structure of DP<br>(and other Nominal Projections) . . . . .                           | 98         |
| 4.5.1    | <i>iʔ</i> Occurs in D Position . . . . .  | 99         |
| 4.5.2    | Three Hypotheses . . . . .  | 99         |
| 4.5.3    | Analysis . . . . .  | 104        |
| 4.6      | Other DPs: Demonstratives and Proper Names . . . . .  | 106        |
| 4.6.1    | Demonstrative DPs . . . . .   | 106        |
| 4.6.2    | Proper Name DPs . . . . .   | 115        |
| 4.7      | Summary . . . . .   | 121        |
| <b>5</b> | <b>Semantics of Okanagan Determiner Phrases . . . . .</b>                                       | <b>122</b> |
| 5.1      | Introduction . . . . .  | 123        |
| 5.2      | The Semantics of the Determiner <i>iʔ</i> and Oblique Marker <i>t</i> . . . . .                 | 125        |
| 5.2.1    | <i>iʔ</i> and <i>t</i> are not Deictic . . . . .  | 126        |
| 5.2.2    | <i>iʔ</i> and <i>t</i> are Not Definite . . . . .   | 128        |
| 5.2.3    | <i>iʔ</i> and <i>t</i> are not English-like Existential Indefinites . . . . .                   | 137        |
| 5.2.4    | <i>iʔ</i> is Different than a Lillooet Widest-scope Indefinite . . . . .                        | 140        |
| 5.2.5    | <i>iʔ</i> Carries an Implicature of Uniqueness and Maximality ( <i>t</i><br>does not) . . . . . | 142        |
| 5.2.6    | <i>iʔ</i> does not Create a Generalized Quantifier . . . . .                                    | 147        |
| 5.2.7    | Existential Sentences and <i>iʔ</i> DPs . . . . .   | 149        |
| 5.2.8    | Generic Readings of <i>iʔ</i> DPs . . . . .   | 151        |
| 5.2.9    | Intensionality and <i>iʔ</i> DPs . . . . .  | 153        |
| 5.2.10   | Summary . . . . .   | 155        |
| 5.3      | Analysis . . . . .  | 156        |

|          |   |            |
|----------|---|------------|
| 5.3.1    | Okanagan <i>i?</i>  | 156        |
| 5.3.2    | Okanagan <i>t</i>   | 161        |
| 5.3.3    | Explaining the Implicature Carried by <i>i?</i>   | 164        |
| 5.4      | Summary   | 166        |
| <b>6</b> | <b>The Syntax of Nominal Modification</b>   | <b>168</b> |
| 6.1      | Preliminaries   | 169        |
| 6.1.1    | Morphological Patterns of Nominal Modification  | 169        |
| 6.1.2    | Distinguishing Clausal Subordination from Nominal Modification                                | 171        |
| 6.2      | Attributive Modification  | 175        |
| 6.2.1    | Review: Complex Nominal Predicates and Complex DPs  | 176        |
| 6.2.2    | Aspectual Restrictions on Attributive Modification  | 179        |
| 6.2.3    | Syntax of Attributive Modification  | 185        |
| 6.2.4    | Summary of Attributive Modification   | 187        |
| 6.3      | Relative Clauses  | 187        |
| 6.3.1    | Introducing Relative Clauses  | 188        |
| 6.3.2    | Other Characteristics of Okanagan Relatives   | 196        |
| 6.3.3    | Relative Clause Formation by Movement   | 200        |
| 6.3.4    | Problems with Extending the Movement Account  | 210        |
| 6.4      | Summary   | 211        |
| 6.5      | Chapter Addendum: Notes on the ‘Matching Effect’  | 212        |
| <b>7</b> | <b>Direct Predications and DP-DP Structures: Syntax, Semantics, and Information Structure</b> | <b>215</b> |
| 7.1      | Introduction  | 215        |
| 7.1.1    | Main Claims of this Chapter   | 216        |
| 7.1.2    | Chapter Outline   | 217        |
| 7.2      | Direct Predication  | 219        |
| 7.2.1    | Direct Predications and Word Order  | 220        |
| 7.2.2    | Direct Predications and the Ban on Predicate Raising  | 226        |
| 7.2.3    | (Near) Obligatory Subject-Raising over T  | 229        |
| 7.2.4    | A Structural Analysis of Direct Predication   | 232        |



|          |   |            |
|----------|---|------------|
| 7.2.5    | Summary of Direct Predications . . . . .                                    | 236        |
| 7.3      | DP-DP Structures . . . . .  | 236        |
| 7.3.1    | DP-DP Structures and the Word Order Restriction . . . . .                   | 237        |
| 7.3.2    | No ‘Predicate’ Raising in Okanagan DP-DP Structures . . . . .               | 240        |
| 7.3.3    | Connectivity (and Other) Effects and Okanagan DP-DP Structures . . . . .    | 242        |
| 7.3.4    | An Equative Head . . . . .  | 247        |
| 7.4      | Information Structure and DP-DP structures . . . . .                        | 249        |
| 7.4.1    | The Exhaustivity Implicature in DP-DP structures . . . . .                  | 250        |
| 7.4.2    | DP-DP Predications are Non-presuppositional . . . . .                       | 256        |
| 7.4.3    | An F-marked Constituent Must Occur Initially in a DP-DP structure . . . . . | 257        |
| 7.4.4    | Summary . . . . .   | 261        |
| 7.5      | Analysis of the Equative Head . . . . .                                     | 262        |
| 7.5.1    | A Semantic Asymmetry . . . . .  | 262        |
| 7.5.2    | Focus Alignment . . . . .   | 266        |
| 7.5.3    | Final Analysis . . . . .  | 268        |
| 7.6      | Other Predication Types Involving Demonstratives and Proper Names . . . . . | 270        |
| 7.6.1    | The Case for Identificational Sentences . . . . .                           | 271        |
| 7.6.2    | Predications Involving Two Proper Names . . . . .                           | 276        |
| 7.6.3    | Summary . . . . .   | 280        |
| 7.7      | Problem Inversions . . . . .  | 280        |
| 7.8      | Summary and Implications . . . . .  | 286        |
| 7.8.1    | Summary of Major Points . . . . .   | 286        |
| 7.8.2    | Implications . . . . .  | 287        |
| <b>8</b> | <b>Okanagan Clefts as Equatives . . . . .</b>                               | <b>291</b> |
| 8.1      | Introduction . . . . .  | 292        |
| 8.1.1    | Terminological Preliminaries . . . . .                                      | 292        |
| 8.1.2    | The Main Claim . . . . .  | 293        |
| 8.1.3    | Chapter Outline . . . . .   | 293        |
| 8.2      | Introducing Introduced Clefts in Okanagan and Across Salish . . . . .       | 297        |
| 8.2.1    | The Classical Analysis: A Tripartite Structure . . . . .                    | 297        |

|          |   |            |
|----------|---|------------|
| 8.2.2    | Introduced Clefts in Okanagan . . . . .   | 298        |
| 8.2.3    | DP Types and DP Focus . . . . .   | 299        |
| 8.3      | Information Structure and Clefts . . . . .  | 301        |
| 8.3.1    | Structural Focus . . . . .  | 301        |
| 8.3.2    | The Exhaustivity Implicature in Clefts and Contrastive Focus                                    | 302        |
| 8.3.3    | Clefts are Non-presuppositional . . . . .   | 306        |
| 8.3.4    | Focus Cannot Fall Finally . . . . .   | 308        |
| 8.3.5    | Contrasting Clefts with Nominal Predicate Constructions .                                       | 309        |
| 8.3.6    | Summary . . . . .   | 315        |
| 8.4      | An Equative Analysis of Clefts . . . . .  | 315        |
| 8.4.1    | A Structural and Interpretive Ambiguity . . . . .   | 316        |
| 8.4.2    | Clefts as Equatives: The Basic Idea . . . . .   | 317        |
| 8.5      | Morpho-syntactic Evidence for the Equative Analysis of Clefts and<br>DP-DP Structures . . . . . | 320        |
| 8.5.1    | Clefts and the (Optional) Initial Demonstrative . . . . .                                       | 320        |
| 8.5.2    | Demonstrative Proclisis in Equatives . . . . .  | 323        |
| 8.5.3    | Null Foci . . . . .   | 331        |
| 8.5.4    | Intensionality and Cleft Residues . . . . .   | 334        |
| 8.6      | Analysis . . . . .  | 336        |
| 8.6.1    | Syntactic Derivation . . . . .  | 336        |
| 8.6.2    | Semantic Derivation . . . . .   | 339        |
| 8.7      | Summary . . . . .   | 342        |
| 8.8      | Chapter Addendum A: Future Clefts and the Case for Clausal NPs                                  | 343        |
| 8.9      | Chapter Addendum B: Adjunct Clefts . . . . .  | 346        |
| <b>9</b> | <b>Conclusion . . . . .</b>   | <b>349</b> |
| 9.1      | Summary of Findings . . . . .   | 349        |
| 9.2      | Implications for Okanagan Grammar . . . . .   | 353        |
| 9.2.1    | Empirical Contributions . . . . .   | 353        |
| 9.2.2    | Further Questions . . . . .   | 355        |
| 9.3      | Implications for Salish . . . . .   | 358        |
| 9.3.1    | Implications for Southern Interior Salish . . . . .   | 361        |
| 9.3.2    | Implications for Northern Interior Salish . . . . .   | 376        |

|       |   |            |
|-------|---|------------|
| 9.3.3 | Implications for Other Salish Languages . . . . .                                   | 396        |
| 9.3.4 | Summary of Implications for Salish . . . . .  | 404        |
| 9.4   | Theoretical Implications . . . . .  | 409        |
| 9.4.1 | A Distinction between Predication and Equation . . . . .                            | 410        |
| 9.4.2 | Higgins' Taxonomic Classification for Okanagan . . . . .                            | 411        |
| 9.4.3 | Pragmatic Differences between Okanagan and English Equatives . . . . .              | 415        |
| 9.4.4 | Information Structural Differences between Okanagan and English Equatives . . . . . | 415        |
| 9.4.5 | Exhaustivity in Okanagan Equatives . . . . .  | 416        |
| 9.4.6 | Interpretive Variability in Okanagan versus English Equatives                       | 416        |
| 9.4.7 | Fixed Information Structure and the Connection to Clefts .                          | 417        |
| 9.4.8 | Conclusion . . . . .  | 419        |
|       | <b>Bibliography . . . . .</b>   | <b>420</b> |

# List of Tables

|           |   |     |
|-----------|---|-----|
| Table 2.1 | Referentiality and Higgins' Taxonomy (adapted from Mikkelsen (2011, 1810)) . . . . .  | 27  |
| Table 3.1 | Okanagan Consonant Phonemes . . . . .   | 57  |
| Table 3.2 | Okanagan Vowel Phonemes . . . . .   | 57  |
| Table 3.3 | Intransitive Paradigms . . . . .  | 58  |
| Table 3.4 | Transitive Paradigms . . . . .  | 59  |
| Table 3.5 | Independent Pronouns . . . . .  | 59  |
| Table 3.6 | Summary of Word Orders in Upper Nicola Okanagan . . . . .   | 64  |
| Table 4.1 | Distribution of <i>iʔ</i> and <i>t</i> across Grammatical Categories . . . . .  | 98  |
| Table 4.2 | Demonstratives in Okanagan, A. Mattina (1973) . . . . .   | 106 |
| Table 5.1 | Semantic Properties of <i>iʔ</i> and <i>t</i> . . . . .   | 125 |
| Table 5.2 | Set Intersection and Maximality with Okanagan <i>iʔ</i> . . . . .   | 161 |
| Table 6.1 | NP-introducing Articles versus Clausal Subordinators . . . . .  | 175 |
| Table 6.2 | Distribution of Predicate Types in Attributive Modifications . . . . .  | 185 |
| Table 6.3 | Relativization Strategies in Four Interior Salish Languages . . . . .   | 208 |
| Table 6.4 | Surface Patterns Displayed by Head/Modifier Introductory Particles in Okanagan Sentences Involving Nominal Modification . . . . . | 213 |
| Table 7.1 | Directly versus Non-directly Referential DPs in Equative DP-DP Structures . . . . .   | 263 |

|           |   |     |
|-----------|---|-----|
| Table 7.2 | Reducing Higgins' Taxonomy: Identificational Sentences in Okanagan Compared to Mikkelsen's (2005) Classification of English . . . | 276 |
| Table 7.3 | Higgins' Taxonomy and Okanagan Non-Verbal Predications . .  | 288 |
| Table 8.1 | Clefting Predicates and Demonstratives across Four Interior Salish Languages . . . . .  | 299 |
| Table 9.1 | 'Canonical-Order' Predication in Okanagan and English . . . .   | 350 |
| Table 9.2 | 'Inverse-Order' Predication in Okanagan and English . . . . .   | 350 |
| Table 9.3 | DP-DP Structures as Evidence for Equation across Salish: Arranged by Constituency Type from Strongest to Weakest Evidence         | 360 |
| Table 9.4 | Evidence for Equative versus Predicational Analyses of Southern Interior Salish DP-DP Structures and Clefts . . . . .             | 376 |
| Table 9.5 | Evidence for Equative versus Predicational Analyses of Northern Interior Salish DP-DP Structures and Clefts . . . . .             | 396 |
| Table 9.6 | Evidence for Equative versus Predicational Analyses of DP-DP Structures and Clefts across Select Salish Languages . . . . .       | 405 |
| Table 9.7 | Higgins' Taxonomy and Okanagan Non-Verbal Predications . .  | 412 |
| Table 9.8 | Distribution of Semantic Types across DPs in Okanagan Non-Verbal Predications . . . . .   | 413 |

# List of Figures

|            |   |     |
|------------|---|-----|
| Figure 1.1 | Function Application in an Okanagan Direct Predication . . .                            | 4   |
| Figure 1.2 | Geographic Distribution of Salish Languages . . . . .                                   | 8   |
| Figure 1.3 | Okanagan Dialect Areas (from Doak (1983, 17)) . . . . .                                 | 9   |
| Figure 2.1 | The Copula ‘be’ and a Null Pred-head . . . . .  | 23  |
| Figure 2.2 | DP Subject Raising and the Asymmetrical (Pred) Account . .                              | 38  |
| Figure 2.3 | DP Predicate Raising and the Asymmetrical (Pred) Account .                              | 38  |
| Figure 2.4 | DP Subject Raising and the Symmetrical (bare) Account . . .                             | 39  |
| Figure 2.5 | DP Predicate Raising and the Symmetrical (bare) Account . .                             | 39  |
| Figure 4.1 | Okanagan <i>i?</i> DP . . . . .   | 100 |
| Figure 4.2 | The KP hypothesis . . . . .   | 100 |
| Figure 4.3 | The PP Hypothesis and Prosodic Inversion: ‘towards the chief’                           | 101 |
| Figure 4.4 | The Headless Relative Hypothesis . . . . .  | 102 |
| Figure 4.5 | Core argument . . . . .   | 104 |
| Figure 4.6 | Locative adjunct with D . . . . .   | 104 |
| Figure 4.7 | Locative adjunct w/o D . . . . .  | 104 |
| Figure 4.8 | Passive agent or instrumental adjunct . . . . .   | 105 |
| Figure 4.9 | Quasi-object . . . . .  | 105 |
| Figure 5.1 | Semantic Composition of an Okanagan <i>i?</i> DP, Example I . . .                       | 157 |
| Figure 5.2 | Domain Restriction in Definite Contexts (e.g. 36a) . . . . .                            | 158 |
| Figure 5.3 | Domain Restriction in Non-Unique Contexts (e.g. 10) . . . .                             | 159 |
| Figure 5.4 | Domain Restriction in Indefinite and Existential Contexts (e.g.<br>15 and 28) . . . . . | 160 |

|            |  |     |
|------------|--|-----|
| Figure 5.5 | Generic Interpretations of Okanagan DPs (e.g. 47) . . . . .    | 161 |
| Figure 5.6 | Semantic Incorporation of an Oblique Quasi-Object . . . . .    | 163 |
| Figure 6.1 | Complex Nominal Predicate . . . . .                            | 186 |
| Figure 6.2 | Complex Nominal Predicate: Modifier Stacking . . . . .         | 186 |
| Figure 6.3 | Okanagan Locative Relative Clause . . . . .                    | 205 |
| Figure 6.4 | Head-initial (a.k.a. ‘post-nominal’) Relative Clause . . . . . | 206 |
| Figure 6.5 | Head-final (a.k.a. ‘pre-posed’) Relative Clause . . . . .      | 207 |
| Figure 6.6 | Headless Relative Clause . . . . .                             | 209 |
| Figure 7.1 | Freely Ordered Bare Small Clause Hypothesis . . . . .          | 232 |
| Figure 7.2 | Null Pred-head Small Clause Hypothesis . . . . .               | 233 |
| Figure 7.3 | No Predicate Raising . . . . .                                 | 234 |
| Figure 7.4 | Subject Raising . . . . .                                      | 234 |
| Figure 7.5 | Bare Small Clauses As Simple Saturation Relations . . . . .    | 235 |
| Figure 7.6 | An Oversimplified Equative Analysis . . . . .                  | 248 |
| Figure 7.7 | Semantic Asymmetry, more-referential DP is in initial position | 265 |
| Figure 7.8 | Semantic Asymmetry, less-referential DP is in initial position | 266 |
| Figure 7.9 | Final Equative Analysis of Okanagan DP-DP Structures . . .     | 269 |

# Abbreviations

|      |                            |        |                              |
|------|----------------------------|--------|------------------------------|
| ABS  | absolute                   | DIR    | directive transitivizer      |
| ABST | absent                     | DIST   | distal                       |
| ACC  | accusative                 | DITR   | ditransitive applicative     |
| APPL | (possessional) applicative | DUB    | dubitative                   |
| ATTR | attributive                | EMPH   | emphatic                     |
| AUT  | autonomous                 | EPIS   | epistemic modal              |
| AUX  | auxiliary                  | ERG    | ergative case                |
| BEN  | benefactive applicative    | EVID   | evidential                   |
| BOUL | bouletic modal             | EXIS   | assertion-of-existence       |
| CAUS | causative transitivizer    | EXTR   | extraction                   |
| CISL | cislocative                | FEM    | feminine                     |
| CJCT | conjunctive                | FRED   | final reduplication          |
| COMP | complementizer             | FOC    | focus                        |
| CONJ | conjunction                | FUT    | future                       |
| COP  | copula                     | GEN    | genitive                     |
| CUST | customary/habitual         | HAVE   | ‘to have’                    |
| DEIC | deictic                    | IM     | immediate                    |
| DEF  | definite                   | IMPF   | imperfective                 |
| DEM  | demonstrative              | INCEPT | inceptive                    |
| DEON | deontic modal              | INCH   | inchoative                   |
| DET  | determiner                 | INDEP  | independent                  |
| DEV  | developmental              | INSTR  | instrumental                 |
| DIM  | diminutive                 | INTR   | intransitivizer/intransitive |



|      |                                |        |                                 |
|------|--------------------------------|--------|---------------------------------|
| IRED | initial reduplication          | PAST   | past tense adverbial            |
| IRL  | irrealis                       | PERF   | perfective                      |
| LNK  | link                           | PL     | plural                          |
| LOC  | locative                       | POSS   | possessive                      |
| MASC | masculine                      | PRES   | present                         |
| MID  | middle marker                  | PROG   | progressive                     |
| MIN  | <i>-min-</i> pre-transitivizer | PROX   | proximal                        |
| MUT  | mutative                       | QUOT   | quotative                       |
| NEG  | negative                       | RED    | reduplication                   |
| NOM  | nominalizer                    | REFLEX | reflexive                       |
| NST  | non-subject-topic              | REP    | reportative                     |
| OBJ  | object marker                  | SG     | singular                        |
| OBL  | oblique marker                 | TR     | transitivizer                   |
| OCC  | occupation                     | U.POSS | <i>kʔ-</i> unrealized possessor |
| PART | particle                       | YNQ    | yes/no question                 |
| PASS | passive                        |        |                                 |

# Acknowledgements

There are many individuals and organizations which I wish to thank.

First, I wish to thank my Okanagan language teachers in the Upper Nicola Band, in Quilchena and Douglas Lake. My two primary consultants, Lottie Lindley and Sarah McLeod, showed overwhelming patience in their willingness to work with a linguist, and I thank them for being willing to share their language with me. I thank Lottie for her hospitality, and for offering me accomodation on more than one cold winter night. I also wish to thank Hank Charters, Nancy Saddleman, Rita Stewart, Theresa Tom, and Wilford Tom for working with me on several occasions. Without Sharon Lindley inviting me into the community to do language work, none of this would have been possible, and she deserves high praise for her role in organizing the annual Upper Nicola Language and Culture Camps at Glimpse Lake, and for being so very supportive of my work.

Next, I wish to thank my committee chair, Dr. Henry Davis, for directing this dissertation, for sharing his broad and deep knowledge of the Salish language family, for his balanced and well-thought-out Northern Interior Salish perspective which helped to contextualize and temper my own ideas about Okanagan syntax, for being willing to read and critique numerous drafts of this work at its various stages through the years, for driving me to focus on what I knew instead of worrying about what I did not understand, and not least of all for his ongoing financial support.

I also wish to thank Dr. Lisa Matthewson, committee member, who introduced me to Salish field linguistics during 2006-2007 with a year-long field methods course on Lillooet (St'át'imcets). This provided me with useful analytical experience, and a chance to tune my ear to Salish phonology, both of which were crucial

skills for my future work in Okanagan. Lisa's knowledge of the semantics of Lillooet, and particularly semantic theories of determiners, were extremely helpful to me in my own work on Okanagan.

Thanks also go to Dr. Hotze Rullmann, committee member, who introduced me to formal semantics my first semester at UBC, and with that a new way of looking at language. His unwavering interest in First Nations languages, and insistence on clear and concise argumentation, has been extremely helpful to me, particularly in the latter stages of writing this dissertation.

I should also take this opportunity to thank Dr. Anthony Mattina and Dr. Nancy Mattina, for being champions of the Okanagan language, and for doing an enormous amount of linguistic groundwork for Okanagan and the Southern Interior. Without this, and without such tools as the *Colville-Okanagan Dictionary*, my task would have been nearly impossible. As a MA student, Anthony Mattina helped to provide me with a background in Salish linguistics which enabled me to continue my studies at UBC.

I also wish to thank Laura Thevargne and Herman Dan, St'át'imcets teachers and language consultants, for inspiring me to continue doing fieldwork on Okanagan. Thanks to Yvonne Hébert for her previous work, and for allowing me access to her Upper Nicola corpus, and to Sʔímlaʔx<sup>w</sup> (Dr. Michele K. Johnson) for inspiring me to push on through the last few months of the dissertation, and for looking for the light at the end of the tunnel.

Thanks go to the other members of my graduate student cohort, Joel Dunham, Jennifer Glougie, and Mark Scott, with whom I managed to survive the first two years of coursework. Thanks especially to Joel who accompanied me out to the Upper Nicola for the first year or so, and helped to edit the two collections of Okanagan texts which I have published.

Dr. Michael Rochemont deserves thanks for reading and commenting on earlier drafts of my work on predication, and for being willing to meet on a weekly basis to discuss predication and related topics.

An enormous thanks to my friends, family, and loved ones who have been supportive of me through the duration of this program. I have spent far too little time with all of you.

Finally, my research would not have been possible without financial support

through grants from the Jacobs Research Fund in Bellingham WA, the American Philosophical Society in Philadelphia, PA, and through Henry Davis's SSHRC grant #410-2008-2535.

# Chapter 1

## Introduction

In this introductory chapter, I first give a brief overview of the central problems which this dissertation seeks to address (1.1). I then describe the geographic distribution of the Okanagan language and its sister languages of the Southern Interior (1.2). Next, I discuss ethical considerations (1.3). I then discuss my methodology for data collection (1.4.1), and describe how I present my data in terms of inter-linear glossing as well as the orthographic conventions I assume (1.4.2). Next I discuss relevant previous linguistic work on Okanagan and Interior Salish (1.5). This chapter ends with an outline of the dissertation (1.6).

### 1.1 Purpose of this Study

Southern Interior Salish languages such as Okanagan are well-known for their morpho-syntactically rich aspectual systems (N. Mattina 1996b), but little descriptive or theoretical work has focused on the nominal domain. In comparing the syntax and semantics of NPs (noun phrases) and DPs (determiner phrases), this dissertation makes a substantial empirical contribution to the field, and lays the groundwork for further theoretical work in this area.

The major goal of this dissertation is to characterize and analyze the distribution and function of NPs and DPs in sentence types without a main-clause eventive predicate. These sentence types are what I shall refer to as *non-verbal predications*, and are also commonly referred to as *copular clauses* or *copular predications* for

English. I now discuss two types of non-verbal predication for Okanagan: *direct predications* and *DP-DP structures*.

First, consider that in English, main clause non-verbal predications must be accompanied by some inflected form of the verb *be*, since adjectives (e.g. *productive* in 1a) and nominals (e.g. *boss* in 1b) in English cannot be licensed as syntactic predicates in main clause environments without a copula.

- (1) a. John is productive.  
b. Mary is boss.

Although Okanagan has no overt copula (A. Mattina (2001, fns 5,10) and N. Mattina (1996b, 30)), Okanagan non-verbal predications are interpretively similar to copular clauses in English (Higgins, 1973). The examples in (2) exemplify direct predications, and show how APs, NPs, and PPs appear to pattern with simple VPs in being able to select directly for their arguments, which are in these cases DPs headed by the determiner *iʔ*. A comparison between (2) and (3) shows that the relative ordering of predicate and argument is not strict for direct predications.

- (2) a. [ʔayxʷt<sub>AP</sub>] iʔ tkɫmilxʷ.  
tired DET woman  
The woman is tired.
- b. [s-yxʷáp-məx<sub>NP</sub>] iʔ pəptwínaxʷ.  
NOM-shuswap-person DET old woman  
The old woman is Shuswap.
- c. [kl̥ sən-lasyót-[t]ən<sub>PP</sub>] iʔ l̥pot.  
LOC LOC-plate-INSTR DET cup  
The cup is in the cupboard.
- d. [c-xʷuy<sub>VP</sub>] iʔ sxʷ-lk-ám.  
CISL-go DET OCC-bound-MID  
A policeman came.

- (3) a.  $iʔ$   $tkʔmilx^w$  [ $ʔayx^wt_{AP}$ ].  
 DET woman tired  
 The woman is tired.
- b.  $iʔ$   $pəptwínax^w$  [ $s-yx^wáp-məx_{NP}$ ].  
 DET old woman NOM-shuswap-person  
 The old woman is Shuswap.
- c.  $iʔ$   $lpot$  [ $kʔ sən-lasyót-[t]ən_{PP}$ ].  
 DET cup LOC LOC-plate-INSTR  
 The cup is in the cupboard.
- d.  $iʔ$   $sx^w-lk-ám$  [ $c-x^wuy_{VP}$ ].  
 DET OCC-bound-MID CISL-go  
 A policeman came.

These data show that adjectives and nouns have similar distributions to verbs in Okanagan, as in other Salish languages (cf. Kinkade (1983), Jelinek (1998), Davis (1999a), Kroeber (1999) and many others). As such, adjectives and nominals in Okanagan appear to be able to directly predicate themselves of their arguments. The implications of this are quite interesting with regards to theories of copular predication. First of all, assuming that NPs, for example, may function as predicates in Salish (Kroeber, 1999; Davis et al., 2004), there may be no need for any copula in non-verbal predications involving a main clause NP (contra Baker (2003) who assumes a predicational copula in these cases).

Regarding the predicate-argument distinction in Okanagan, the argument status of the  $iʔ$  DPs above is established by data like (4-5):

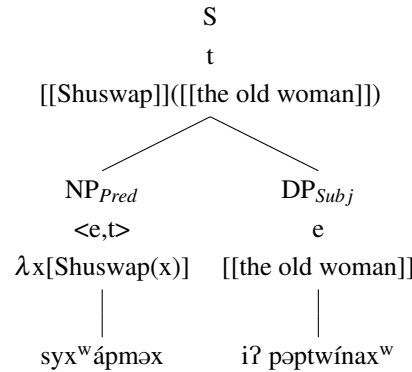
- (4) a.  $iʔ$   $tkʔmilx^w$   
 DET woman  
 a/the woman  
 \*She is a woman.
- b.  $tkʔmilx^w$   $\emptyset$ .  
 woman he/she/it  
 She is a woman.

- (5) a.  $\text{ʔay}\check{x}^w\text{t } \emptyset$ .  
           tired    he/she/it  
           He/she/it is tired.
- b.  $\text{ʔay}\check{x}^w\text{t } i\text{ʔ } tk\check{t}milx^w$ .  
           tired    DET woman  
           The woman is tired.

The DP  $i\text{ʔ } tk\check{t}milx^w$  ‘the woman’ in (4a) is not a complete sentence since there is no main clause predicate in this form, only a saturated argument expression, and null predicates are not possible. Okanagan, like other Salish languages, is a *pro*-drop language. This means that (4b) and (5a), unlike (4a), *are* interpretable as complete sentences given an appropriate context. In (5b), the subject is overtly realized as a DP consisting of the determiner  $i\text{ʔ}$  and its NP complement. The generalization is that Okanagan predicates do not require overt arguments in order to be interpretable as complete sentences; however, Okanagan argument expressions *do* require an overt predicate. Furthermore, given that NPs like  $tk\check{t}milx^w$  ‘woman’ can be predicates, the distinction in (4-5) is evidence that a determiner makes a constituent *non*-predicative (Longobardi, 1994; Chierchia, 1998).

Assuming that lexical categories are inherently predicative, and that  $i\text{ʔ}$  DPs are individual-denoting argument expressions, a simplified semantic analysis of a sentence like (2b) is given as Figure 1.1:

**Figure 1.1:** Function Application in an Okanagan Direct Predication



In brief, there appears to be a semantic distinction between syntactic categories,



where NPs, APs, VPs, and PPs can be predicative, while DPs cannot.<sup>1</sup> This fits with theories that D rather than N is crucial for referentiality (Longobardi, 1994) and that the determiner is crucial for converting a nominal predicate into an argument (Chierchia, 1998).

There is a class of structures in Okanagan that raise some potentially serious complications for this account, however. These are what I refer to as *DP-DP structures*, examples of which are shown in (6-8). Though there is little mention of DP-DP structures in the literature, N. Mattina (1996b, 30) notes that examples like (6-8) “consist of two adjacent [DPs] standing in an equivalence relationship interpreted as [DP = DP]. Equational sentences have neither a lexical verb nor a copula.”<sup>2</sup>

- (6) [ixíʔ<sub>DP</sub>] [iʔ pəptwínax<sup>w</sup><sub>DP</sub>].  
 DEM DET old.lady  
 She is the old lady.
- (7) [Spike<sub>DP</sub>] [iʔ ylmíx<sup>w</sup>əmə<sub>DP</sub>].  
 Spike DET chief  
 Spike is the chief.
- (8) [iʔ sqəltmíx<sup>w</sup><sub>DP</sub>] [iʔ səx<sup>w</sup>-píx-əmə<sub>DP</sub>].  
 DET man DET OCC-hunt-MID  
 The man is/was a hunter.

Assuming that all of the DP expressions in (6-8) are expressions of type *e*, a semantic derivation along the lines of Figure 1.1, without any functional intermediary, is not possible; but there is further evidence against analyzing either of the two DPs in (6-8) as predicates. Unlike sentences involving lexical predicates, as in (2-3), constituent ordering is either not free (in the case of demonstratives and proper names, given in (9-10)) or leads to interpretive differences (in the case of *iʔ* DPs, given as 11):

<sup>1</sup>PPs are only sometimes acceptable as predicates in Upper Nicola Okanagan, and are judged grammatical or ungrammatical seemingly at random. The reasons for this are unclear.

<sup>2</sup>N. Mattina (1996b) uses ‘NP’ where I use ‘DP’, hence the square brackets.

- (9) \*[iʔ pəptwínax<sup>w</sup> <sub>DP</sub>] [ixíʔ<sub>DP</sub>].  
 DET old.lady DEM  
 The old lady is her.
- (10) \*[iʔ ylmíx<sup>w</sup>əm <sub>DP</sub>] [Spike <sub>DP</sub>].  
 DET chief Spike  
 The chief is Spike.
- (11) [iʔ səx<sup>w</sup>-píʃ-əm <sub>DP</sub>] [iʔ sqəltmíx<sup>w</sup> <sub>DP</sub>].  
 DET OCC-hunt-MID DET man  
 #The man is/was a hunter.  
 The hunter is a man.

What explains the word order restriction of DP-DP structures? This question is particularly interesting in light of theoretical work on copular predication, and Higgins' (1973, 1979) taxonomy of these structures, which I discuss in some detail in chapter 2. I claim that the word order restriction shows that structures directly analogous to *specificational* sentences (a.k.a 'inverse predications') in English (Higgins, 1973; Moro, 1997) are ungrammatical in Okanagan.

As a reasonable null hypothesis, we could guess that specific discourse conditions make the Okanagan examples in (9) ungrammatical, since in English at least, specificational sentences are only felicitous in a subset of the contexts which support predication sentences (Higgins, 1973; Mikkelsen, 2005). For example, (12-13) show that the specificational sentence 'The winner is Sam' is only felicitous if 'the winner' is a topical expression, not if it is in focus (Mikkelsen, 2005).<sup>3</sup> In Okanagan, however, the relative discourse status of the initial DP is irrelevant in such question/answer contexts, and the inverse, specificational configuration will always be ungrammatical.

- (12) a. Q: Who is the winner?  
 b. A: Sam is the winner. (predicational)  
 c. A: The winner is Sam. (specificational)

<sup>3</sup>By 'topic', I informally refer to old information, or information that is already established in the discourse, while by 'focus', I mean new information being introduced to the discourse (Rochemont, 1986).

- (13) a. Q: Who is Sam?  
b. A: Sam is the winner. (predicational)  
c. A: #The winner is Sam. (specificational)

Elucidating the source of this word order restriction and of other differences between direct and DP-DP structures, will be the focus of the dissertation.

In addition, I will explore the structure and interpretation of Okanagan clefts, and will show that they exhibit the same word order restriction as DP-DP structures, and that they share other important information structural and morpho-syntactic parallels as well. As such, I claim that both simple DP-DP structures and clefts derive from one underlying equative configuration.

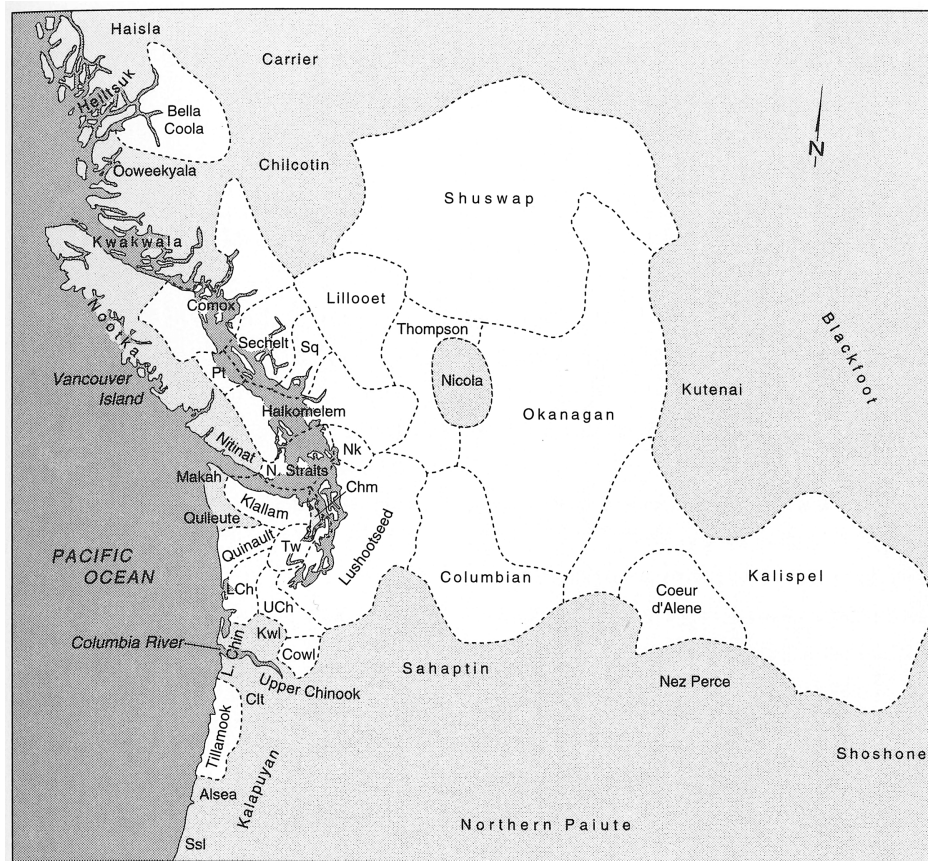
## 1.2 The Okanagan Language

The Southern Interior sub-branch of the Salish language family consists of Colville-Okanagan (Nsyílxcən), Moses-Columbian (Nxaʔamxcín), Coeur d'Alene (Snchitsu'umshtsn), and the dialect continuum known as Spokane-Kalispel-Flathead (Seliš). The geographic relation between the Southern Interior languages and other Salish languages is represented in Figure 1.2 below.

**Figure 1.2:** Geographic Distribution of Salish Languages

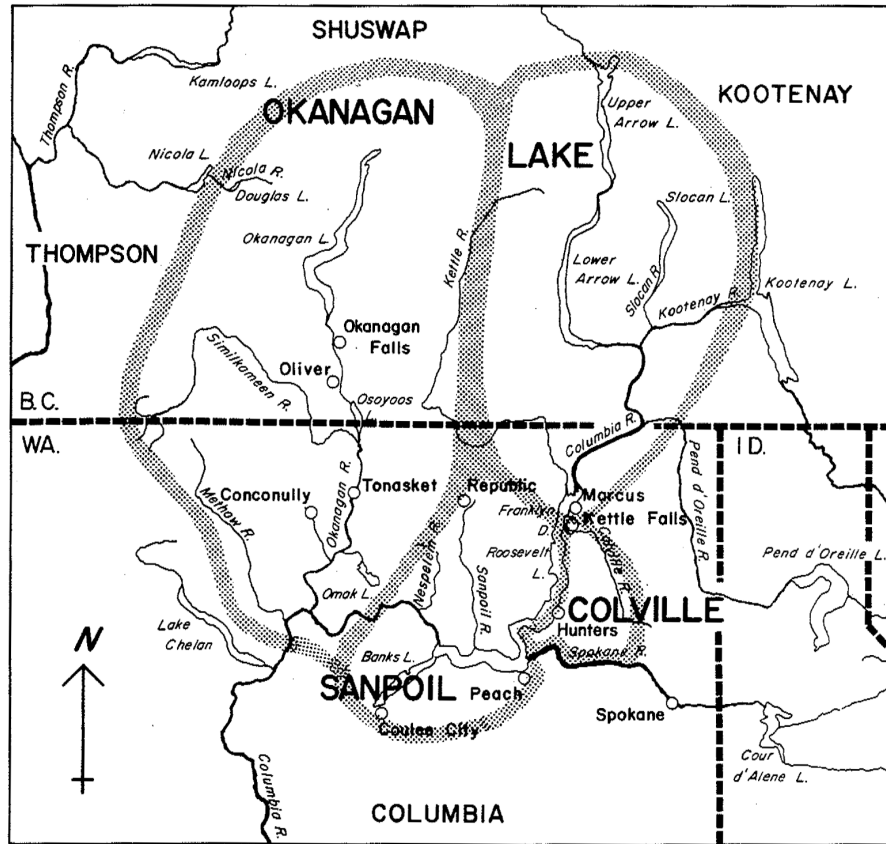
Map reproduced from *The Salish Language Family: Reconstructing Syntax* by Paul D. Kroeber (p. xxxi) by permission of the University of Nebraska Press.

Copyright 1999 by the University of Nebraska Press.



Okanagan is spoken in South-central British Columbia and North-central Washington. It is critically endangered, being spoken by only about 250 speakers in Canada (FPHLCC, 2010), and by fewer in the United States. Four major dialect areas are recognized for the Okanagan language. These are represented in Figure 1.3 as the northern dialects of ‘Okanagan’ proper and ‘Lakes’, and the southern dialects of ‘Sanpoil’ and ‘Colville’.

**Figure 1.3:** Okanagan Dialect Areas (from Doak (1983, 17))



There are finer-grained dialect distinctions to be made as well, however. A sub-dialect of Okanagan proper is spoken in the Upper Nicola River valley and around Nicola Lake, in the extreme northwest periphery of the Okanagan language area. I refer to this dialect as the ‘Upper Nicola’ dialect, though it is sometimes also referred to as the ‘Douglas Lake’ dialect. The majority of the data in this dissertation come from the Upper Nicola dialect. Differences between Okanagan dialects are primarily lexical in nature, though I have also found several grammatical differences between the Upper Nicola dialect and published data from the main Okanagan dialect and from Colville.<sup>4</sup>

<sup>4</sup>The grammatical differences which I have found are primarily related to the distribution of the

The Upper Nicola Okanagan Band is centered around the Douglas Lake (Spáẓ-mən) and Quilchena (Nłqílməlx) reserves, close to the town of Merritt, B.C. The Nicola Valley was originally inhabited by the Nicola Athapaskan people (cf. Figure 1.2), who lived in the area until they were absorbed by Salish-speaking peoples in the 19th century (Boas and Teit, 1930). The Upper Nicola dialect of Okanagan is spoken by perhaps as few as 12 speakers (Sharon Lindley, p.c.), all in their seventies and eighties. This dialect is interesting, in part, because of its divergence from the more commonly heard Okanagan Valley dialect. These divergences stem from several factors, including geographic isolation, a high degree of bilingualism (Thompson-Okanagan), but also influence from neighboring Thompson and Shuswap groups, who contemporaneously with the Okanagans, used the Nicola Valley as a summer hunting ground (Boas and Teit, 1930).

### 1.3 Ethics

The scope of my work falls under Dr. Henry Davis' SSHRC grant #410-2008-2535, and proceeds under the ethical consent guidelines as outlined in the UBC Behavioural Research Ethics Board.

The opportunity to conduct linguistic work with Upper Nicola speakers arose from a request by Sharon Lindley, to Henry Davis, that linguists should come into the community in order to document the language and to assist in producing curriculum resources. Sharon Lindley is the former principal of Nk'wala school in Douglas Lake, the language representative of the Upper Nicola Band at the En'owkin Centre in Penticton, and by community consensus, an authority figure and champion of the language. As part of the process of documenting the language, it was understood that I could collect materials which would enable me to produce a dissertation.

Prior to commencing work with speakers of the Upper Nicola dialect in December 2008, Dr. Davis and I attended an Elders' meeting, at the behest of Sharon Lindley, and at which the majority of the remaining speakers in Douglas Lake and Quilchena were present. At this meeting, the Elders identified the 'most fluent'

---

determiner and oblique marker before nouns, given a specific grammatical context. I discuss these differences when relevant.

of these speakers as being Lottie Lindley, and recommended that she be our primary language resource in the community. After personally contacting Lottie and other speakers who I thought might be interested in occasional or regular language work, we set up an initial appointment. The speakers were then asked to sign an ethical consent form, in accordance with the requirements of the UBC Behavioural Research Ethics Board.

With permission of the speakers and community, my textual and sound data are either currently, or will be, archived at the University of Washington Special Collections, Melville Jacobs archive, in Seattle WA; and at the American Philosophical Society's archives in Philadelphia, PA. Additionally, I have given copies of all my data to the community; both directly to the speakers with whom I work, as well as to Sharon Lindley. In building my relationship with the Upper Nicola community, I have endeavored to create and share language resources which might be deemed useful in language preservation and education, such as several subtitled and dubbed Okanagan films, as well as two collections of Upper Nicola narratives by Lottie Lindley (Lindley and Lyon, 2012, 2013).

## **1.4 The Data**

The data in this dissertation come primarily from two speakers of the Upper Nicola dialect, Lottie Lindley and Sarah McLeod. I have worked with these two Elders far more than with any other speakers in the community. I have also conducted several elicitation sessions with Hank Charters, Nancy Saddleman, Rita Stewart, Wilford Tom, and Teresa Tom during the course of my work in the Upper Nicola valley.

### **1.4.1 Methodology**

The bulk of the data I cite consists of elicited material. Canonically, I give the speaker a sentence in English which may be paired with a context, and the speaker translates the English sentence into the Okanagan equivalent. In other cases, I construct a context, and give the speaker a question in Okanagan, and they provide the contextually appropriate Okanagan answer.

Ideally, I choose data that is volunteered by speakers in response to a given English sentence. In some cases, in order to show a contrast in terms of grammatical-

ity, I cite data which I have constructed that has been judged either grammatical or ungrammatical by a speaker. Constructed data is based on a volunteered form, but minimally altered. In most cases, grammatical forms have been volunteered which are directly parallel to constructed data which I cite. Unless otherwise noted, the data patterns which I investigate have been found to be consistent across speakers.

I also utilize data that does not come from an elicitation session. Other data sources include sentences which are gleaned from volunteered texts, either from Lottie Lindley (Lindley and Lyon, 2012) or Sarah McLeod, from Colville sources such as *The Golden Woman* (A. Mattina 1985) or *Dora DeSautel's* *łaʔ kłcaptík<sup>w</sup>ł* (A. Mattina and DeSautel 2002), or from Yvonne Hébert's unpublished Upper Nicola corpus. I note data which has been extracted from sources other than my own. I make every effort to cite Upper Nicola data where possible, since it is possible that there is significant dialect variation related to one or more crucial points of grammar in this dissertation.

#### 1.4.2 Interlinear Glossing and Orthographic Conventions

I use a three-level representation when presenting interlinear data: A 'near-phonemic' representation, a morpheme gloss, and a translation. Grammatical data is unmarked, ungrammatical data are introduced by an asterisk (\*), marginally acceptable data or data whose grammaticality status is unclear are introduced by a superscript question mark (?), and contextually infelicitous data are introduced by a hash mark (#). An example is given below:

- (14)    uc    wik-s                            iʔ    sqəłtmíx<sup>w</sup>   iʔ    xíxwtəm?  
           DUB see-[DIR]-3SG.ERG DET man            DET little.girl  
           Did the man see the little girl?

I discuss each of these three levels separately in the following sub-sections.

#### Near-Phonemic Transcription

The first level consists of an Okanagan transcription using a standard Americanist (a.k.a. Northwest) orthography. This orthography has traditionally been used in Salish linguistics since the 1960's. It is the dominant orthography for Okana-



gan, and has been used in such references as the *Colville-Okanagan Dictionary* (A. Mattina 1987).<sup>5</sup> I refer the reader to Hébert (1982b) and Hébert (1982a) for a detailed discussion of Americanist orthographic conventions.

Because the phonetics of Okanagan by-and-large correspond transparently to the underlying phonemic representation, I have decided not to give an additional phonetic line when presenting data, unlike in A. Mattina and DeSautel (2002), for example. The symbols I use, and their approximate phonetic values, are given in the consonant and vowel charts in section 3.1. My transcriptions are ‘near phonemic’ rather than simply ‘phonemic’ because I use schwa [ə], which is not a full vowel (A. Mattina 1973, 10). I use schwa phonetically, as I hear it. Most often, a schwa functions to break up consonant clusters, and in my own opinion makes the Okanagan easier to read.

There are exceptions to the generalization that Okanagan morpho-phonology is transparent, including for example (i) null transitivizers in 1st and 3rd person ergative constructions with inherently stressed (a.k.a. ‘strong’) roots (see 14), (ii) absorption of the final nasal in 1st and 2nd person possessive *in-* and *an-* preceding a nominal beginning with *s-* and (iii) the reduction of the *i?* determiner before 1st and 2nd person possessive prefixes. For cases like (i), I indicate a null transitivizer within square brackets in the morpheme gloss line (e.g. [DIR] in 14). For cases like (ii), I indicate the nasal in square brackets. For cases like (iii), I will give an *i?* determiner in square brackets. My use of parentheses is distinct from my use of square brackets: parentheses indicate optional material.

I mark primary stress at the word level by an acute accent. For mono-syllabic words, or words with only one full vowel and no perceptible schwa, I do not mark stress. I divide each Okanagan word into morphemes, using a hyphen (-). Each

---

<sup>5</sup>At least two other orthographies exist for Okanagan. The first was originally developed by Randy Bouchard in the 1960’s and represents Okanagan phonemically using Latin characters. It is essentially equivalent to the practical orthography used to write St’át’imcets (the Lillooet language) (cf van Eijk (1997)), yet is no longer used for Okanagan as far as I am aware. The second was developed by Christopher Parkin and Sʔamíʔaʔ (Sarah Peterson) at the Paul Creek language school, and is currently used at the Salish School in Spokane, WA. It is gaining currency at centers for Nsyílxcən language such as the En’owkin Centre in Penticton, B.C., perhaps due to the relatively large volume of curriculum materials available in this orthography, or perhaps because it is easier to learn than the standard Americanist orthography. The major difference between the Americanist and Paul Creek orthographies is that schwa (ə) is not used in the latter; instead, the schwa is signalled by placing an apostrophe on the immediately following consonant.

hyphenated morpheme corresponds to a gloss in the morpheme gloss line.<sup>6</sup> I do not generally indicate null 3SG.ABS pronouns in either intransitive or transitive contexts.

For cited data from other Salish languages, I use a standard Americanist orthography in the transcription line. I change morpheme glosses in some cases to reflect my labelling of the equivalent Okanagan morphemes. If there is no equivalent morpheme in Okanagan, or I do not cite an equivalent Okanagan morpheme in this dissertation, I retain the author's original morpheme gloss.

### **Morpheme Gloss**

The second line of data consists of a morpheme gloss. A given morpheme may either consist of grammatical information, in which case it is glossed in small caps using one of the abbreviations given in the Abbreviations table (pp. xvi-xvii), or of lexical information, in which case it occurs in normal, Roman type. Covert morphology is indicated either in the morpheme gloss by square brackets, or in the Okanagan transcription within square brackets.

Glossing conventions, and my choice of abbreviations, are primarily those used in (Matthewson, 2005) *I Wan Kwikws* and Lindley and Lyon (2012), with supplemental glosses borrowed when needed from works such as A. Mattina and DeSautel (2002) and other sources. I have endeavoured to use standard abbreviations (e.g. DET for 'determiner') whenever possible.

### **Translation**

Translations of Okanagan volunteered forms consist of the English sentence which was given as a prompt for the Okanagan form. For cases where an Okanagan form was volunteered in response to a contextual prompt, either the speaker's own English translation is given, or a translation which reflects the Okanagan form as literally as possible. For constructed data involving negative judgements, I provide the closest equivalent English translation.

---

<sup>6</sup>Cf. A. Mattina (2008) for a useful discussion on how to parse some of the more problematic forms.

## 1.5 Salish Literature Review

There is a substantial body of literature in Salish linguistics, without which this dissertation would not have been possible. I summarize the most relevant works for this dissertation in this section, dividing my discussion of the literature into three parts: Okanagan, Southern Interior Salish, and Northern Interior Salish.

### 1.5.1 Okanagan

Linguistic work on Okanagan may be said to have originated with James Teit (cf. Boas and Teit (1930)), but not until the late 1960's did intensive work on the language begin. Early work includes Watkins (1970), a dissertation on phonology, and Anthony Mattina's dissertation *Colville Grammatical Structure* (A. Mattina 1973) which focuses mainly on the phonology and morphology of the language. Among Mattina's other works are *The Golden Woman* (A. Mattina 1985), an interlinear analysis of a Colville narrative, and the invaluable *Colville-Okanagan Dictionary* (A. Mattina 1987). I found the IJAL paper *The Colville-Okanagan Transitive System* (A. Mattina 1982) to be a useful reference for understanding the Okanagan pronominal system. Nancy Mattina's *Aspect and Category in Okanagan Word Formation* (N. Mattina 1996b) provides an extremely useful analysis of the Okanagan aspectual and tense systems.

The Upper Nicola dialect itself has received comparatively little documentation, with the exception of a phonological overview (Pattison, 1978), and a series of papers by Yvonne Hébert, including her dissertation *Transitivity in (Nicola Lake) Okanagan* (1982b), and a report to the Canadian Ethnological Service *Clausal structure in (Nicola Lake) Okanagan* (Hébert, 1982a).

A highly useful resource for Okanagan linguistics is *The Kinkade Collection: the On-Line Archive of Papers for the International Conference on Salish (and Neighbo(u)ring) Languages*. This on-line archive is the result of several years of digitizing and organizing ICSNL conference papers, some of which were otherwise very difficult to find. Included in this collection are many important papers by Anthony Mattina on the morpho-phonology and morpho-syntax of Okanagan. ICSNL papers which I have personally found very useful are *Okanagan Aspect: A Working Paper* (A. Mattina 1993a), a precursor to Nancy Mattina's dissertation (N. Mattina

1996b), and *Okanagan sentence types: A preliminary working paper* (A. Mattina 2001), which makes brief mention of DP-DP structures and the absence of any copula in the language.

### 1.5.2 Southern Interior Salish

Linguistic material and analyses from other Southern Interior Salish languages, particularly Moses-Columbian, have proved useful to me in terms of understanding how Okanagan fits into the areal picture, and for establishing base-line hypotheses concerning previously unresearched corners of Okanagan grammar.

Most noteworthy is Nancy Mattina's IJAL paper *Determiner Phrases In Moses-Columbia Salish* (N. Mattina 2006), in which I found an areal basis for many of the ideas which I develop concerning the semantics of the Okanagan *i?* determiner and how these DPs contrast with oblique-marked nominals. Another document on Moses-Columbian which I found useful was Marie Willett's dissertation *A Grammatical Sketch of Nxa'amxcin (Moses-Columbia Salish)* (Willett, 2003). Additionally, Ewa Czakowska-Higgins has kindly made available some of her field notes.

### 1.5.3 Northern Interior Salish (and other Salish languages)

There has been much high-quality descriptive and theoretical work on the Northern Interior Salish languages of Lillooet (St'át'imcets), Thompson (Nłeʔkepmxcín), and Shuswap (Secwepemctsin). I mention some of the most relevant work here.

Henry Davis's and Lisa Matthewson's work on Lillooet has proved indispensable to me in establishing the basic syntactic and semantic premises upon which I build my main arguments, specifically in three areas: relative clauses, determiner semantics, and clefts. Other scholars in the field, notably Dwight Gardiner, Carrie Gillon, Karsten Koch, Paul Kroeber, and Jan van Eijk have also made important contributions in one (or more) of these three areas, which I discuss below.

First, Davis (2002, 2004, 2010a), building on previous observations in Kroeber (1999) establishes the basic argument for Lillooet that relative clauses are formed by means of clause-internal movement of a DP. Koch (2006) shows that the same facts hold for Thompson. These analyses provide a framework, and a point of comparison, for my analysis of Okanagan relative clauses, which I claim are also

formed by clause-internal movement.

Matthewson (1998, 1999, 2001) provides a comprehensive analysis of the semantics of the determiner system in Lillooet, as well as a detailed explanation of how Salish determiners differ semantically from those in English. Carrie Gillon (Gillon, 2006, 2009a,b) provides a similarly detailed analysis of the Squamish determiner system. My own analysis of the semantics of Okanagan DPs rests heavily on Matthewson's and Gillon's original work.

Davis et al. (2004) investigates cleft structures in Lillooet and Northern Straits Salish, and establishes that they imply without presupposing or entailing exhaustivity, and do not carry a presupposition of existence, unlike English clefts. These information structural properties also hold for Okanagan. Koch (2008a) presents a detailed analysis of focus and information structure in Thompson, and Koch (2009) provides an analysis of Thompson clefts. His argument that focus in Thompson Salish is not realized by pitch-accent, but by linear alignment, is an important finding. I claim that linear alignment constraints also play a role in the information structure of Okanagan.

Other works which have been helpful to me include Gardiner (1993), which examines the syntax of topicalization in Shuswap, and van Eijk (1997), which consists of a detailed grammar of Lillooet morpho-phonology.

## **1.6 Outline of the Dissertation**

This dissertation is structured as follows:

Chapter 2 presents theoretical background on issues involving copular predication and clefts, and a discussion of the analytical tools which I use for my analysis of Okanagan predications and equatives.

Chapter 3 presents some basic aspects of Okanagan grammar, including phonology, pronominal inflection, and brief notes on the transitivity and the tense and aspectual systems, followed by a more in-depth discussion of word order.

Chapter 4 investigates the general distribution of DPs in non-predicative contexts in Okanagan, and the internal structure of DPs, particularly those headed by the determiner *i?*. The internal structure of DPs is particularly important with regards to the distribution of DP-internal 'prepositions', or locative markers, which

are a general characteristic of the Southern Interior. These data are important for understanding the syntax of relativization, as presented in chapter 6.

Chapter 5 consists of a detailed investigation of the semantics of the determiner *i?*, and DPs headed by this determiner. I argue that *i?* is non-presuppositional and context-sensitive, similar to Squamish deictic determiners (Gillon, 2006, 2009a), but non-deictic. The semantics of *i?* DPs is crucial for understanding DP-DP structures, as well as the non-presuppositional and non-exhaustive characteristics of Okanagan DP-DP structures and clefts.

Chapter 6 presents data on attributive modification and relative clause modification. Diagnostics are developed for distinguishing these two types of nominal modification, and a movement analysis based on locative and oblique-centered relative clauses along the lines of Davis (2004, 2010a) and Koch (2006) is motivated. The data and analysis of relative clauses in this section are important for clarifying the structure of cleft residues, which I claim to be categorially DPs in Okanagan.

Chapter 7 introduces Okanagan DP-DP structures, and discusses how these differ from direct predications. Based on a word order restriction which I take to be evidence that neither constituent in a DP-DP structure is predicative, I claim that DP-DP structures involve a null equative copula (Heycock and Kroch, 1999; Romero, 2005). I then discuss information structural properties of DP-DP structures. These include an exhaustivity implicature (Davis et al., 2004), an absence of any presupposition, and a requirement that a referential, focused DP occur initially. This means that Okanagan does not have specificational sentences (a.k.a. ‘inverse copular clauses’) (Higgins, 1973). Explaining the absence of specificational sentences presents a challenge: the observation is that in DP-DP structures involving either a proper name or a demonstrative and an *i?* DP, the *i?* DP must follow the proper name or demonstrative. This poses a problem for a simple equational analysis since both DPs denote individuals, and neither the equative functional head nor focus can distinguish among different types of DPs. Intuitively, the distinction between demonstratives and proper names on the one hand, and *i?* DPs on the other, is that the former are directly referential, whereas the latter are not. I suggest that the Okanagan equational head is of type  $\langle\langle s, e \rangle, \langle e, t \rangle\rangle$  (Romero, 2005; Comorovski, 2007), and links an intensional individual (an *i?* DP) to its extension. The equative head assigns a feature ‘F’ to its second argument, and this feature is

interpretable as ‘focus’. Focus-sensitive alignment constraints (Koch, 2008a) then ensure that the focused DP occurs left-most.

Chapter 8 introduces Okanagan clefts, and discusses how they are similar to, and different than clefts in other Salish languages. I show that Okanagan clefts consist of two DPs, and have an information structure identical to that found in DP-DP structures, as discussed in chapter 7: they imply exhaustivity (Davis et al., 2004), do not carry any presupposition of existence, and require that the focused DP precede the residue DP. I then discuss morphosyntactic evidence that clefts are structurally equivalent to DP-DP structures, which implies that clefts, too, are equatives.

Chapter 9 discusses typological and theoretical implications of my analysis, addresses some further questions, and concludes.

## Chapter 2

# Predication and Equation: Theoretical Background

This chapter presents theoretical background and tools relevant to my analysis of Okanagan predications and equatives, and consists of four main sections: (i) predication versus equation, and Higgins' (1973,1979) taxonomy; (ii) syntactic and semantic theories of specificational copular sentences; (iii) focus and information structure; and (iv) clefts.<sup>1</sup> A more detailed outline of this chapter follows.

First (section 2.1), I present semantic background on predication and equation, and discuss the question of whether the English copula *be* is best analyzed as being ambiguous between a predication and an equative copula, or is unambiguously predication (Partee, 1986). I next discuss Higgins' (1973,1979) taxonomy of copular sentences, and summarize more recent efforts in the literature to simplify this taxonomy (Mikkelsen, 2011).

Second (section 2.2), I contrast two analyses of specificational copular clauses. One school of thought claims that all non-verbal predication is mediated via the same functional head (Adger and Ramchand, 2003; den Dikken, 2006) and that specificational clauses are derived from predication clauses by syntactic inversion ('predicate raising'). The other school claims that predication and equative

---

<sup>1</sup>Particularly useful to me in drafting this section were summary articles (or articles with good summaries) on copular predication (Mikkelsen, 2011), clefts (Reeve, 2007), and focus and information structure (Krifka, 2008).



copular clauses are structurally distinct, and that specificational sentences are a type of equative (Heycock and Kroch, 1999; Heycock, 2012). I discuss in some detail the problem of how best to treat specificational sentences, as pragmatically asymmetrical, within an equational semantics. Of immediate relevance to Okanagan are Romero (2005) and Comorovski (2007), who claim that the equative copula is sensitive to intensionality. I present a similar analysis of the Okanagan equative copula in chapter 7.

Third (section 2.3), I discuss the alternatives-based approach to focus representation (Rooth, 1985, 1992). Focus theory is an important component of my analysis of Okanagan equatives, since I claim that the subject of an equative is always a focused element. To close this section, I summarize the findings of Koch (2008a) and Koch and Zimmermann (2009) with regards to focus alignment in neighbouring Thompson River Salish, and the non-universality of the stress-focus correspondence.

Fourth (section 2.4), I discuss theories of English clefts which analyze the clefting pronoun as a discontinuous definite description with the residue clause, and which link the semantic and pragmatic effects of English clefts to the semantics of the definite determiner (Percus, 1997; Hedberg, 2000). In chapter 8, I show how Okanagan clefts support these theories.

## **2.1 Predication and Equation**

### **2.1.1 Defining Predication: Semantic Issues**

This section introduces some of the basic semantic concepts underlying theories of predication, including a brief discussion of some complications which arise from interpretive ambiguities in English predication, and the importance of correctly identifying the ‘locus’ of predication. These foundational issues are important for understanding how Okanagan predication is both similar to and different from that found in English.

## Predication Versus Equation

The English copula *be* mediates relations of predication and equation (a.k.a. identity) between two words or phrases. Whether the relation happens to be one of predication or equation is partially dependent on the semantic type of the words or phrases in the relation.<sup>2</sup> Consider the following two sentences:

- (1) a. *Predication*: Tully is a bank robber.
- b. *Equation*: Cicero is Tully.

Properly speaking, a *predication* relation is one that holds between an individual and a property. In other words, an individual  $x$  is understood as having a property  $P$ , or  $x$  is a member of the set denoted by  $P$ . Thus in English, in order for (1a) to be true, Tully must belong to the set denoted by *a bank robber*.

An *equative* relation is one that holds between two individuals. In English, if we say *Cicero is Tully*, the most straightforward interpretation is that we are asserting that the individual denoted by *Cicero* is identical to the individual denoted by *Tully* (1b). Note however that (1b) also has a predicational reading in the context where, for example, Cicero is playing the part of Tully in a play. This serves to illustrate that the distinction between predication and equation cannot necessarily be understood strictly in terms of inherent differences between noun classes, but involves referentiality more generally.

## The Locus of Predication and Equation: The Copula or a Pred-head?

Under some theories, the copula *be* itself instantiates the predication and identity relations (Partee, 1986); however, not all theories of English predication automatically assign the copula a predicative semantics. Moro (2000) and den Dikken (2006), for example, attribute the semantics of copular predication to an abstract and usually covert functional projection called the *Pred-head* (Bowers, 1993; Baker, 2003)<sup>3</sup>, which links the subject to the predicate in a small clause configuration. For

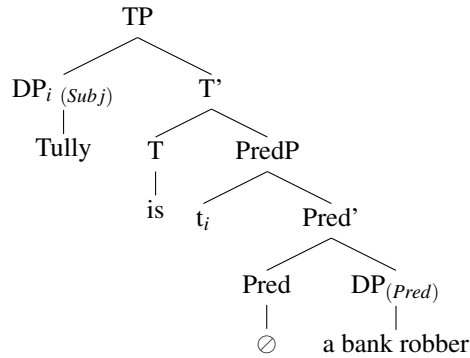
---

<sup>2</sup>Higher order predications and equational relations are also logically and linguistically possible (Partee, 1986; Heycock and Kroch, 1999).

<sup>3</sup>den Dikken (2006) refers to the Pred-head as a *Relator*. The copula can, but does not have to be, a Pred-head, but is in the sentence *The earth might be round* according to den Dikken (2006, 15), since T is filled by a modal.

these theories, the copula is often relegated to the role of tense-carrier, and so minimally conveys the information that, for example, *Tully* is *a bank robber*, or that *Cicero* is *Tully*, at the present time. Under a Pred-head analysis, sentence (1a) may be represented as follows:

**Figure 2.1:** The Copula ‘be’ and a Null Pred-head



For the structure underlying Figure 2.1, the copula selects for a PredP small clause, headed by a null functional projection, the Pred-head. The Pred-head links the predicate complement DP *a bank robber* to the referential subject *Tully*, and the subject raises over the copula. I discuss the motivation for this structure in later sections, but suffice it here to note that it is the Pred-head which functions as the predication intermediary in Figure 2.1, not the copula ‘be’.

### Copular Complements and Interpretive Ambiguities

Complements of copulas in English come from a range of syntactic categories, as shown in (2) below. They are only rarely NPs, as with *boss* in (2a). A location may be predicated of an individual *John* by means of a PP predicate (2b), and an attributive property by means of an AP predicate (2c). A property may also be predicated of *John* by means of a definite DP (2d).<sup>4</sup>

<sup>4</sup>This is not necessarily always the case for (2d) since multiple readings are available. Higgins (1973) holds that the definite description is either predicated of the subject *John*, or else identifies who *John* is. These two interpretations correspond to Higgins’ *predicational* and *identificational* classes, respectively. There is a third, *equative* interpretation of (2d) as well. See section 2.1.2 for a discussion of Higgins’ taxonomy.

- (2) a. John is [boss<sub>NP</sub>].  
 b. John is [from Huntsville<sub>PP</sub>].  
 c. John is [tall<sub>AP</sub>].  
 d. John is [the President of the United States<sub>DP</sub>].

I assume that the semantic relation between an individual *John* and the predicates in (2a-c) may be captured assuming a formalism like (3) for the English copula, where  $x = \text{John}$  and  $P = \text{boss, from Huntsville, tall}$  (Williams, 1983):

$$(3) \quad \lambda P \lambda x. P(x)$$

Insofar as *the President of the United States* in (2d) denotes an occupation, it also denotes a property of *John*, and the predication relation in (2d) may likewise be represented by (3). But if we instead assume one fairly standard analysis of the definite determiner *the* (4) (Heim, 2011), the DP in (2d) will denote a maximal *individual*, and we are faced with the problem of having two individual-denoting expressions, but no predicate.<sup>5</sup>

$$(4) \quad \llbracket \text{the} \rrbracket = \lambda P : \exists x \forall y [P(y) \leftrightarrow x = y]. \iota x. P(x)$$

There are two basic solutions to this problem, discussed at length by Partee (1986). One analysis, which may be referred to as *ambiguous be*, proposes that *be* is ambiguous between a denotation like (5a, cf 3) and one which equates two individuals, as in (5b):<sup>6</sup>

<sup>5</sup>The formula in (4) takes a nominal predicate  $P$  as its argument, and presupposes that there is an individual  $x$  which has the property  $P$ , and that for all other individuals  $y$ , if  $y$  has the property  $P$ , it must be identical to  $x$ . This is a presupposition of uniqueness. It then asserts (by means of the iota operator  $\iota$ ) that  $x$  is the only individual with the property  $P$ .

<sup>6</sup>Under the ‘ambiguous be’ approach, two individuals may also be equated by means of the ‘up’ operator  $\cup$  of Chierchia (1984), as in (i), which maps an individual onto the singleton set of all individuals that are identical to it:

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

A copula like (i) will yield a proposition essentially equivalent to the result of (3), the only difference being the semantic type of the first argument. Partee (1986) refers to the ‘up’ operation as *Pred*, and notes that (i) is in some ways conceptually preferable to (5b), since *ambiguous be* can then at least be understood as always linking a predicate expression, whether inherent or derived, with its argument. Locating a type shift in the English copula itself (i) does not remove the need for a predicational copula (5a) in cases where the complement expression is a property-denoting NP, PP or AP (cf. 2).

- (5) a.  $\lambda P \lambda x. P(x)$   
 b.  $\lambda y \lambda x. [x = y]$

The other analysis, which Partee (1986) instead argues for, may be referred to as *unambiguous be*, and assumes a single copula (5a) by allowing definite DPs and other individual-denoting expressions to type shift into predicates before the copula selects them as complements. This means that English DPs must be able to freely type-raise into properties.

There is much debate in the literature on whether a type-shifting approach or one involving a separate equative copula is preferable. Choosing one approach over the other for any given language depends in part on whether there is independent evidence that expressions in that language may type-shift. After discussing Higgins' taxonomy in more detail in the next section, I will touch on some of the finer grained points of this debate. For now, it is sufficient to note that copular clauses like (2d) *John is the president of the United States* exhibit both predicational and equative interpretations, depending on whether or not the definite DP is construed as referential in context, and that these different interpretations receive explanation under both the 'ambiguous be' and 'unambiguous be' approaches.

An important set of questions arises as to whether the semantics of predication can vary cross-linguistically. More specifically, do all languages display evidence for an ambiguity either in the locus of predication (i.e. copula or Pred-head) or in the semantics of DPs, as English does, or are we sometimes able to dispense with ambiguities altogether?

### 2.1.2 Copular Clauses and Higgins' (1973) Taxonomy

The previous section introduced some of the basic semantic concepts and issues which are important to any theory of predication. I now move on to a discussion of Higgins' (1973) taxonomy of English copular clauses. This taxonomy has been an important standard in the literature for motivating taxonomies of non-verbal predications in other languages (e.g. Danish (Mikkelsen, 2005) and Hebrew (Heller, 2005)), and will also be useful for comparing Okanagan with other languages.

To begin with, as discussed in the previous section, English normally requires a tensed form of the copula *be* in main clause predications. The post-copular pred-

icate complement may consist of any one of a range of syntactic categories, as shown in (6).

- (6) a. *AP Predicate*: John is busy.
- b. *NP Predicate*: Lucy is boss.
- c. *PP Predicate*: Nancy is from Douglas Lake.
- d. *DP Predicate (indefinite)*: Sarah is a teacher.
- e. *DP Predicate (definite)*: Obama is the president.

In main clause contexts, a predicate complement cannot generally precede a referential subject (7a-d), unless the predicate complement is a definite DP (7e).<sup>7</sup>

- (7) a. *AP Predicate*: \*Busy is John.
- b. *NP Predicate*: \*Boss is Lucy.
- c. *PP Predicate*: \*From Douglas Lake is Nancy.
- d. *DP Predicate (indefinite)*: \*A teacher is Sarah.
- e. *DP Predicate (definite)*: The president is Obama.

There thus appears to be something special about copular clauses containing two DPs.

The syntactic and semantic relationship between sentences like (6e) and (7e) has been the focus of much debate in the literature. Narrowing our focus for a moment onto copular clauses involving two DPs, Higgins (1973) establishes a four-way taxonomy for English copular clauses. Examples of each class are given as follows:

- (8) a. *Predicational*: Tully is a/the bank robber.
- b. *Specificational*: The bank robber is Tully.
- c. *Equative*: The morning star is the evening star.
- d. *Identificational*: That place is Vancouver.

The taxonomy is based on whether a DP is interpreted referentially or not, given a discourse context and a specific syntactic position within the predication.

---

<sup>7</sup>This is an oversimplification, since PP inversions like (7c) are sometimes possible as highly stylistic variants, and indefinite DPs can precede referential subjects if the DP contains a modifier (Mikkelsen, 2005), e.g. *A good president if ever there was one is Obama*.

Table 2.1 shows how each of the DPs in (8) pattern with regards to referentiality.<sup>8</sup> I now discuss each of Higgins' categories in more detail.

**Table 2.1:** Referentiality and Higgins' Taxonomy (adapted from Mikkelsen (2011, 1810))

| Copular sentence type | 1st DP          | 2nd DP             |
|-----------------------|-----------------|--------------------|
| predicational         | referential     | non-referential    |
| specificational       | non-referential | referential        |
| equative              | referential     | referential        |
| identificational      | referential     | 'identificational' |

### Predicational Sentences

Under Higgins' (1973) theory, the initial DP in a *predicational* clause is referential, and the post-copular complement denotes a property which is predicated of the subject. Predicational sentences like (8a) consist of a subject (e.g. *Tully*) and a predicate (e.g. *a bank robber*), linked by a tensed copula. Examples (6a-6d) are also predicational, since AP, NP, and PP predicates all denote properties. (6e) too has a predicational reading since *the president*, as an occupation, is interpretable as a property of an individual under the assumption that the DP can raise to a property type in this environment (Partee, 1986).

In terms of their distribution in discourse, predicational sentences are unrestricted. This stems from the information structural properties of predicational sentences: Initial referential DPs and non-referential predicative DPs in final position can both represent either new or old information, though intonation patterns will differ. Thus, (10) can answer either (9a) or (9b).

- (9) a. Who is Tully?  
b. Who is a/the bank robber?

<sup>8</sup>It is unclear what 'identificational' means in Higgins' use of term in describing the referential properties of the 2nd DP in an identificational sentence (cf. Table 2.1, bottom right). Intuitively at least, both expressions in an identificational sentence are referential, and as such, these might be grouped with the equatives. The difference between the two classes is one of pragmatic function: identificationals are used for identifying names of things, generally speaking.

- (10) Tully is a/the bank robber.

Subjects of predication sentences may also contain a modifying clause (11a) or be referential WH-clauses, as in the predication pseudocleft (11b):

- (11) a. The card/present/thing I bought for Sue is expensive.  
b. What I bought for Sue is expensive.

The predicative status of the complement in a predication clause is confirmed by English small clauses, which normally occur in embedded contexts as complements of Exceptional Case Marking (ECM) verbs like ‘consider’ (12a). Small clauses are truth conditionally equivalent to full CPs (12b), but optionally lack any copula (12a). The generalization here is that referential expressions, like *John* in (12c), are not permitted as complements within a small clause unless an overt copula is present.

- (12) a. I consider [John (to be) a dangerous driver *SC*].  
b. I consider [that John is a dangerous driver *CP*].  
c. I consider [a dangerous driver \*(to be) John *SC*].

Predication sentences thus exhibit the canonical English subject-predicate ordering (Moro, 1997) as required in bare small clauses. Inverse predicate-subject ordering is marked in English, as indicated by (12c). This leads naturally into a discussion of specificational sentences.

### Specificational Sentences

Intuitively speaking, specificational sentences specify who or what something or someone is, rather than saying something about someone or something, as is the case with predication sentences (Mikkelsen, 2011, 1809). In English, specificationals restrict the domain of a predicative, discourse-old initial DP by identifying a specific individual from within that domain via the second DP (Higgins, 1973; Mikkelsen, 2011), or according to Akmajian (1979), the second, referential DP provides a value for a variable introduced in the first, non-referential DP.

Consider that specificational sentences (13c,14c) are only felicitous in a subset of contexts for which their predication variants are felicitous (13b,14b).



(13) a. Q: Who is the winner?

b. A: Sam is the winner.

c. A: The winner is Sam.

(14) a. Q: Who is Sam?

b. A: Sam is the winner.

c. A: #The winner is Sam.

The DP *the winner* represents old information (i.e. the ‘topic’) in (13b,c), but new information (i.e. the ‘focus’) in (14b,c). The pragmatic markedness of specificational sentences may be traced to the requirement that the initial DP represent or contain old information (Birner, 1996; Mikkelsen, 2005).<sup>9</sup> There is thus an information structural condition on the use of specificational sentences which does not apply to predication sentences.<sup>10</sup>

Specificational sentences most commonly have a definite DP in initial position (Higgins, 1973; Birner, 1996; Moro, 1997). Simple indefinite DPs in initial position are usually ungrammatical (15a), but are much improved when that DP contains a modifier, as with (15b) (Mikkelsen, 2005).<sup>11</sup>

(15) a. \*A president is Obama.

b. A president I hope to meet someday is Obama.

A sub-type of specificational sentence is known in the literature as a *specificational pseudocleft*. Two examples are shown as (16). Like in specificational copular sentences, the post-copular constituent is ‘more referential’ than the pre-copular pseudocleft clause. Specificational pseudoclefts have been important in the literature on copular clauses since they show connectivity effects, which I briefly discuss in section 2.2.3.

---

<sup>9</sup>Or under a theory like Akmajian (1979), the open variable expression denoted by the first DP in a specificational sentence must already be, in some sense, under discussion in order for the sentence as a whole to be pragmatically felicitous.

<sup>10</sup>The exact formulation of this information structural condition is unclear, since as noted in Mikkelsen (2005, 160), an initial DP being discourse-old does not guarantee that a specificational clause is possible.

<sup>11</sup>Similar data lead some researchers to propose that there are pragmatic requirements on specificational sentences, involving notions such as ‘contextual anchoring’ (Comorovski, 2007) or ‘rising discriminability’ (Heller, 2005).

- (16) a. What John is is a doctor.  
       b. What John is is honest.

There are two main schools of thought concerning specificational copular sentences which I briefly contrast here, and discuss in more detail in later sections. The first explains specificational sentences in terms of a semantic asymmetry, whereby the initial DP (or WH-clause) is a non-referential type  $\langle e, t \rangle$  predicate while the final DP is a referential expression, of type  $e$ . This makes possible an analysis of specificational sentences as syntactic inversions of predicational sentences, derived by raising the predicate over the subject (Moro, 1997; Adger and Ramchand, 2003; den Dikken, 2006).<sup>12,13</sup> The second school of thought analyzes specificational sentences as a type of equative, where both expressions are semantically referential (Heycock and Kroch, 1999). The argument here is that the locus of the asymmetry is information structural rather than semantic: the initial DP (or WH-clause) consists of relatively ‘old’ information (i.e. ‘ground’ in Heycock & Kroch’s terminology), and the final DP is in focus. For these theories, then, there is no derivational relation between a predicational sentence and its corresponding specificational variant.

The answer as to whether the asymmetry in specificational sentences is semantic or pragmatic in nature is not simple, especially in light of data like (17) which may be analyzed as specificational or predicational, depending on which DP is the focus, and which DP contains old information.

- (17) The winner is the loser.

Data like (17) underscore the fact that placing any given copular sentence into one versus another of Higgins’ classes often depends on the context in which the sentence is spoken, and so even if the asymmetry between the first and second DPs in specificational sentences is semantic in nature, there must be an information structural asymmetry which corresponds to the semantic asymmetry, and which serves to limit the range of contexts in which specificationals are felicitous.

Finally, although there seems to be general consensus that specificational sen-

---

<sup>12</sup>This means that what Higgins terms the ‘specificational predicate’, e.g. *Tully in The bank robber is Tully*, is rather an underlying subject.

<sup>13</sup>den Dikken (2006) reduces both specificationals and equatives to a specificational class.

tences have a fixed information structure, unlike predicational sentences, this does not always mean that the old information must precede the new information: note that specificational pseudoclefts like (18a) can be inverted, while retaining their specificational interpretation (18b) (den Dikken et al., 2000). This shows that a specificational interpretation is not inherently dependent on the ‘ground’ preceding the ‘focus’.

- (18) a. Otto Preminger was who I met.  
       b. Who I met was Otto Preminger.

This suggests that the notion of specification is best understood in terms of a fixed information-structural asymmetry between two constituents, and not in terms of any linear requirement that a less-referential or discourse-old expression (i.e. ‘ground’ or ‘topic’) precede a more-referential or discourse-new expression.<sup>14</sup>

### Equative Sentences

Equative (a.k.a. identity) sentences are most famously represented in the philosophical tradition by examples like *Cicero is Tully* or *The morning star is the evening star*. They assert that an identity relation holds between two referential expressions.<sup>15</sup> Unlike specificational sentences, truly equative sentences cannot be analyzed as syntactically inverted predications, because neither expression is functioning as a predicate. For example, in certain contexts when we say *The morning star is the evening star*, we are really stating that there are two unique definite descriptions which both point to the same referent.

Insofar as DPs may type-raise to properties (Partee, 1987), the prediction is that a sentence like *The morning star is the evening star* will also have specificational and predicational interpretations, depending on the context (cf. also discussion around 17). Although both definite DPs make singular reference in this case and an equative interpretation is most forthcoming, consider that in answer to the question *Which star is the morning star?* the response may be analyzed as a specifica-

<sup>14</sup>Percus (1997) discusses the ‘specificational character’ of clefts, and derives clefts from specificational sentences.

<sup>15</sup>Or more correctly, two expressions of the same type, since higher type equatives like *Honest is honest* do exist (Heycock and Kroch, 1999).

tional sentence. This shows that singular reference does not obviate the possibility of type-raising, and singleton sets, by extension, are not information-structurally equivalent to singular referents, assuming a correspondence between type-shifting and information structure.<sup>16</sup> Allowing DPs to freely type-raise to properties simplifies the semantics of the copula, but it also means that the surface form of a copular sentence, by itself, does not necessarily determine which of Higgins' classes it falls into.

Adger and Ramchand (2003) and Geist (2007) argue that Scottish Gaelic and Russian, respectively, do not have true equative sentences, and that sentences which appear to be equative are actually predicational. Note that even English examples like *Cicero is Tully* have predicational interpretations, as in a context where Tully is a character in a play, or where *Tully* refers to the property of *being-named-Tully* rather than referring to the actual referent.

### Identificational Sentences

Higgins distinguishes a fourth class of copular sentence, identificational sentences, which are typically used to identify names of people or things. These are usually characterized by having a deictic demonstrative or demonstrative phrase in subject position. English examples include *That place is Vancouver* (8d), *This basket is a cedar-bark basket*, or *That is John*. The first DP is referential, and the second DP is 'identificational', according to Higgins (1973) (cf. Table 2.1 above).

In English, many identificational sentences are surface-similar to specificational sentences (e.g. 8b), except that the initial DP is introduced by a demonstrative determiner. The primary discourse function of identificational sentences is to relate the names of people, places or things to their referents, rather than to restrict a contextually salient domain, as is the case with specificational sentences.

There is an interpretive overlap between identificational sentences, and both specificational and predicational sentences. First, Higgins (1973) notes that specificational sentences, as a rule, also have identificational readings. Consider that in a context where we are identifying who *the* contextually salient president is, *the president* in the sentence *The president is Obama* is not first and foremost a

---

<sup>16</sup>For example, the first DP in a specificational sentence may type shift to a property (Partee, 1987), and this correlates with its status as a discourse old, non-referential expression.

discourse-old property that is being predicated of Obama, but is instead a salient individual who Obama is being equated with. This means that a demonstrative or demonstrative phrase subject is not mandatory for an identificational reading. Specificational and identificational sentences may therefore be distinguished by the fact that while subjects of specificational sentences are generally discourse-old (and non-referential according to Higgins), subjects of identificational sentences are not necessarily discourse-old, but must be contextually salient, i.e. something that a speaker can point to. As a second interpretive overlap, identificational sentences like *This basket is a cedar-bark basket* have predicational readings: In a sorting context where we are ascribing the property of being a cedar-bark basket to a particular basket as opposed to say, the property of being a cedar-root basket, then we have a predicational reading. Other identificational sentences, like *That place is Vancouver*, appear only to have an identificational reading.

Much of the recent literature on identificational sentences has attempted to reduce them to one or another of Higgins' classes. For example, Mikkelsen (2005) assimilates identificational sentences with simple demonstrative subjects to the specificational class, while those with demonstrative phrase subjects are 'demonstrative equatives'. Heller (2005) claims that identificational sentences are a type of predicational sentence, while Birner et al. (2007) analyze identificationals as equatives.

## Summary

This section has reviewed some basic points concerning Higgins' taxonomy of copular clauses, a classification which is largely based on discourse-dependent, interpretative possibilities of DPs in subject versus complement position of a copular clause.

It is by no means clear that Higgins' taxonomy of English copular clauses cannot be further simplified. For instance, it has been claimed that specificationals may be reduced to inverted predicationals (Moro, 1997), or alternatively, to equatives (Heycock and Kroch, 1999); or that identificationals may be reduced to specificationals and equatives (Mikkelsen, 2005), or alternatively to predicationals (Heller, 2005). Revising Higgins' taxonomy depends not only on one's semantic

analysis of DPs, but also on how one characterizes information structure, and on the relationship between information structure and the semantics/syntax interface, and by whether one argues that the asymmetry in specificational copular clauses, for example, is semantic or pragmatic in nature. These are all important factors to consider when investigating these types of sentences in different languages.

I now move on to a more detailed discussion of the syntax (and compositional semantics) of copular predication, focusing on (i) the relationship between small clauses, predication sentences and specificational sentences within frameworks which argue for syntactic inversion (Moro, 1997; den Dikken, 2006); and contrasting this with (ii) frameworks which argue against syntactic inversion and for an equative analysis of specificationals (Heycock and Kroch, 1999).

## **2.2 Specificational Copular Syntax/Semantics: Predicate Raising or an Equative Head?**

The preceding discussion has focused on some basic issues concerning the semantics of predication and equation and the various types of copular clauses through which predication and equation are realized, as well as some informal discussion on information structural constraints on the distribution of copular clauses. I also included a brief overview of the debate between those who argue that the asymmetry in specificational clauses is semantic in nature, and those that argue for a pragmatic asymmetry. This section investigates this debate in more detail.

First (2.2.1), I begin by discussing similarities between non-verbal small clause predications and main clause predications in English, which have given rise to theories whereby main clause predications are derived from small clauses by raising either the subject or the predicate of the small clause over the copula (Moro, 1997). These small clauses are usually taken to be projections of a Pred-head (Bowers, 1993; den Dikken, 2006) or other functional projection, and are syntactically asymmetrical (Kayne, 1994).

Second (2.2.2), I link these theories of small clauses with theories of copular syntax which assume that there is semantic asymmetry between the two DPs in a specificational copular clause, and that there is a derivational relation between predication and specificational sentence types such that specificational sentences

are derived by raising the predicative DP over the subject and copula (a.k.a. ‘predicate raising’ or ‘syntactic inversion’ (Moro, 1997)). These theories are attractive since they offer an intuitive explanation for the semantic similarities between these two types of sentences, and are economical since, for variants of these theories which reduce equatives to predicationals (den Dikken, 2006), all predication can be reduced to a single type of small clause, and a single Pred-head.

Third (2.2.3), I discuss the theories which assume a pragmatic asymmetry between the two DPs in a specificational sentence, but which do not assume predicate raising. Heycock and Kroch (1999) argue that specificationals are semantically equative, but pragmatically asymmetrical: the first DP must be a ‘ground’, or given in the discourse, roughly speaking, while the second DP must be a ‘focus’.

Fourth (2.2.4), I discuss more recent work by Romero (2005) and Comorovski (2007) who have argued that specificationals are equative in the sense that they equate two individuals, but are nevertheless semantically asymmetrical in the sense that the specificational subject must be intensional.

This discussion is relevant to Okanagan for the following reasons: I will show that Okanagan does not have predicate raising (7.2.2, 7.3.2), which renders the inversion analysis inapplicable (Moro, 1997; den Dikken, 2006), and favors an equative analysis (Heycock and Kroch, 1999). Okanagan does not show connectivity effects for independent reasons (7.3.3), but does have DP-DP sentences with a fixed information structure and a fixed word order. I argue that the fixed information structure relies on a distinction between intensional and non-intensional DPs (Romero, 2005; Comorovski, 2007), along with linear alignment constraints on focus (7.5).

### 2.2.1 Small Clauses

This section briefly discusses small clauses in English, as a necessary background for syntactic theories of predication and equation.

English small clauses often occur in embedded contexts as complements of Exceptional Case Marking (ECM) verbs like ‘consider’ (19a). Many claim that the small clause subject *John* and the predicate *a dangerous driver* form a constituent

(Jespersen, 1940; Stowell, 1981; Moro, 1997).<sup>17</sup>

- (19) a. I consider [John a dangerous driver<sub>SC</sub>].  
b. I consider [that John is a dangerous driver<sub>CP</sub>].

Rothstein (1995, 32) notes that (19a), with an embedded small clause complement, is truth-conditionally equivalent to (19b), with an embedded CP. This illustrates the semantic connection between small clauses and copular sentences.

Embedded small clauses in English do not allow an inverse word order, as can be seen by comparing (20) and (21). Moro (1995, 112) takes this as evidence that there is a basic direction to predication in English: the subject precedes the predicate. Recall from the preceding discussion that this same, basic subject-predicate directionality is also evident in predicational copular clauses.

- (20) a. *DP Predicate*: I consider [John a dangerous driver<sub>SC</sub>].  
b. *AP Predicate*: I consider [John boring<sub>SC</sub>].  
c. *DP Predicate*: I consider [John the cause of the riot<sub>SC</sub>].  
d. *DP Predicate*: I consider [these the best pictures of Mary<sub>SC</sub>].
- (21) a. *DP Predicate*: \*I consider [a dangerous driver John <sub>SC</sub>].  
b. *AP Predicate*: \*I consider [boring John <sub>SC</sub>].  
c. *DP Predicate*: \*I consider [the cause of the riot John <sub>SC</sub>].  
d. *DP Predicate*: \*I consider [the best pictures of Mary these<sub>SC</sub>].

Note that a non-copular particle *as* may optionally occur between the small clause subject and predicate in (20), with no change in meaning.<sup>18</sup> Moro (1995) and Den Dikken (2006) claim that *as* is an optional spell-out of a Pred-head, whose function is to ‘link’ the subject and predicate.

A non-finite copula may also occur between the subject and predicate (22).<sup>19</sup>

---

<sup>17</sup>There are alternative analyses of examples like (19a). It has been argued, for example, that *John* and *a dangerous driver* do not form a constituent, but are rather separate arguments of the main clause verb *consider* (e.g. Williams (1983)), or that *John* is the argument of a complex predicate consisting of *consider* and *a dangerous driver* (Chomsky, 1975). I do not further discuss these theories of small clauses, since they are dependent on small clauses being *embedded* structures. Okanagan small clauses do not need to be embedded (cf. section 7.2).

<sup>18</sup>Though some English speakers find (20b) ungrammatical with ‘as’.

<sup>19</sup>In this case, we no longer have a ‘small clause’ but instead a ‘projection of Infl’ (Rothstein,



For cases involving the copula, unlike those with *as* or no linking element, predicate inversion is licensed if a definite DP is in predicate position (23c-d). This is similar to the pattern seen with non-embedded finite specificational copular clauses (cf. 7).

- (22) a. *DP Predicate*: I consider [John to be a dangerous driver *IP*].  
 b. *AP Predicate*: I consider [John to be boring *IP*].  
 c. *DP Predicate*: I consider [John to be the cause of the riot *IP*].  
 d. *DP Predicate*: I consider [these to be the best pictures of Mary<sub>*IP*</sub>].
- (23) a. *DP Predicate*: \*I consider [a dangerous driver to be John].  
 b. *AP Predicate*: \*I consider [boring to be John].  
 c. *DP Predicate*: I consider [the cause of the riot to be John].  
 d. *DP Predicate*: I consider [the best pictures of Mary to be these].

### 2.2.2 Predicate Raising

Stowell (1981), Pereltsvaig (2001) and others assume that the copula provides the necessary structure (i.e. T(ense) head) for the subject to raise out of its base-generated initial position within the small clause (24a). Moro (1997) extends the analysis to include DP-predicate raising as well (24b).

- (24) a. I consider [[John<sub>*i*</sub>] to be [t<sub>*i*</sub> [the cause of the riot *DP*] *SC*] *IP*].  
 (canonical ordering)  
 b. I consider [[the cause of the riot<sub>*i*</sub>] to be [[John *DP*] t<sub>*i*</sub> *SC*] *IP*].  
 (inverse ordering)

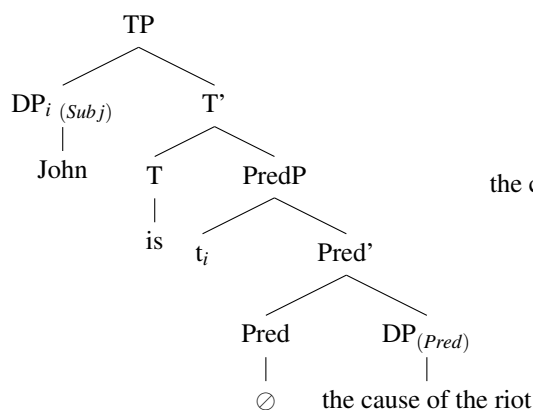
Under this analysis, DPs are unique in their ability to raise to specifier of T (23), and (21c,d) are ungrammatical because there is no copula, and thus no landing site for a raised DP predicate.

---

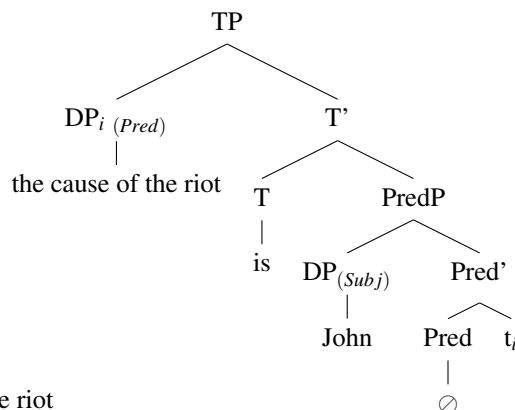
1995). Chomsky (1981) also states that small clauses differ from other clause types in that the predicate is not linked to INFL. Thus, while a small clause consists of DP XP, for example, a copular clause XP will be linked to INFL, i.e. DP INFL XP. Functional heads which are claimed to play a major role in copular predication in other languages do not do so in Okanagan, and there is no evidence that the subject is linked to the predicate via an AGR(ement) node, at least for the non-verbal predications investigated in this dissertation.

Both symmetrical (Stowell, 1981; Pereltsvaig, 2001) and asymmetrical (Moro, 1995; den Dikken, 2006) analyses of the base-generated structural relation between the small clause subject and predicate exist. Under the asymmetrical account, the small clause is projected by a functional Pred-head (Figures 2.2-2.3). Under the symmetrical account, there is no functional head intervening between subject and predicate (Figures 2.4-2.5).<sup>20</sup> Under either account, a tensed copula selects for a small clause complement. This general picture derives both predicational and specificational copular clauses from an underlying subject-initial small clause through syntactic raising of either the subject (yielding a predicational configuration) or the predicate (yielding a specificational configuration).

**Figure 2.2:** DP Subject Raising and the Asymmetrical (Pred) Account

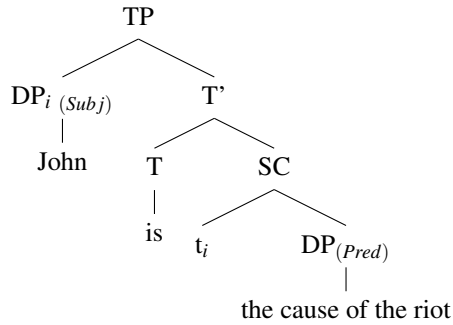


**Figure 2.3:** DP Predicate Raising and the Asymmetrical (Pred) Account

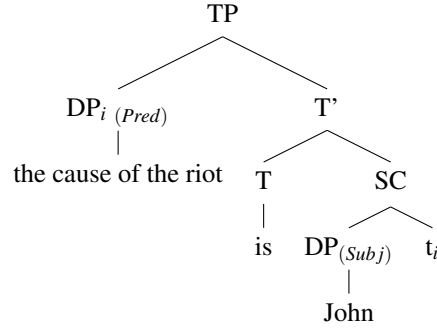


<sup>20</sup>See den Dikken (2006, ch.3) for arguments against a bare, symmetric analysis of small clauses.

**Figure 2.4:** DP Subject Raising and the Symmetrical (bare) Account



**Figure 2.5:** DP Predicate Raising and the Symmetrical (bare) Account



English small clauses without a copula may not normally occur in non-embedded contexts (25), presumably due to a tense-anchoring requirement.<sup>21</sup>

- (25) a. \*John a dangerous driver.  
b. John is a dangerous driver.

Okanagan does not allow predicate-raising (see chapter 7) in either direct predications or DP-DP structures, as evidenced by the fact that no functional head may intervene between an initial predicate and a final subject in a direct predication, and a non-subject DP can normally never precede a subject DP in a DP-DP structure.

### 2.2.3 Specificationals as Equatives

In this section, I summarize portions of Heycock and Kroch (1999), who argue for the existence of an equative head, and for a fundamental distinction between equative and predicative small clauses. They claim that the English copula is not

<sup>21</sup> Although English does not normally allow non-embedded small clauses (ia,b), they can sometimes occur in ‘informal contexts’ (Moro, 1995, 113) (ic).

- (i) a. \*[John a dangerous driver]<sub>SC</sub>.  
b. \*[Lucy the boss]<sub>SC</sub>.  
c. [John the cause of the riot]<sub>SC</sub>? I can’t believe it!  
d. \*[The cause of the riot John]<sub>SC</sub>? I can’t believe it!

Inversions of non-embedded small clauses are always ungrammatical (id), presumably because the predicate must raise out of its base-generated position, but there is no landing site.

ambiguous (Partee, 1987), but is always semantically vacuous, and may select for either type of small clause. They also claim that specificational sentences are not inverse predication sentences, but are equatives with an additional pragmatic requirement that the initial DP represent old information. Their claims are directly relevant to my analysis of Okanagan: I claim that Okanagan equatives are projections of a null head, and that equative and predicative small clauses are distinct. Their argument is based on the existence of several kinds of data which pose problems for the inversion account, primarily involving specificational pseudoclefts. I present some key aspects of their analysis below.

First of all, there is a set of phenomena known in the literature on specificational pseudocleft clauses as *connectivity effects* (Higgins, 1973; Heycock and Kroch, 1999; Mikkelsen, 2005), so-called because a constituent in a higher structural position behaves as if it were in a lower position with regards to standard structural diagnostics such as binding.<sup>22</sup> I briefly illustrate connectivity effects with an example involving Condition A of binding theory, *An anaphor must be bound within its governing category* (cf. Chomsky (1981), data from Mikkelsen (2011)).

Example (26a) shows a specificational pseudocleft, in which the antecedent R-expression *Harvey* does not c-command, yet appears to bind, the anaphor *himself*. Example (26b) is a non-copular sentence in which the antecedent R-expression *Harvey* does c-command the anaphor *himself* and binds it, as expected under Binding Condition A. Example (26c) shows a topicalized phrase, in which the R-expression *Harvey* does not c-command and cannot bind the anaphor *himself*.

(26) Principle A

- a. What Harvey<sub>i</sub> did next was wash himself<sub>i</sub> thoroughly.
- b. Harvey<sub>i</sub> washed himself<sub>i</sub> thoroughly.

---

<sup>22</sup>There are four types of connectivity effects. These are: (i) binding connectivity (ii) bound variable connectivity, (iii) negative polarity item (NPI) connectivity, and (iv) opacity connectivity. There are three broad approaches to explaining connectivity effects: The ellipsis approach (den Dikken et al., 2000; Schlenker, 2003) is compatible with predicate raising analyses, while the logical form (Heycock and Kroch, 1999) and semantic approaches (Jacobson, 1994; Sharvit, 1999; Heller, 2002) do not require syntactic movement. Since Okanagan does not straightforwardly show connectivity effects, a detailed explanation of these approaches goes beyond the scope of this thesis, though I refer the reader to Mikkelsen (2011) for a concise summary of the argumentation behind these approaches.

- c. \*Before Harvey<sub>i</sub> left, Miriam washed himself<sub>i</sub> thoroughly.

The issue here is that if the antecedent in specificational pseudocleft does not c-command an expression which it binds (26a), we expect these examples to pattern like non-pseudocleft data involving non-c-commanding antecedents (26c); however the initial element behaves as if it *did* stand in a c-command relation (26b). Specificational sentences with non-pseudocleft subjects (27a) pattern with parallel sentences involving pseudocleft subjects (27b) in terms of connectivity effects, as shown for example with the following binding condition C data from Heycock and Kroch (1999).

- (27) a. \*His<sub>i</sub> claim was that John<sub>i</sub> was innocent.  
 b. \*What he<sub>i</sub> claimed was that John<sub>i</sub> was innocent.

Heycock and Kroch (1999) take the existence of connectivity effects to be problematic for an analysis of specificational pseudoclefts as inverted predications: if syntactic inversion were involved in cases like (26a), then the prediction is that they would not behave exactly like their simple sentence paraphrases (26b), but similarly to other cases in which movement has clearly occurred (26c).<sup>23</sup>

Next, Heycock & Kroch view data such as (28) to be *prima facie* evidence for a separate class of equatives. In (28a) for example, there is no sense in which one instance of *honest* is ‘more-predicative’ than the other, and neither expression is referential. In (28b) it seems clear that two referential *attitudes* are being equated with one another. Heycock and Kroch (1999) use these data in support of equation as a more general semantic phenomenon by which two expressions of the same

---

<sup>23</sup>Despite having structures which might be argued to be equivalent to English inverse pseudoclefts, connectivity cannot be tested in Okanagan because of several language-specific properties. These are as follows (cf. section 7.3.3):

- a. Specificational sentences are not permitted.
- b. There is no overt copula.
- c. 3rd person pronouns are normally null, and reflexivization is an operation on the predicate, not on an argument.
- d. Okanagan like other Salish languages (Davis, 2006, 2009) regularly violates condition C.
- e. Okanagan (and the rest of Salish) lacks WH-relative clauses, and so Okanagan has nothing comparable to WH-pseudoclefts in English.

type are linked together.

- (28) a. Honest is honest.  
b. Your attitude towards Jones is my attitude towards Davies.

A further argument that they cite in favor of a separate class of equatives comes from data pairs like (29a,b). For (29a), the final constituent *honest* is specifying the variable in the initial pseudocleft clause *what John is*. Assuming *honest* is type  $\langle e, t \rangle$ , this means that the pseudocleft clause must be type  $\langle \langle e, t \rangle, t \rangle$  under an inversion analysis, where the predicate constituent is of a higher type than the subject. But it is not necessarily the case that a pseudocleft clause must be of this type, since in (29b), *what John is* must be of type  $\langle e, t \rangle$ . If however (29a) is analyzed as an equative sentence where both constituents are of type  $\langle e, t \rangle$ , and (29b) as a predication sentence with a subject of type  $e$ , then the pseudo-cleft clause can always be of type  $\langle e, t \rangle$ .

- (29) a. What John is is honest.  
b. I am what John is.

Next, consider that (30-32) are grammatical as equations between two expressions of type  $\langle e, t \rangle$ , according to Heycock and Kroch (1999). Examples (33a, 34a) are grammatical as predication sentences, while (33b, 34b) are not since 'it is not possible to treat any constituent appearing in [subject] position as predicated of a postcopular argument.' (Heycock and Kroch, 1999, 380). Basically, an inversion analysis must explain why inversion is possible for (30b-32b), but not (33b, 34b).

- (30) a. Proud of his daughters is what he is  
b. What he is is proud of his daughters.
- (31) a. Honest is the one thing that I have always wanted a man to be.  
b. The one thing that I have always wanted a man to be is honest.
- (32) a. Honest is what I want a man to be.  
b. What I want a man to be is honest.

- (33) a. John is the one thing that I have always wanted a man to be. (that is, he's honest)  
       b. \*The one thing that I have always wanted a man to be is John.
- (34) a. John is what I want a man to be.  
       b. \*What I want a man to be is John.

According to Heycock and Kroch (1999), the fact that (33b, 34b) are ungrammatical fits in with a more general picture that predicates cannot normally precede their subjects (35a-c). (35d) is grammatical precisely because the initial definite DP is not a predicate, but is referential.

- (35) a. \*A doctor is John.  
       b. \*Boss is Mary.  
       c. \*Proud of his daughters is John.  
       d. The best candidate for the job is John.

Given these empirical facts, Heycock and Kroch (1999, 382) argue for two separate types of small clauses, both involving the same semantically vacuous copula. There is no null predication head for predication small clauses, while there *is* a null equative head for the equative cases. I advance a similar analysis for Okanagan in chapter 7.

To conclude this section, Heycock and Kroch (1999) explain that there is a pragmatic condition on specificational sentences (i.e. they have a fixed information structure (Prince, 1978)), such that the initial DP or pseudocleft clause must form a '[back]ground' and the final DP must form a 'focus' (Vallduví, 1992), essentially a version of the structured meaning approach to focus (von Stechow, 1990; Krifka, 1991). Okanagan DP-DP structures also show a fixed information structure, similar to inverse specificational pseudoclefts in English (e.g. 18a), where the focused constituent always precedes the non-focused constituent.

#### **2.2.4 Directly Referential versus Non-Rigid DPs: An Intensional Asymmetry**

There have been alternative, semantic approaches towards explaining the information structural asymmetry in specificational sentences which trace the asymmetry

to intensionality rather than predicativity, most notably Romero (2005) and Comorovski (2007). The general idea rests on the following distinction.

Demonstratives (Kaplan, 1977) and proper names (Kripke, 1982) are directly referential; they denote entities, and their intensions are rigid individual concepts (i.e. they are constant functions, and denote the same individual in every world). As such, and assuming that type-shifting applies only as a last resort (Partee, 1987), demonstratives and proper names are best treated as expressions of type *e*. In contrast, definite DPs denote non-rigid individual concepts (i.e. they may denote different individuals in different worlds). In order to capture this non-rigidity, definite DPs may be understood as optionally type-shifting to type  $\langle s, e \rangle$ . Romero (2005) and Comorovski (2007) argue for an intensional type  $\langle s, e \rangle$  analysis of the first DP in a specificational copular clause (linearly speaking), and for a type *e* analysis of the second DP, with Romero’s claim resting on an analysis of the first DP as a concealed question. Strictly speaking, specificationals are semantically asymmetrical equatives under this analysis, with the equative head mapping an individual’s intension to its extension. Romero (2005) gives the following semantics for the specificational (equative) copula:<sup>24</sup>

$$(36) \quad [[be]] = \lambda x_e \lambda \underline{y}_{\langle s, e \rangle} \lambda w_s. \underline{y}(w) = x$$

The copula in (36) takes an extensional individual *x* (the second DP in a specificational sentence) and an intensional individual  $\underline{y}$  (the first DP) as arguments, and yields a proposition that is true in a world *w* if and only if  $\underline{y}$  applied to *w* is identical to *x*. This approach has the benefit of not positing multiple levels of LF, which is necessary under Heycock and Kroch’s analysis of connectivity effects, but on the other hand, does not appear to reflect the fixed information structure of specificationals.<sup>25</sup>

I claim that a semantics similar to (36) comprises a part of the Okanagan equative copula, with the exception that the arguments are reversed: the intensional DP forms the first argument of the copula (i.e. the second DP, linearly speaking), and

<sup>24</sup>The underlining on the *y* argument indicates intensionality.

<sup>25</sup>Neither does it account for connectivity effects, but since Okanagan does not show connectivity effects, I do not concern myself further with this issue.



the extensional DP the second argument (i.e. the first DP) (cf. section 7.5).<sup>26,27</sup>

### 2.2.5 Summary

This section has focused on theories of specificational copular sentences. There is a debate in the field over whether there is a derivational, syntactic relationship between semantically-asymmetrical predication and specificational clauses (Moro, 1997; den Dikken, 2006), or whether specificationals are pragmatically-asymmetrical equative structures (Heycock and Kroch, 1999; Romero, 2005). Much of the debate centers around specificational pseudocleft data, though there are also questions as to how best to account for the fixed information structure of specificational copular sentences.

I now give a general discussion of my assumptions concerning focus and information structure, followed by a brief discussion of theories of clefts, which I argue to be equative in Okanagan.

## 2.3 Focus and Information Structure

This section lays out aspects of theories of focus and information structure which are crucial for my analysis of Okanagan equatives. The discussion is not intended to be a comprehensive introduction to information theory or its application to Okanagan: this is an area for future work.

In section 2.3.1, I briefly explain the alternatives approach to focus (Rooth, 1985, 1992), and the syntactic realization of focus as F-marking (Jackendoff, 1972; Selkirk, 1995). In section 2.3.2, I discuss how a focused constituent aligns with the edge of a prosodic phrase in Thompson River Salish (Koch, 2008a), a Northern Interior Salish language spoken immediately adjacent to the Okanagan language area. The relevance of this discussion becomes clear in chapter 7, where I claim

---

<sup>26</sup>Similar to ‘inverse’ specificational pseudoclefts in English (den Dikken et al., 2000). See discussion in section 2.1.2.

<sup>27</sup>The base semantic type of Okanagan DPs which are headed by the determiner *i?* is of type  $\langle s, e \rangle$ , yet they are of type *e* when the world variable is existentially bound (cf. section 5.3). The base semantic type of Okanagan proper names is a type  $\langle e, t \rangle$ , and these lower to type *e* in argument positions and in equative contexts (either as a result of a null referential determiner or N-to-D raising (Longobardi, 1994)) (cf. section 4.6.2). Simple demonstratives are uniformly of type *e*, yet allow intensional readings when they are adjoined to an *i?* DP.

that focus is integral to the meaning of the equative copula in Okanagan, and that an F-marked DP in an equative aligns to the left edge.

### 2.3.1 Focus Alternatives and F-marking

I now briefly introduce the alternatives-based approach (Rooth, 1985, 1992) which I adopt for this dissertation. This approach assumes that expressions have two different denotations: an ordinary semantic interpretation and a focus semantic interpretation. In answer to a question such as (37), the constituent *John* in (38a) is syntactically marked as a focus by a feature ‘F’ (Jackendoff, 1972; Selkirk, 1995). (38b) shows the ordinary semantic meaning of the sentence, and (38c) shows the focus semantic meaning under an alternatives representation. By focusing *John* in (38a), one invokes all of the contextually relevant alternatives to *John* (i.e. the ‘contrast set’), as represented in (38c). The focused constituent *John* in (38a) is phonologically realized with a prominent pitch accent in English.

(37) Which one of these people passed the exam?

(38) a. [**John**]<sub>F</sub> passed the exam.

b. Meaning: PASSED THE EXAM(JOHN)

c. Alternatives:  $\{\text{PASSED THE EXAM}(x) \mid x \in D_e\}$   
 $= \{\text{PASSED THE EXAM}(\text{JOHN}),$   
 $\text{PASSED THE EXAM}(\text{PETE}),$   
 $\text{PASSED THE EXAM}(\text{SAM}), \dots\}$

The set of alternatives forms a partially ordered scale of propositions, where stronger propositions (i.e. those more likely to be true) are ranked higher. Alternative propositions that are not asserted are generally ruled out by scalar implicature (Rooth, 1992). In the case of (38a), when the speaker asserts that *John passed the exam* (38b) with a pitch accent on *John*, all of the non-asserted alternatives to *John passed the exam* (e.g. *Pete passed the exam*, *Sam passed the exam*, etc.) are then normally ruled out by scalar implicature.<sup>28</sup>

<sup>28</sup>The implicature can be cancelled. In answer to *Which of these people passed the exam?*, one can answer [*John*]<sub>F</sub> *passed the exam*, and [*Pete*]<sub>F</sub> *passed the exam too*.

In English, the uniqueness/exhaustivity implicature associated with focus can be strengthened in several ways, such as by the addition of a focus-sensitive exclusive particle like *only* (39a), or by means of a cleft (39b). In (39a), the addition of *only* entails that the non-asserted alternative propositions in (38c) are false. In cleft structures like (39b), the exhaustivity may arguably be derived from the semantics of a covert definite determiner (cf. Percus (1997), section 2.4 below).

- (39) a. Only **John** passed the exam (# and Pete did too).  
 b. It is **John** who passed the exam (# and Pete did too).

As I show in chapter 7, Okanagan equatives have a fixed information structure, similar in some ways to English clefts. I claim that the null equative head in Okanagan lexically assigns the syntactic feature ‘F’ to its second (leftmost) argument, which is interpretable as ‘focus’ at the interfaces (Jackendoff, 1972; Selkirk, 1995). This is illustrated in (40a).

- (40) a.  $[\text{ixi?}]_{DP}^F = [\text{i? } \text{pəptwínax}^w]_{DP}$ .  
           DEM           = DET old.lady  
           SHE is the old lady.  
 b.  $*[\text{i? } \text{pəptwínax}^w]_{DP} = [\text{ixi?}]_{DP}^F$ .  
           DET old.lady           = DEM  
           The old lady is HER.

At present, there is no general algorithm for assigning F in contexts *without* an equative head, either by movement to a prosodic edge or by assignment of pitch accent. However, when F *is* assigned by the equative head to its second argument, a prosodic-alignment constraint (which I discuss in the next section) assures focus occurs leftmost. Together with selectional restrictions on the equative head, these derive the absence of specificational sentences in Okanagan (40b). The initial F-marked constituent in an Okanagan equative may, but does not necessarily, receive an exhaustive interpretation (cf. section 7.4.1) due to a maximality implicature associated with the determiner *i?* in the second DP of an equative DP-DP structure (cf. section 5.3.3). This essentially follows the analysis of Percus (1997) for English clefts.

Note that while much of the literature on information structure makes a distinction between two types of focus, contrastive and (new-)information focus (cf. for example Szabolcsi (1981), Rochemont (1986), Kiss (1998), Selkirk (2007)), I set this distinction aside, since it plays no part in the analysis of equatives given here.<sup>29</sup> Such a distinction will likely be relevant for a more comprehensive account of information structure in Okanagan, but this work remains to be done. Here, I utilize only those aspects of the theory which are necessary to account for the information structure of equative sentences in Okanagan.

### 2.3.2 Prosodic Alignment and Focused Constituents

In this section, I outline a prosodic-alignment theory of focus realization (Koch, 2008a; Féry, 2013) which generalizes the prosodic realization of focus to languages which lack a stress-focus correspondence (e.g. Thompson Salish). Previous work on English and other largely European languages had assumed the universality of a stress-focus correspondence, given here in the form assumed by Reinhart (1995):

(41) **Stress-Focus Correspondence Principle:**

The focus of a clause is a(ny) constituent containing the main stress of the intonational phrase, as determined by the stress rule (Reinhart, 1995, 62).

However, more recent cross-linguistic work, including work on Thompson River Salish (Koch, 2008a), has undermined the universality of the stress-focus correspondence principle. I briefly demonstrate how stress and focus correspond in English, and summarize Koch's claim that in Thompson, focus aligns to the edge of a prosodic phrase (cf. Féry (2013)).

In English and other stress languages, focus aligns with stress, as a prosodic head. In a case involving default CP focus (e.g. 42, where the entire sentence is a new-information), the subject is parsed into one prosodic phrase, and the VP into a separate prosodic phrase (Chomsky, 1971; Jackendoff, 1972; Selkirk, 1995; Selkirk and Kratzer, 2007). Each prosodic phrase has a pitch accent (marked by 'X'), and in English, the right-most prosodic head in a prosodic phrase bears a pitch accent (hence the verb 'saw' does not bear a pitch accent). The intonational phrase

---

<sup>29</sup>Koch (2008) similarly ignores the distinction between new information and contrastive focus in his analysis of information structure in Thompson Salish.

carries the nuclear pitch accent, which by default in English, is right-headed. The generalization is that by default, the rightmost lexical stress is prominent.

- [illegible]

In English clefts, however, the leftmost lexical stress is most prominent. Given material (indicated by G) is not parsed in a prosodic phrase (Selkirk and Kratzer, 2007) during an initial step 1, but is parsed recursively into a prosodic phrase during step 2, under the assumption that *all* material must be parsed before prosodic phrases are parsed into an intonation phrase. Since the leftmost lexical stress is the only pitch accent in the intonation phrase, it is also the most prominent. The observation here is that through a process of destressing given material, nuclear pitch accent can associate with a prosodic head which is not rightmost, and that in sentences which involve narrow focus (e.g. clefts), nuclear-pitch accent will associate with the narrowly focused constituent.

- (43) (  $X$  ) intonation-phrase  
 ( (  $X$  ) ) prosodic-phrase, step 2  
 (  $X$  ) prosodic-phrase, step 1  
 It was [Monique<sub>FOC</sub>] [that Jóhnn sáw<sub>G</sub>]. Koch (2008a, 120, ex.5)

Koch (2008a) claims that for languages like Thompson River Salish, focus aligns with prosodic edges, rather than prosodic heads. Since cleft foci are not intonationally prominent in Thompson, listeners must rely on other means to recover focus, and as a general rule, the focused element occurs left-most in Thompson (more specifically, focus associates with the leftmost lexical item, excluding any functional heads). This is shown to be the case for both nominal predicate constructions (NPCs) and clefts. In Thompson, nuclear stress falls on the right-most pitch accent, but focus is aligned to the left (44). Koch captures this generalization with (45).

- (44) (X) ( X ) intonation-phrase  
 (X) ( X ) ( X ) prosodic-phrase  
 Té?e. [q<sup>w</sup>ú? <sub>FOC</sub>] ʔu? e s-ʔúq<sup>w</sup>eʔ-kt.  
 NEG water just DET NOM-drink-1PL.POSS  
 No, we'll just drink [water <sub>FOC</sub>]. (Thompson, Koch (2008a, 251, ex.15))
- (45) FOCUS LEFT: Align the left edge of the focus-marked p(rosodic)-phrase with the left edge of an intonational phrase.

In contrast to Thompson, which exhibits left-edge alignment in both NPCs (44) and other predicative contexts, as well as in clefts, Okanagan only shows such effects for clefts and other simple equatives (section 7.5.2). This implies that in Thompson, the feature F is assigned freely, whereas in Okanagan it is restricted to equative contexts. The reasons for this difference are unclear, and await more detailed investigation of information structure, and its prosodic reflexes, in Okanagan.<sup>30</sup>

## 2.4 Clefts

This section discusses several relevant syntactic and semantic aspects of theories of English clefts which directly inform my analysis of Okanagan clefts as equative structures (chapter 8).<sup>31</sup> An example of an English cleft, from Reeve (2007), is given in (46):

- (46) It was **the snake** that the mongoose caught.

This sentence may be informally characterized as consisting of three parts (excepting the copula): an initial clefting pronoun *it*; a DP in focus; and a residue CP (a.k.a. remnant), as represented in (47):

<sup>30</sup>There has been little intonational work done on Okanagan, excepting Barthaier (2004) who conducts an acoustic study of several Okanagan narratives (A. Mattina and DeSautel 2002). His main finding is that intonation phrases do exist in Okanagan, and that they correspond to syntactic phrasing.

<sup>31</sup>The relationship between ‘clefts’-proper (e.g. 46) and ‘pseudoclefts’, examples of which were discussed in section 2.2.3, is still a matter of some contention. The two types of structures are not necessarily derivationally related, although Percus (1997) does effectively derive a cleft from a th-pseudocleft (e.g. ‘The one that the mongoose caught was the snake’).

(47) [It *cleft-pronoun*] was [**the snake** *DP-focus*] [that the mongoose caught *residue*].

First, I give a brief outline of the ‘extraposition-from-subject’ theory of clefts which I adopt in this dissertation, focusing on the versions proposed by Percus (1997) and Hedberg (2000), who treat the introductory clefting pronoun (i.e. *it* in English) as forming an underlying constituent with the residue clause.<sup>32</sup> Second, I discuss the semantics and pragmatics of English clefts, focusing on two properties: the presupposition of existence carried by the residue clause, and the presupposition that the DP in focus position be interpreted exhaustively.

#### 2.4.1 ‘Extraposition from Subject’ Analyses of Clefts

There are two main versions of the extraposition from subject analysis of English clefts (Akmajian, 1970; Schachter, 1973; Emonds, 1976; Gundel, 1977; Wirth, 1978; Percus, 1997), both of which are traceable to Jespersen (1927). For the first version (48), the cleft clause originates in the subject position of a WH-pseudocleft, then the CP is extraposed and *it* is inserted. For the second version (49), the cleft clause originates as part of a definite description in the subject position of a specificational copular clause (a.k.a. ‘th-pseudocleft’) (Percus, 1997). The CP is then extraposed and the definite description remnant *the one* is spelled-out as *it*.

(48) a. [What the mongoose caught *CP*] was [the snake *DPfocus*]. (Base structure)

b. was [the snake *DPfocus*] [that the mongoose caught *CP*]. (Extraposition)

c. It was [the snake *DPfocus*] [that the mongoose caught *CP*]. (‘It’ insertion)

(49) Percus (1997)

a. [The  $\emptyset$  [that you saw *CP<sub>i</sub>*]][is the deer]. (Base structure)

b. [The  $\emptyset$  *t<sub>i</sub>*][is the deer]][that you saw *i*]. (Extraposition)

---

<sup>32</sup>There are many other analyses of English clefts available, for example the so-called ‘expletive’ analysis, which has its roots in Jespersen (1937). Here, the initial *it* is neither a semantically interpreted pronoun nor the head of a definite description. The focused DP is base generated in its surface position, and the cleft clause is a complement of the focused DP (Chomsky, 1977; Halvorsen, 1978; Delahunty, 1982; Rochemont, 1986; Heggie, 1993; Kiss, 1998, 1999). Because I do not adopt any of these theories for Okanagan, I do not discuss them further. See Reeve (2007) for a concise summary of several of the more major theoretical camps.

- c. It is the deer that you saw. (Spellout of *the* as *it*)

A treatment similar to Percus (1997) (50) is advanced by Hedberg (2000), differing primarily in the sense that the definite determiner selects directly for a CP, rather than a null NP (49), and the CP is ‘lowered’ to adjoin to the focus DP.

(50) Hedberg (2000)

- a. [The [that you saw  $t_i$ ][is the [deer  $_{NP}$ ]]. (Base structure)  
 b. [The  $t_i$ ][is the [deer [that you saw  $t_i$ ] $_{NP}$ ]]. (CP Lowering)  
 c. It is the deer that you saw. (Spellout of *the* as *it*)

Crucially, for both Percus (1997) and Hedberg (2000) cleft residues are discontinuous definite descriptions. Under these analyses, the semantics of clefts follows directly from the semantics of the definite determiner.

#### 2.4.2 Cleft Semantics: Exhaustivity Entailments and Existence Presuppositions

English clefts presuppose exhaustivity of the DP in focus position (Percus, 1997), and the cleft residue carries a presupposition of existence (Percus, 1997; Kiss, 1998; Hedberg, 2000). Take again our cleft example (46), shown below as (51a), with paraphrases of the exhaustivity presupposition (51b) and existence presupposition (51c).

- (51) a. It was **the snake** that the mongoose caught.  
 b. Exhaustivity Presupposition: The mongoose caught *only* one thing.  
 c. Existence Presupposition: The mongoose caught something.

The fact that exhaustivity is presupposed comes from general agreement among English speakers that sentences like (52a,b) are unacceptable. If it were not a presupposition of the cleft in (51a) that the mongoose caught *only* one thing, then it should be possible to assert that the mongoose also caught other individuals, but this is not the case. Exhaustivity appears to be a presupposition, rather than



entailment, since (51b) survives under negation, as illustrated by (52c).<sup>33</sup>

- (52) a. #It was the snake that the mongoose caught, and it was the rabbit that the mongoose caught too.
- b. ?It was the snake that the mongoose caught, and the mongoose caught a rabbit too.
- c. It wasn't the snake that the mongoose caught.

The presupposition of existence carried by the residue clause is clearly observable by the fact that in an out-of-the-blue context (53a), clefts are unacceptable in English (53b), as well as by the fact that under negation (54), the presupposition that the mongoose caught something survives.

- (53) a. Context: The speaker walks into the room and tells the addressee what he saw at the zoo today.
- b. #It was the snake that the mongoose caught.
- (54) It wasn't the snake that the mongoose caught.

Percus (1997, 339-340) formalizes the exhaustivity and existence presuppositions similarly to (55):

- (55) a. Exhaustivity Presupposition
- It is  $[\alpha]_{FOC}$  that has the property  $\Pi$*
- entails  $\forall x[\Pi(x) \rightarrow x = \alpha]$  (only  $\alpha$  has the property  $\Pi$ )*

---

<sup>33</sup>Other data seem to indicate that exhaustivity is an entailment rather than a presupposition in English clefts (Lisa Matthewson, p.c.). In (i) below (especially (ib)), any presupposition that the mongoose caught only one thing does not survive negation:

- (i) a. It wasn't the snake that the mongoose caught, it was the rabbits.
- b. It wasn't the snake that the mongoose caught, it was a rabbit and a mouse.

The presupposition account could nevertheless be salvaged for (51) by instead assuming that the presupposition is that the mongoose caught *only* one maximal singular or plural individual: for (ia), *the rabbits* denotes the plural sum of all the contextually salient rabbits, and for (ib) *a rabbit and a mouse* denotes the sum of some pair consisting of a rabbit and a mouse. In any case, it is not crucial for my analysis of Okanagan whether exhaustivity in English clefts is a presupposition or an entailment, so I retain Percus' original presupposition analysis.

b. Existence Presupposition

In a cleft of the form *It is* [ $\alpha$ ]<sub>FOC</sub> *that has the property*  $\Pi$ ,  
there is a presupposition that  $\exists x\Pi(x)$   
(there exists some individual that has the property  $\Pi$ ).

By treating the residue clause as a discontinuous definite description (49-50), Percus and Hedberg are able to align the semantics of the definite determiner *the* with the semantics of clefts. In other words, the English determiner *the* is commonly assumed to presuppose the existence of a referent, and presuppose the uniqueness and/or maximality of that referent (Heim, 2011). The maximality presupposition of a definite DP in an specificational/equative environment, such as in Percus' base structure (56, cf. 49a) will lead to an exhaustivity presupposition for the focused DP.<sup>34</sup>

(56) [The  $\odot$  [that you saw  $_{CP_i}$ ]][is the deer]. (Base Structure)

### 2.4.3 Summary

For English, the evidence in favor of any particular analysis of clefts is subtle. For the purposes of this thesis, I will argue that clefts in Okanagan (and DP-DP structures), broadly support theories that (i) analyze the cleft residue as a discontinuous constituent with the cleft pronoun, and (ii) align the semantics of clefts with the semantics of determiners (Percus, 1997; Hedberg, 2000).

Point (i) is supported by evidence that the Okanagan clefting demonstrative *ixi?* forms an underlying constituent with the residue clause (8.5.2), and point (ii) by the fact that Okanagan clefts lack any presupposition of existence or exhaustivity, though they do carry an exhaustivity implicature (8.6.2) which I claim is linked to the maximality implicature of the determiner *i?* (5.3).

The possibility of extending a Percus/Hedberg type analysis of clefts to Salish languages is not without precedent: Shank (2003) discusses the option in some detail with regards to clefts in Northern Straits Salish, and Koch (2008a, 2009)

---

<sup>34</sup>Whether the initial DP in (56) is a semantic predicate, or semantically referential (Heycock and Kroch, 1999) (cf. section 2.2.3) does not affect the basic point that the focused DP will receive an exhaustive interpretation since as a predicate, a definite DP will denote a singleton set.

for Thompson River Salish. Both end up rejecting this analysis, due to the fact that residues appear to be bare CPs in these languages, rather than DPs, and as such it is not straightforwardly possible to link the semantics of clefts with determiners.<sup>35</sup> For Okanagan, residues may be analyzed as DPs (cf. section 8.4), and so a Percus-style analysis is applicable. More specifically, since Okanagan residues may contain overt NP heads, Okanagan supports Percus (1997) over Hedberg (2000) (compare 49a and 50a), who in principle allows for this possibility.

## 2.5 Chapter Summary

This chapter has focused on four major theoretical areas: the semantic distinction between predication and equation and Higgins' (1973) taxonomy of copular clauses (2.1); the syntactic and semantic relationship between predication and specificational sentences and evidence for a separate class of equatives (2.2); focus and information structure (2.3); and syntactic and semantic theories of clefts (2.4). Each of these areas provide useful tools for understanding the Okanagan data, to be discussed in the following chapters.

---

<sup>35</sup>Though see discussion in chapter 9 where I suggest that for Salish languages with CP cleft residues, the copula is the spell-out of a determiner which selects only for a CP (Hedberg, 2000). Under this analysis, all Salish clefts may potentially be analyzable as equative.

## **Chapter 3**

# **Background in Okanagan Grammar**

This chapter presents some basic aspects of Okanagan grammar, including phonology, pronominal inflection, and brief notes on transitivity and the tense and aspectual systems. Since this chapter is primarily meant as a terminological and paradigmatic reference tool for the reader, I limit the amount of data I give during my brief discussion on pronominal inflection, transitivity and aspect. I do however dedicate relatively more space in this chapter to discussing word order, since this is particularly important for an understanding of subsequent chapters, and appears to exhibit some dialectal differences.

### **3.1 Phonology**

The following tables represent the consonant (Table 3.1) and vowel (Table 3.2) inventories of Okanagan. The phonemic symbols are written in a standard Americanist orthography.

**Table 3.1:** Okanagan Consonant Phonemes

|                | labial | alveolar | alveo-palatal | lateral | palatal | velar | labio-velar     | uvular | labio-uvular    | pharyngeal | labio-pharyngeal | glottal |
|----------------|--------|----------|---------------|---------|---------|-------|-----------------|--------|-----------------|------------|------------------|---------|
| stop/affricate | p      | t        |               |         | č       | k     | k <sup>w</sup>  | q      | q <sup>w</sup>  |            |                  |         |
| ejective       | p̰     | t̰       | c̰            | χ̰      |         | k̰    | k̰ <sup>w</sup> | q̰     | q̰ <sup>w</sup> |            |                  |         |
| fricative      |        | s        |               | ʃ       |         | x     | x <sup>w</sup>  | χ      | χ <sup>w</sup>  |            |                  |         |
| resonant       | m      | n        | r             | l       | y       | ɣ     | w               |        |                 | ʕ          | ʕ <sup>w</sup>   | h       |
| glottalized    | m̰     | n̰       | r̰            | l̰      | y̰      |       | w̰              |        |                 | ʕ̰         | ʕ̰ <sup>w</sup>  | ʔ       |

**Table 3.2:** Okanagan Vowel Phonemes

|      | front | central | back |
|------|-------|---------|------|
| high | i     |         | u    |
| mid  |       | (ə)     |      |
| low  |       | a       |      |

Concerning vowels, schwa is not a full vowel (i.e. it cannot carry stress except for in a few scattered loan words), and so I include it in parentheses. Also, surface [e] and [o] are possible in the context of a post-velar consonant, as documented in A. Mattina (1973, 10-11). These are underlyingly /i/ and /u/, respectively. It is also worth mentioning that the Okanagan orthography deviates from the standard Americanist writing system in the following way: since there is no glottalized /č̰/ phoneme in Okanagan, and neither is there an alveo-palatal unglottalized /c/, the Okanagan orthography uses ‘c’ for /č̰/.

For an in-depth discussion of general phonology and (morpho-)phonological processes in Okanagan, I direct the reader to Watkins (1970) (Northern Okanagan) and A. Mattina (1973) (for Colville). Additionally, there are studies focus-

ing on pharyngeal movement (A. Mattina 1979), and sandhi effects and morpho-phonemics (Hébert (1978) and A. Mattina (2000)). For discussion of Upper Nicola phonology, see Pattison (1978). In this dissertation, I add footnotes concerning specific morpho-phonological processes when relevant to the discussion, but otherwise have little to say about the phonology.

### 3.2 Inflection: Pronominal, Valency, and Tense-Aspect

Here I present some important aspects of Okanagan inflectional morphology, including pronominal paradigms, morphemes related to (in)transitivity, and a few brief notes on tense and aspect. The purpose here is to provide the reader with some basic background in these areas, which will aid in comprehending the overall structure of the examples I cite in this dissertation. Since all three of these areas have received attention in the literature, I will for the most part direct the interested reader to other sources for more information.

First, I will give a brief overview of the pronominal system (cf. A. Mattina (1982) and N. Mattina (1996b, 36) for more detailed descriptions). I give the paradigms in the following tables, followed by some discussion and data, with relevant morphemes highlighted in bold type.

**Table 3.3:** Intransitive Paradigms

|      | Paradigm 1       | Paradigm 2 |
|------|------------------|------------|
|      | ABSOLUTIVE       | POSSESSIVE |
| 1 SG | kn               | i(n)-      |
| 2 SG | k <sup>w</sup>   | a(n)-      |
| 3 SG | ∅                | -s         |
| 1 PL | k <sup>w</sup> u | -tt        |
| 2 PL | p                | -mp        |
| 3 PL | -lx              | -slx       |

**Table 3.4:** Transitive Paradigms

|      | Paradigm 1           |                      | Paradigm 2              |                     |
|------|----------------------|----------------------|-------------------------|---------------------|
|      | ABSOLUTIVE<br>OBJECT | POSSESSOR<br>SUBJECT | ACCUSATIVE<br>OBJECT    | ERGATIVE<br>SUBJECT |
| 1 SG | k <sup>w</sup> u     | i(n)-                | k <sup>w</sup> u        | -(i)n               |
| 2 SG | k <sup>w</sup>       | a(n)-                | -s,-m                   | -(i)x <sup>w</sup>  |
| 3 SG | ∅                    | -s                   | -∅                      | -(i)s               |
| 1 PL | k <sup>w</sup> u     | -tt                  | k <sup>w</sup> u ... -m | -(i)m,-t            |
| 2 PL | p                    | -mp                  | -ɬ(ul)m                 | -(i)p               |
| 3 PL | ∅                    | -slx                 | ∅ ... -lx               | -(i)slx             |

**Table 3.5:** Independent Pronouns

|      | INDEPENDENT |
|------|-------------|
| 1 SG | incá        |
| 2 SG | anwí        |
| 3 SG | cniɬc       |
| 1 PL | mnímɬtət    |
| 2 PL | mnímɬtəmp   |
| 3 PL | mnímɬtsəlx  |

Okanagan may be characterized, roughly, as a ‘split-ergative’ language in terms of its pronominal system: there is a partial paradigmatic overlap between absolutive subjects in the intransitive paradigms (Paradigm 1, Table 3.3) and absolutive objects in nominalized possessor structures, which are syntactically transitive (Paradigm 1, Table 3.4). Thus the second person singular proclitic *k<sup>w</sup>* functions as a subject marker in intransitive contexts (1a), and as an object marker in syntactically transitive structures with possessor subjects (1b).

- (1) a. **k<sup>w</sup>**            ʔaʔ-ncút.  
                          2SG.ABS laugh-REFLEX  
                          You laughed.
- b. **k<sup>w</sup>**            i[n]-s-kʔqíx<sup>w</sup>-əm.  
                          2SG.ABS 1SG.POSS-NOM-protect-MID  
                          I am protecting you.

Primarily accusative object suffixes are used in the ergative paradigm (2a) (Paradigm 2, Table 3.4), with 1st person objects being a notable exception (2b).

- (2) a. Norman cəḿ púl-st-əm-s.  
                          Norman EPIS beat-CAUS-2SG.ACC-3SG.ERG  
                          Norman will punish you.
- b. **k<sup>w</sup>u**            cún-[n]t-x<sup>w</sup>            ʔaʔ            nis            Ivan.  
                          1SG.ABS tell-DIR-2SG.ERG COMP leave Ivan  
                          You told me when Ivan left.

The distribution of pronominal morphology rests on a distinction between ‘formal’ (i.e. morphological) transitivity, semantic transitivity, and syntactic transitivity. Constructions which use the possessor subject pronominal paradigm (e.g. 1b, cf. Paradigm 1, Table 3.4) are formally intransitive but semantically and syntactically transitive, while those with ergative morphology (e.g. 2, cf. Paradigm 2, Table 3.4) are formally, semantically, and syntactically transitive. Constructions which involve predicates that are lexical, underived intransitives (e.g. adjectival predicates as in 3a) are formally, semantically, and syntactically intransitive. Predicates which are formally intransitivized by reflexive morphology (e.g. 1a) or by the middle suffix -əm (e.g. 3b) (and do not involve possessor subjects), or intransitivizer -(aʔ)x (e.g. 3c) are both formally and syntactically intransitive, but semantically transitive.<sup>1</sup>

<sup>1</sup>For formal intransitives like (3b,c), the predicates may select for oblique-marked quasi-objects, hence they are semantically transitive. I discuss these at length below for example 6 and in chapter 4.



- (3) a. kn            ʔilx<sup>w</sup>t.  
           1SG.ABS hungry  
           I am hungry.
- b. kn            ʔaws-píx-**ə**m.  
           1SG.ABS go-hunt-MID  
           I went hunting.
- c. kn            s-c-k<sup>w</sup>ul-**x**.  
           1SG.ABS NOM-CUST-work-INTR  
           I am working.

Formal transitives take ergative subjects, and contain one of several transitivizers, including *-nt-* ‘directive’ (4a), *-st-* ‘causative’ (4b), *-t-* ‘possessional applicative’ (4c), and *-x(i)t-* ‘benefactive applicative’ (4d) (A. Mattina (1982) and N. Mattina (1996b)).<sup>2</sup> The transitivizer morphemes in (4) are highlighted in bold type.

- (4) a. iʔ    k<sup>w</sup>ul-ncút-[t]n            c-n-q<sup>w</sup>n-mi[n]-**nt**-s.  
           DET make-REFLEX-INSTR CUST-n-pity-MIN-DIR-3SG.ERG  
           God bless you. (said after one sneezes)  
           Literally: The creator take pity on you.
- b. ʔ-x<sup>w</sup>uy-**st**-s                    iʔ    tum-s.  
           return-go-CAUS-3SG.ERG DET mother-3SG.POSS  
           She took her mother home
- c. k<sup>w</sup>u            c-x<sup>w</sup>ic-**t**-x<sup>w</sup>                    iʔ    lpot.  
           1SG.ABS CUST-give-APPL-2SG.ERG DET cup  
           Pass me the cup.
- d. k<sup>w</sup>ul-**xt**-n                    t            yámx<sup>w</sup>aʔ.  
           make-BEN-1SG.ERG OBL cedar.root.basket  
           I made someone a cedar root basket.

Syntactically transitive predicates (more specifically, those with possessor sub-

<sup>2</sup>Okanagan also has transitivizers *-tútt-*, *-núnt-*, *-nútt-* and *-núst-* (A. Mattina (1982) and N. Mattina (1996b)).

jects) do not contain transitivizers (5), yet may select for subject and object arguments.<sup>3</sup>

- (5)    i[n]-s-čáq<sup>w</sup>-əm                    iʔ    pus.  
          1SG.POSS-NOM-point-MID   DET   cat  
          I am pointing at the cat.

Formally intransitive predicates take absolutive subjects and are marked by -əm ‘middle’ or active intransitivizer -x/-aʔx morphology, and do not select for objects, but may occur with an oblique-marked ‘quasi-object’ (N. Mattina (1993b) and Davis and Matthewson (2003)).

- (6) a.    kn            kaʔkíc-əm   **t**    **spəplínaʔ**.  
          1SG.ABS   find-MID   OBL   rabbit  
          I found a rabbit.  
       b.    kn            ks-n-ʔíys-aʔx    **t**    **i-kł-kəwáp**.  
          1SG.ABS   FUT-n-buy-INTR   OBL   1SG.POSS-U.POSS-horse  
          I am going to buy a horse.

Passive predicates, characterized as having a transitivizer plus the ‘passive’ suffix -əm, may also occur with an oblique-marked agent (7) though in these cases, an *iʔ* determiner often co-occurs with the oblique-marked nominal.

- (7)    kíl-ənt-**əm**            iʔ    t    skmxíst.  
          chase-DIR-PASS   DET   OBL   bear  
          He was chased by the bear.

Independent pronouns are primarily used for emphatic purposes (Table 3.5), and normally co-occur with and co-refer with a pronoun from one of the other sets.<sup>4</sup>

<sup>3</sup>N. Mattina (1996b, 39) notes that nominalized irrealis predicates (i.e. those prefixed by *ks-*) take possessor subjects in the singular, but ergative subjects in the plural. This reflects a historical process whereby nominalized intransitive predicates are gradually being reanalyzed as transitives (Henry Davis, p.c.).

<sup>4</sup>I have data showing that in contexts where an independent pronoun and a demonstrative are being equated, e.g. *ixiʔ incá* ‘That’s me’, co-referring absolutive morphology is not necessary.

- (8) a. **incá** kn məq'-ínk.  
 1SG.INDEP 1SG.ABS full-stomach  
 Me, I'm full.
- b. **nnímłtəmp** t sqilx<sup>w</sup>, tałíł? p ǵast.  
 2PL.INDEP OBL native.people very 2PL.ABS good  
 You people, you are good people.

The Okanagan aspectual system is based on a set of morphemes which are primarily prefixes and which attach to verbal stems. These include most notably prospective/future *ks-* (9a), and customary/habitual *c-* (9a,b).<sup>5</sup>

- (9) a. way' **c-my-st-in** i? sqəłtmíx<sup>w</sup> i?  
 yes CUST-know-CAUS-1SG.ERG DET man DET  
**ks-ʔaws-łəłt-míxaʔx.**  
 FUT-go-line.fish-INTR  
 Yes, I know the man who is going to go fishing.
- b. pintk **c-k<sup>w</sup>úl-ə**m t yámǵ<sup>w</sup>a?  
 always CUST-make-MID OBL cedar.bark.basket  
 She's always basket-making.

The transitivity and aspect systems interact in numerous ways to yield sentences with specific aspectual and temporal interpretations. I refer the reader to A. Mattina (1993a) and N. Mattina (1996b, section 2.1.1), who provide detailed descriptions and analyses of the Okanagan aspect and transitivity systems, as does Hébert (1982b), albeit within a different theoretical framework.

For the purposes of this dissertation, it is important to note that there is a syntactic and semantic distinction in the nominal domain between full arguments and quasi-arguments (cf. chapter 4), and that this distinction correlates not only with differences in nominal morphosyntax, but also with differences in transitivity and aspect. Because I correlate full argumenthood with nominal morphosyntax, rather than directly with transitivity and aspect, I do not further address the transitivity

<sup>5</sup>Additionally, *ks-* and *c-* may combine to form a perfect aspect, and *c-* may combine with the nominalizer *s-* to form *sc-*, yielding an imperfective aspect with formal intransitives, and a perfective aspect with nominalized possessor forms (A. Mattina 1993a).

and aspectual system except to establish its correlation with syntactic argumenthood in chapter 4.<sup>6</sup>

### 3.3 Clausal Word Order

This section presents data on clausal word order for Okanagan, with some notes on dialectal differences between Upper Nicola and other dialects. The following table gives a summary of permissible and non-permissible word orders in Okanagan. I discuss each of these word orders in turn.

**Table 3.6:** Summary of Word Orders in Upper Nicola Okanagan

| word order | ✓/* | notes                                |
|------------|-----|--------------------------------------|
| SV         | ✓   | unmarked                             |
| SVO        | ✓   | unmarked                             |
| SOV        | *   | ungrammatical                        |
| VS         | ✓   | unmarked                             |
| VO         | ✓   | unmarked                             |
| VSO        | ✓   | unmarked                             |
| VOS        | ✓   | unmarked (in non-ambiguous contexts) |
| OV         | ✓   | marked, object topic/focus structure |
| OSV        | (✓) | marked, object topic/focus structure |
| OVS        | (✓) | marked, object topic/focus structure |

Okanagan, like other Salish languages, has been argued to be a fundamentally predicate-initial language, although it has also been noted that word order is flexible (N. Mattina 1996b).

For simple intransitives with DP subject arguments, a VS ordering (10) or

---

<sup>6</sup>I argue in that full argumenthood correlates with nominal morphosyntax, rather than transitivity and aspect, because some quantifiers are restricted to co-occurring with the determiner *i?* (e.g. *yaʔyaʔ* ‘all’). Since quantifiers are not part of the transitivity or aspectual systems, I claim that quantifiers like *yaʔyaʔ* ‘all’ can only select for a full DP argument. Thus, argumenthood is independent of the transitivity and aspectual systems.

an SV-ordering (11) is equally acceptable (N. Mattina (1994), Baptiste (2001)).<sup>7</sup> Within running discourse, pre-verbal subjects are normally ‘topical’, by which I mean an element that is discourse-old, informally speaking. In elicitation contexts however, the two word orders are interchangeable.

- (10) a. x<sup>w</sup>aʔ-x<sup>w</sup>íst iʔ tkłmilx<sup>w</sup>.  
           many-walk DET woman  
           The woman started walking.

- b. ʔax<sup>w</sup>t iʔ qáqx<sup>w</sup>əlx  
       dead DET fish  
       The fish are dead.

- (11) a. iʔ tkłmilx<sup>w</sup> x<sup>w</sup>aʔ-x<sup>w</sup>íst.  
           DET woman many-walk  
           The woman started walking.

- b. iʔ qáqx<sup>w</sup>əlx ʔax<sup>w</sup>t.  
       DET fish dead  
       The fish are dead.

For transitive sentences with an object DP as the single overt argument, both VO (12) and OV (13) are acceptable orders. OV order may be used to signal a topical object,<sup>8,9</sup> however an initial object is not necessarily topical: sentences like (13a) are judged felicitous in out-of-the-blue circumstances as well, hence the indefinite DP in the English translation.<sup>10</sup>

- (12) a. wík-ən iʔ sámaʔ.  
           see-[DIR]-1SG.ERG DET white.person  
           I saw a white person.

<sup>7</sup>Not all Salish languages permit pre-verbal subjects, for example Northern Straits (Montler, 1993) and Upper Lillooet (Davis, 1999b) do not.

<sup>8</sup>See Gardiner (1993) for discussion of pre-verbal topical objects in Shuswap.

<sup>9</sup>The *iʔ* determiner in (12b) and (13b) is underlyingly present but regularly reduces before 1st person possessive prefix *in-* and 2nd person possessive prefix *an-* (A. Mattina 2000, 157)

<sup>10</sup>Darnell (1995, 99) found in his textual study of Colville-Okanagan (A. Mattina 1985) that non-contrastive topics could not be pre-posed. Non-contrastive non-topics may, however, be pre-posed, a finding which seems to support out-of-the-blue uses of data like (13a).

b. n-ŋíys-ən                      [iʔ]    an-qəy'-mín.  
       n-buy-[DIR]-1SG.ERG [DET] 2SG.POSS-write-INSTR  
       I bought your book.

(13) a. iʔ    sámaʔ                wík-ən.  
       DET white.person see-[DIR]-1SG.ERG  
       I saw a white person.

b. [iʔ]    an-qəy'-mín                      n-ŋíys-ən.  
       [DET] 2SG.POSS-write-INSTR n-buy-[DIR]-1SG.ERG  
       I bought your book.

For transitive sentences with two overt nominal DP arguments, SVO is the preferred and most common word order in elicitation contexts (14).<sup>11</sup> In texts and conversations, however, transitive sentences involving two overt DPs are extremely rare (A. Mattina 2001), since anaphoric DPs are normally null.

- (14) a. iʔ    sámaʔ                wik-s                      iʔ    xíxwtəm.  
       DET white.person see-[DIR]-3SG.ERG DET little.girl  
       The white person saw the little girl.
- b. iʔ    ylmíx<sup>w</sup>əm    ʔmink-s                      iʔ    automobile.  
       DET chief        want-[DIR]-3SG.ERG DET automobile  
       The chief wants the car.
- c. iʔ    xíxwtəm    wik-s                      ixíʔ.  
       DET little.girl see-[DIR]-3SG.ERG DEM  
       The little girl saw that.
- d. John    wik-s                      Mary.  
       John see-[DIR]-3SG.ERG Mary  
       John saw Mary.

---

<sup>11</sup>Hébert (1982b, 47) analyzes SVO sentences as topicalization of a subject. N. Mattina (1994, 95) states that “nominals in preverbal positions appear to have a focus semantics”, but it is unclear from these accounts what exactly is meant by a subject being ‘topical’ or in ‘focus’.

- e. ha iʔ sənktʰcaʔsqáʰaʔ wik-s iʔ xíxwtəm?  
 YNQ DET horse see-[DIR]-3SG.ERG DET little.girl  
 Did the horse see the girl?

Verb-initial transitive sentences are also commonplace. In the Upper Nicola dialect, the first DP following the verb is nearly always interpreted as the subject, yielding a surface VSO ordering (15a-c) (Baptiste, 2001; Hébert, 1982a,b).<sup>12,13</sup>

- (15) a. wik-s iʔ xíxwtəm iʔ samáʔ.  
 see-[DIR]-3SG.ERG DET little.girl DET white.person  
 The little girl saw the white person.
- b. ʃmink-s iʔ skəmxíst iʔ síyaʔ.  
 like-[DIR]-3SG.ERG DET bear DET saskatoon.berry  
 Bears like saskatoon berries.
- c. wik-s iʔ xíxwtəm ixíʔ.  
 see-[DIR]-3SG.ERG DET little.girl DEM  
 The little girl saw it.  
 \*It saw the little girl.
- d. náqʷ-əm-s Ben iʔ sənktʰcaʔsqáʰaʔ.  
 steal-MID-[DIR]-3SG.ERG Ben DET horse  
 Ben stole the horse.

VOS interpretations are possible in cases where the subject is animate and the object inanimate (A. Mattina 2004), as in (16a,b), though these are not consistently

<sup>12</sup>VSO is not consistently judged grammatical if the two post-predicative DPs are proper names (i). N. Mattina (1994, 96) finds these cases to be ungrammatical.

- (i) ʔwik-s John Mary  
 see-[DIR]-3SG.ERG John Mary  
 John saw Mary  
 LL: *John wiks Mary* would be better. Doesn't sound right.

<sup>13</sup>The interpretive restriction in (15c) patterns opposite to what is found in Northern Interior and Central Salish, where the One Nominal Interpretation constraint would force the determiner-headed DP to be interpreted as an object, and a single demonstrative as a subject (cf. Gerdts and Hukari (2004)).

judged grammatical in the Upper Nicola dialect (16c), and are usually corrected to an SVO order.<sup>14</sup>

- (16) a.  $\check{x}mink-s$                        $i?$      $síya?$                        $i?$      $skəmxíst.$   
           like-[DIR]-3SG.ERG DET saskatoon.berry DET bear  
           Bears like saskatoon berries.  
           #Saskatoon berries like bears.
- b.  $cmaɣ$   $tʰap-nt-ís$                        $i?$      $sʰa?cínəm$  John.  
           EPIS shoot-DIR-3SG.ERG DET deer                      John  
           Maybe John shot the deer.  
           #Maybe the deer shot John.
- c.  $*\check{x}mink-s$                        $i?$     automobile  $i?$      $ylmíx^wəm.$   
           want-[DIR]-3SG.ERG DET automobile DET chief  
           The chief wants the car.  
           #The car wants the chief.

For the Colville dialect, N. Mattina (1994) states that VSO and VOS are both acceptable, so long as there is no ambiguity,<sup>15</sup> though it seems clear for the Upper Nicola dialect that VSO is strongly preferred.

Word order in subordinate clauses follows the same pattern as that found in main clauses, allowing for either subject-initial (17a) or verb-initial (17b-c) ordering. The difference in translations between (17b) and (17c) exemplifies the preference for a VSO interpretation over VOS in contexts for which the animacy of the two arguments is equivalent.

<sup>14</sup>This suggests that VOS interpretations of the examples in (15) should also be possible given a suitable context (for 15a at least).

<sup>15</sup>See Davis (2005) for similar findings in Lillooet, though VOS is unmarked in the Upper dialect, while VSO is unmarked in the Lower dialect.



- (17) a. kn            n-stils   iʔ   qʷɥay-lqs   caʔ-nt-ís            iʔ   ylmíxʷəm.  
           1 SG.ABS n-think DET black-robe hit-DIR-3SG.ERG DET chief  
           I think that the priest hit the chief.
- b. kn            n-stils   caʔ-nt-ís            iʔ   qʷɥay-lqs   iʔ   ylmíxʷəm.  
           1 SG.ABS n-think hit-DIR-3SG.ERG DET black-robe DET chief  
           I think that the priest hit the chief.
- c. kn            n-stils   caʔ-nt-ís            iʔ   ylmíxʷəm   iʔ   qʷɥay-lqs.  
           1 SG.ABS n-think hit-DIR-3SG.ERG DET chief        DET black-robe  
           I think that the chief hit the priest.

For V-initial sentences involving phonologically heavy DP arguments, a strong preference for an object-reading of the heavy DP surfaces (cf. Davis (2005) for equivalent data in Lillooet):<sup>16</sup>

- (18) a. ʔaʔʔaʔ-nt-ís            iʔ   sɪlxʷaʔ   iʔ   piq   iʔ   kəkʷáp   Gertie.  
           look.for-DIR-3SG.ERG DET big        DET white DET dog        Gertie  
           VOS: Gertie was looking for the big white dog.  
           \*VSO: The big white dog was looking for Gertie.
- b. ʔaʔʔaʔ-nt-ís            Gertie   iʔ   sɪlxʷaʔ   iʔ   piq   iʔ   kəkʷáp.  
           look.for-DIR-3SG.ERG Gertie DET big        DET white DET dog  
           ?VOS: The big white dog was looking for Gertie  
           VSO: Gertie was looking for the big white dog.

For the Colville and Upper Nicola dialects, both VSO and VOS are possible; however VSO is strongly preferred in the Upper Nicola (and Lakes) dialect, while VOS is preferred in Colville. This most likely represents a dialectal difference (Baptiste, 2001, 21), with more southerly dialects allowing freer post-predicative ordering of subject and object than the more northerly dialects.

SOV is not a possible order (19). Baptiste (2001, 19) describes this as a restriction against more than one DP occurring pre-predicatively.

<sup>16</sup>Though ideally, animacy should be controlled for in (18) by either making both referents human or both non-human.

- (19) a. \*iʔ ylmíx<sup>wə</sup>m iʔ q̣ʷay-lqs caʔ-nt-ís.  
 DET chief DET black-robe hit-DIR-3SG.ERG  
 \*The chief hit the priest.
- b. \*John Mary wik-s.  
 John Mary see-[DIR]-3SG.ERG  
 \*John saw Mary.  
 Mary saw John.
- c. \*kn n-stils John Mary wik-s.  
 1SG.ABS n-think John Mary see-[DIR]-3SG.ERG  
 I think that John saw Mary.

Nevertheless, in contexts involving an object with a special discourse status (e.g. focused or topicalized), a surface OSV ordering is possible, as shown in the subordinate clause of (20, cf. 17 above), and also illustrated in (21), where the fronted object is modified by a relative clause.<sup>17</sup>

- (20) kn n-stils iʔ q̣ʷay-lqs iʔ ylmíx<sup>wə</sup>m caʔ-nt-ís.  
 1SG.ABS n-think DET black-robe DET chief hit-DIR-3SG.ERG  
 I think that it was the priest that the chief hit.
- (21) iʔ skəmxíst iʔ ṭʰap-nt-ís John kaʔkíc-iʔ-s.  
 DET bear DET shoot-DIR-3SG.ERG John find-MID-3SG.POSS  
 The bear he<sub>i</sub> shot, John<sub>i</sub> found.

OVS interpretations are not possible in unmarked contexts.<sup>18</sup> Thus, the initial clause in (22) is normally only interpretable as *John saw Mary*, and not *Mary*

<sup>17</sup>For (21), the middle suffix *-m* becomes *-iʔ* before a 3rd person possessive morpheme (A. Mattina 1993a, 251).

<sup>18</sup>N. Mattina (1994, 96) indicates that OVS is made possible by pairing an inanimate object with an animate subject (i), similarly to the VOS data given as (16), at least for 2 out of 4 of her speakers.

- (i) iʔ sqlaẉ wik<sup>w</sup>-s in-túṃ.  
 DET money hide-[DIR]-3SG.ERG 1SG.POSS-mother  
 My mother hid the money. (N. Mattina 1994)

It is unclear whether (i) was elicited with focus on *iʔ sqlaẉ* ‘the money’, however. Baptiste (2001) found data like (i) to be ungrammatical with the speakers she worked with, and I have found OVS sentences to be grammatical only in contexts involving object focus (24).

saw *John*.<sup>19</sup> Comparing (23a) with (23b), we see that the latter is pragmatically infelicitous since the pre-predicative DP is interpreted as a subject.

- (22) John wik-s Mary, lut Alice.  
 John see-[DIR]-3SG.ERG Mary NEG Alice  
 John saw Mary, not Alice.

- (23) a. *i?* s-k<sup>w</sup>-k<sup>w</sup>íy-m-əlt ?it-s *i?*  
 DET NOM-IREN-small-m-child eat-[DIR]-3SG.ERG DET  
 s-tx-ałq t spi?scíft.  
 NOM-sweet-fruit OBL yesterday  
 The child ate the fruit yesterday.
- b. #*i?* s-tx-ałq ?it-s *i?* s-k<sup>w</sup>-k<sup>w</sup>íy-m-əlt  
 DET NOM-sweet-fruit eat-[DIR]-3SG.ERG DET NOM-IREN-small-m-child  
 t spi?scíft.  
 OBL yesterday  
 #The fruit ate the child yesterday(!!)

Nevertheless, OVS is possible in contexts involving corrective focus, indicated by bold type (24b).<sup>20</sup> Clefting of the object is also a possibility in these contexts (24c).<sup>21</sup>

<sup>19</sup>Similar facts obtain for Lower Lillooet, as documented in (Davis, 2007).

<sup>20</sup>These examples illustrate stripping of SV in the second conjunct, which suggests that an object can move out of VP.

<sup>21</sup>Clefting of a DP constituent is indicated by the pre-predicative determiner *i?*, and is discussed in some detail in chapters 7 and 8. It is an interesting fact that unmarked object fronting, as in (24b), can be used to signal corrective focus. Unmarked fronting can also signal a contrastive topic in some cases in Okanagan (cf. Gardiner (1993) for unmarked fronting and contrastive topics in Shuswap). For reasons of space, I do not discuss unmarked fronting in detail in this dissertation; however it is important to note that corrective focus is not limited only to clefting or equative environments, which are discussed in chapters 7 and 8.

- (24) a. Q: uc John wik-s Alice?  
 Q: DUB John see-[DIR]-3SG.ERG Alice  
 Q: Did John see Alice?
- b. A: **Mary** wik-s John, lut Alice.  
 A: Mary see-[DIR]-3SG.ERG John NEG Alice  
 A: John saw **Mary**, not Alice.
- c. A: **Mary** i? wik-s John, lut Alice.  
 A: Mary DET see-[DIR]-3SG.ERG John NEG Alice  
 A: John saw **Mary**, not Alice.  
 Literally: It was **Mary** that John saw, not Alice.

The answer in (24b) is also felicitous as a response to the question *Did Alice see John?*, with corrective focus on Mary as the subject in this case. This is as expected, given that SVO word order is unmarked.

In sum, it seems plausible that O-initial structures involving focus or topicalization are derived by a leftward movement of a DP out of a base V-initial structure in Okanagan. While pre-predicative focus in Northern Interior Salish and Central Salish is overtly marked by A'-extraction morphology, such morphology has been lost in Southern Interior Salish (Kroeber, 1999). It is therefore not possible to tell from surface morphology whether O-initial structures are derived by A or A' movement. Regarding S-initial structures, it is less clear that these are derived, since initial subjects do not necessarily receive a focused interpretation, and the \*SOV/OSV asymmetry suggests a different derivation for preverbal subjects versus preverbal objects. Clearly, more work needs to be done on word order and configurationality in Okanagan.

The next chapter consists of a closer inspection of the syntactic distribution of argument expressions in the language, specifically the distribution of the determiner *i?* and oblique marker *t* in their role of introducing core and oblique arguments.

## Chapter 4

# The Structure and Distribution of NP and DP

The overall goal of this chapter is to give the reader a broad overview of Okanagan syntax, with specific focus on the distribution and form of NPs and DPs within the sentence, and the internal structure of DPs.

### 4.1 Introduction

In this chapter, I first delimit the concept of ‘noun’ for Okanagan, and the syntactic categories for which noun-hood is integral, specifically NP and DP. Both of these categories can be defined and distinguished in terms of their distributions. Section 4.2 presents evidence that nouns form a non-derived, inherently predicative lexical class in Okanagan. DPs are a derived class, and may be formed by prefacing a (sometimes covert) NP with the determiner *i?*.<sup>1</sup> DPs, unlike NPs, do not normally function as syntactic predicates (section 4.3).<sup>2</sup>

Section 4.4 focuses on the distribution of the determiner *i?* and the oblique marker *t*, as the two primary markers of arguments in the language. Although the two particles themselves can co-occur, the data show that the grammatical environment will reliably predict whether a specific argument type will be introduced

---

<sup>1</sup>Proper nouns are lexical NPs which may also be converted into DPs. See section 4.6.2.

<sup>2</sup>Except in predications consisting of two DPs. This is the major focus of chapter 7.

by *i?*, *t* or both.<sup>3</sup> *i?* usually marks a direct grammatical relation (i.e. subject or object), whereas *t* marks an indirect, or oblique, grammatical relation (e.g. passive agent, instrument, temporal adjunct, oblique argument) (N. Mattina 1996b, 45-50).

In section 4.5, I present my syntactic analysis of Okanagan *i?* DPs, and then discuss the distribution of demonstrative DPs and proper name DPs in 4.6. I summarize and conclude this chapter in section 4.7.

## 4.2 Distinguishing Nouns as a Syntactic Category

Okanagan nouns generally denote ‘persons, places, or things’. Some examples are illustrated in (1):

- (1) a. *íikʷt* ‘lake’  
 b. *qáqxʷəlɬ* ‘fish’  
 c. *xíxwtəm* ‘little girl’  
 d. *stəmtíma?* ‘grandmother’  
 e. *spáx̣mən* ‘scraper, tool (Douglas Lake)’  
 f. *stə́x̣áɬq* ‘blueberries, sweet berries’  
 g. *sənlkmín* ‘jail’

Morphologically, all nouns consist minimally of a root, and may be simplex (e.g. 1a), or may have an analyzable nominalizer prefix *s-* (e.g. 1d-f), contain a locational circumfix *sən...min* (e.g. 1g) or one of several instrumental suffixes like *-mən* (e.g. 1e). In addition, nouns may be formed by synchronic or diachronic processes of reduplication (1b,c,d), and may also contain lexical suffixes like *-aɬq* ‘round object’ (e.g. 1f). All these morphological operations are derivational, and affect neither the ability of the resulting word to function as a predicate, nor as the complement to a determiner, given a larger syntactic context. For this reason, I largely ignore morphological differences between nouns.<sup>4</sup> I refer the reader to

<sup>3</sup>Broadly speaking, the determiner *i?* is used in both referential and non-referential contexts, as might be expected for a language which utilizes just one determiner. There is nevertheless a tendency for Okanagan speakers to use formally intransitive verbs, and thus introduce nominals with the oblique marker *t*, in non-referential contexts. I defer discussion of the semantics of *i?* and *t* until chapter 5.

<sup>4</sup>N. Mattina (1996b, 25) also notes that the internal structure of *bases* (e.g. the nouns in 1) are not relevant to syntax.

N. Mattina (1996b) for a discussion of noun-related morphological derivations.<sup>5</sup>

It has often been remarked that lexical items corresponding to nouns (2a), adjectives (2b), and verbs (2c) in English may all function as main clause predicates in Salish languages (Kinkade, 1983; Jelinek, 1998; Davis, 1999b), including Okanagan (N. Mattina 1996b). Such data has been used to motivate claims that Salish languages in fact lack lexical categorial distinctions, and so we must look elsewhere for evidence.

- (2) a. [pəptwínax<sup>w</sup><sub>NP</sub>] iʔ səx<sup>w</sup>-maʔmáyaʔ-m.  
           old.woman           DET OCC-teach-MID  
           The teacher is an old woman.
- b. [pəxpáxt<sub>AP</sub>] iʔ səx<sup>w</sup>-maʔmáyaʔ-m.  
           smart           DET OCC-teach-MID  
           The teacher is smart.
- c. [n-yak<sup>w</sup>-mí(n)-nt-x<sup>w</sup><sub>VP</sub>] iʔ təmx<sup>w</sup>úlaʔx<sup>w</sup>.  
           n-cross.over-MIN-DIR-2SG.ERG DET land  
           You crossed over the land.

Syntactic evidence for distinguishing N, A, and V as lexical classes comes from data involving *complex nominal predicates* (CNPs) (Demirdache and Matthewson, 1995; Davis et al., 1997; Koch, 2004). CNPs consist of a NP projection of a nominal head which is attributively modified by either another NP, or an AP (cf. section 6.2 for structural analysis). In (3a) below, the noun *tkłmilx<sup>w</sup>* ‘woman’ is being modified by the adjective *ǰast* ‘good’, and the entire modified complex is the main clause predicate, taking the DP *iʔ ylmíx<sup>w</sup>əmtət* ‘our chief’ as an argument. Crucially, the modifying constituent must precede the head noun (3b,4b), and be linked to the head noun by the oblique marker *t* (3c,4c).<sup>6</sup>

<sup>5</sup>There are other morphological tests for noun-hood discussed in Hébert (1982a, 49): e.g. the resulting category of an element prefixed by *səx<sup>w</sup>*- ‘habitual agent’, or suffixed by *-tn* or *-mn/-mín* ‘instrumental’, is a noun.

<sup>6</sup>See chapter 6 for tests which help to distinguish attributive from relative clause modification, and discussion of an additional requirement that a modifying adjectival constituent be either an individual-level predicate, or if not, be prefixed by stative/customary *ac-*.

- (3) a. [ǰast t tkɫmilx<sup>w</sup> *CNP*] iʔ ylmíx<sup>w</sup>əm-tət.  
 good ATTR woman DET chief-1PL.POSS  
 Our chief is a good woman.
- b. \*[tkɫmilx<sup>w</sup> t ǰast *CNP*] iʔ ylmíx<sup>w</sup>əm-tət.  
 woman ATTR good DET chief-1PL.POSS  
 Our chief is a good woman.
- c. \*[ǰast tkɫmilx<sup>w</sup> *CNP*] iʔ ylmíx<sup>w</sup>əm-tət.  
 good woman DET chief-1PL.POSS  
 Our chief is a good woman.
- (4) a. kn [síl x<sup>w</sup>aʔ t sqəltmíx<sup>w</sup> *CNP*].  
 1SG.ABS big ATTR man  
 I am a big man.
- b. \*kn [sqəltmíx<sup>w</sup> t síl x<sup>w</sup>aʔ *CNP*].  
 1SG.ABS man ATTR big  
 I am a big man.
- c. \*kn [síl x<sup>w</sup>aʔ sqəltmíx<sup>w</sup> *CNP*].  
 1SG.ABS big man  
 I am a big man.

An NP can also modify another NP. The linear order between attributive NP combinations appears to be free in certain cases (5), while there are restrictions in other cases (6-7):

- (5) a. [sən-máʔmáyaʔ-tən t qəy'-mín *CNP*].  
 LOC-teach-INSTR ATTR write-INSTR  
 That's a school book.
- b. [qəy'-mín t sən-máʔmáyaʔ-tən *CNP*].  
 write-INSTR ATTR LOC-teach-INSTR  
 That's a school book.



- (6) a. ixíʔ [ʔə́x-ʔə́xáp t qʷɤay-lqs *CNP*].  
 DEM RED-grown ATTR black-robe  
 That's an old-man priest.
- b. \*ixíʔ [qʷɤay-lqs t ʔə́x-ʔə́xáp *CNP*].  
 DEM black-robe ATTR RED-grown  
 ?That's a priest old-man.
- (7) a. ixíʔ [sqilxʷ t tətʷít *CNP*].  
 DEM native.person ATTR boy  
 That's a native boy.
- b. \*ixíʔ [tətʷít t sqilxʷ *CNP*].  
 DEM boy ATTR native.person  
 ?That's a boy native.

The ungrammaticality of (6b) and (7b) could be argued to stem from the fact that ʔə́x-ʔə́xáp ‘old man’ and *sqilxʷ* ‘native person’ are in fact adjectives, and can therefore not occur in final position of a *CNP*, however unlike the adjectival modifiers in (3-4), lexical items such as *sqilxʷ* may occur in final position of a *CNP* when the modifier is clearly adjectival (8).

- (8) ixíʔ [ʔə́ast t sqilxʷ *CNP*].  
 DEM good ATTR native.person  
 Those people are good Native people.

The generalization therefore seems to be that some nouns (e.g. *sqilxʷ* ‘native person’) may function as NP heads (8) or as NP modifiers (7a), while other nouns (e.g. *tətʷít* ‘boy’) may only function as NP heads (7). Adjectives (e.g. ʔə́ast ‘good’), by contrast, can only ever function as modifiers within a *CNP* (3a,8), never as heads (3b).

To summarize the data and generalizations so far: first, an attributive modifier must precede the constituent it is modifying; second, an NP can function as either a modifier, or a modifiee; third, an AP may not function as a modifiee (cf. 3b-4b). We thus have syntactic evidence for a categorial distinction between AP and NP, and by assumption, also A and N.

Verbs and adjectives may be distinguished by means of *complex DPs*, which are argument expressions consisting of a CNP complement to an *i?* determiner. Examples are shown below in (9).<sup>7</sup> While an AP may function as an attributive modifier (9a-b), a VP cannot (9c-d):<sup>8</sup>

- (9) a. wík-ən                      i?    [ʔlál t        kəkʷáp *CNP*].  
           see-[DIR]-1SG.ERG DET dead ATTR dog  
           I saw a dead dog.
- b. wík-ən                      i?    [qʷʔay t        sʷarákxən *CNP*].  
           see-[DIR]-1SG.ERG DET blue ATTR frog  
           I saw a blue frog.
- c. \*wík-ən                      i?    [tʰwʔlɪx        t        skəkʔákaʔ *CNP*].  
           see-[DIR]-1SG.ERG DET flying.around ATTR birds  
           I saw the flying birds.
- d. \*wík-ən                      aʔ    [c-ʔəʔp-mə-ncút        t  
           see-[DIR]-1SG.ERG DET CUST-jump-MIN-REFLEX ATTR  
           xíxwtəm *CNP*].  
           little.girl  
           I saw the jumping girl.

The generalization may be that adjectives like in (9a,b) do not project aspectual clausal structure, but that unergative verbs do (9c,d), and that aspectual structure cannot occur in syntactic positions reserved for attributive modifiers (Koch, 2006; Davis, 2011), but instead must assume the form of a relative clause.<sup>9</sup>

In sum, the syntactic category NP in Okanagan can be defined distributionally as that class of items which can be both attributively and clausally modified. An in-depth discussion of attributive and relative clause modification may be found

<sup>7</sup>Modifiers within a complex DP structure are subject to slightly less stringent conditions than those in predicative CNPs: stage-level, but non-eventive, modifiers are permitted (Lyon, 2010a; Davis, 2011). See also chapter 6.

<sup>8</sup>The *i?* determiner becomes *aʔ* in certain contexts, including before *c-* ‘customary/habitual’ as in (9d, cf. 74c), *ʔ-* ‘back, again’ and *kʔ-* ‘have’ (A. Mattina 2000, 151).

<sup>9</sup>Transitive predicates are also ungrammatical as attributive modifiers. See chapter 6.

in chapter 6, the purpose here being only to convince the reader that there is a syntactically distinguishable noun category in the language.

### 4.3 NP versus DP

There is an important distinction to be made in this dissertation between NPs and DPs: NPs are predicates; noun complements of the determiner *i?* (i.e. *i?* DPs) are not predicates, since the argument position of the noun is saturated by the determiner. This predicts that NPs and DPs should display different syntactic behaviour, and this is indeed the case.

Given an appropriate context, a bare noun is interpretable as a predicate taking a null 3rd person pronoun as an argument (10a); a complete sentence in other words. The argument may be overtly realized as a demonstrative (10b), a proper name (10c), or an *i?* DP (10d). A bare NP cannot function as an argument (10d).

- (10) a. səx<sup>w</sup>-píǰ-əm    ∅.  
           OCC-hunt-MID *pro*  
           (He/she) is a hunter.
- b. səx<sup>w</sup>-píǰ-əm    ixíʔ.  
           OCC-hunt-MID DEM  
           He/she is a hunter.
- c. səx<sup>w</sup>-píǰ-əm    Spike.  
           OCC-hunt-MID Spike  
           Spike is a hunter.
- d. səx<sup>w</sup>-píǰ-əm    \*(iʔ)    ʔəǰ-ʔǰáp.  
           OCC-hunt-MID \*(DET) RED-grown  
           The old man is a hunter.

An isolated *i?* DP (11), by contrast, is only interpretable as a fragment. Speakers never translate isolated *i?* DPs as complete sentences, unlike isolated NPs (10a).

- (11) *i?*    səx<sup>w</sup>-píǰ-əm    (\*∅).  
       DET OCC-hunt-MID (\**pro*)  
       a/the hunter

Thus, the categorial distinction between NP and DP corresponds to a predicate/argument distinction, and the determiner *iʔ* functions to convert a predicate into an argument expression (Longobardi, 1994; Chierchia, 1998). In other words, bare NPs are always predicates, but NP complements to an *iʔ* determiner constitute argument expressions.<sup>10</sup>

It is important to note that D selects *only* for NP in Okanagan, and not for any other category. This is not immediately apparent, since nominal predicates like *pəptwínax<sup>w</sup>* ‘old woman’ (12a), adjectival predicates such as *pəxpáxt* ‘smart’ (12b), and verbal predicates like *nyak<sup>w</sup>míntx<sup>w</sup>* ‘you crossed over it’ (12c) may all be preceded by a determiner.

- (12) a. *iʔ* [pəptwínax<sup>w</sup> <sub>NP</sub>]  
           DET old.woman  
           the old woman
- b. *iʔ* [pəxpáxt <sub>AP</sub>]  
           DET smart  
           the (one who is) smart
- c. *iʔ* [n-yak<sup>w</sup>-mín-[n]t-x<sup>w</sup> <sub>VP</sub>]  
           DET n-cross.over-MIN-DIR-2SG.ERG  
           the (thing that) you crossed over

For cases involving AP (12b) and VP (12c), there is evidence for a null NP head (Davis, 2011), and that these cases involve ‘headless’ relative clauses (Kroeger, 1997). In other words, the AP and VP are modifying a null NP head, as schematized in (13) for (12c). The particular analysis given as (13) is justified in some detail during my discussion of relative clauses in section 6.3.3.

- (13) [*iʔ* [<sub>j</sub> [[*iʔ* [<sub>NPj</sub>] <sub>DPi</sub>] [nyak<sup>w</sup>míntx<sup>w</sup> <sub>t<sub>i</sub></sub> <sub>VP</sub>] <sub>CP</sub>] <sub>NP</sub>] <sub>DP</sub>]

In (13), an initial determiner *iʔ* selects for a null NP (subscript *j*) which is modified by a relative clause CP containing a DP which has moved from a post-verbal posi-

<sup>10</sup>Hébert (1982a, 35) states that “it is only nominal arguments, and not predicates, which are marked with a ‘determiner’”. While true that the data in (12) are all arguments, their status as arguments is the result of the determiner *iʔ*, and not the lexical category of the determiner’s complement.

tion within the clause to the left-edge of the relative clause CP (cf. (Davis, 2004, 2010a) for Lillooet, and Kroeber (1997, 1999) and Koch (2006) for Thompson). The second, clause-introducing determiner deletes due to a filter on sequences of identical determiners, as discussed in chapter 6 (cf. Davis (2010a) for Lillooet). The head NP may also be overt (14, ‘the land you crossed over’), in which case an *i?* determiner surfaces before the head as well as the clause.

- (14)  $[i? [t\text{ə}mx^w \acute{u}la?x^w_j [[i? [\textcircled{O} NP_j] DP_i] [nyak^w m\acute{i}ntx^w t_i VP] CP] NP] DP]$

Clear evidence for the existence of relative clauses in Okanagan comes from data involving long range extraction. In (15), there is a gap following the final intransitive predicate  $x^wuy$  ‘go’. The determiner *i?* which precedes the transitive predicate *wiks* ‘she saw her’ forms a DP constituent with a null NP, and this DP has raised from the gap site, in a manner analogous to the structure represented in (14).<sup>11</sup>

- (15) kn-xít-ən                      i?    tkłmilx<sup>w</sup>    kl-klax<sup>w</sup>                      i?  
 help-BEN-1SG.ERG DET woman RED-evening DET  
 wik-s                                  Sarah ła?                      x<sup>w</sup>uy.  
 see-[DIR]-3SG.ERG Sarah COMP go

I helped the woman who Sarah saw leave last night.

Only NPs may head relative clauses (16a). (16b) shows that an adjective cannot function as a relative clause head, and is only marginally acceptable under an interpretation where the adjective is modifying a null NP head (Demirdache and Matthewson, 1995; Davis et al., 1997; Davis, 2011).<sup>12,13</sup> A verb also cannot function as the head of a relative clause (16c).

<sup>11</sup>I have been unable to elicit headless examples of long range extraction, although these are possible in Lillooet (Davis, 2010a, 12, ex.22).

<sup>12</sup>These facts are different than those documented for Straits Salish in Montler (1993), where it is shown that adjectives may occur in these positions.

<sup>13</sup>The determiner *i?* lowers to *a?* before the customary prefix *c-*, as illustrated in (16a,b) (A. Mattina 2000).



arguments which are not proper names or demonstratives are obligatorily marked by either the determiner *iʔ*, the oblique marker *t*, or both. Locative adjuncts are introduced by one of several locative particles which are in complementary distribution with *t*.

#### 4.4.1 Subject Arguments

The determiner *iʔ* must introduce a non-proper noun or non-demonstrative subject argument. Oblique marked nominals are categorically banned in subject positions for both transitive (17a,b) as well as morphologically intransitive (18a,b) and lexically intransitive (18c) predicates.<sup>14</sup>

- (17) a. *iʔ/\*t*        *sqəltmíx<sup>w</sup>*    *wik-s*                    *iʔ*    *tkłmilx<sup>w</sup>*.  
          DET/\*OBL    man            see-[DIR]-3SG.ERG    DET    woman  
          The man saw the woman.
- b. *iʔ/\*t*        *kəkwáp*    *talíʔ*    *ǰmink-s*                    *iʔ*    *s-čim*.  
          DET/\*OBL    dog            really   like-[DIR]-3SG.ERG    DET    NOM-bone  
          The dog really likes the bone.
- (18) a. *iʔ/\*t*        *sx<sup>w</sup>-lk-am*            *cmay*    *c-kic-x*.  
          DET/\*OBL    OCC-bound-MID    EPIS    CISL-arrive-INTR  
          A policeman might come.
- b. *iʔ/\*t*        *sqilx<sup>w</sup>*                    *ac-trq-ám*.  
          DET/\*OBL    native.people    CUST-kick-MID  
          The native people are dancing.
- c. *iʔ/\*t*        *tkłmilx<sup>w</sup>*    *ʔayǰ<sup>w</sup>t*.  
          DET/\*OBL    woman            tired  
          The woman is tired.

<sup>14</sup>Although N. Mattina (1996b, 41) has noticed that ergative subjects allow optional oblique-marking in the Okanagan Valley dialect, and Kroeber (1999) makes the same observation for other languages of the Southern Interior, speakers of the Upper Nicola dialect do not use oblique marking on ergative subjects, instead relying on word order to disambiguate a DP's grammatical status. Ergative subjects in Hébert's Upper Nicola corpus are not marked as oblique.

#### 4.4.2 Core Objects vs. Quasi-Objects

The distribution of *iʔ* versus *t* in their roles of introducing objects is syntactically predictable (N. Mattina 1996b, 45),<sup>15</sup> as illustrated by (19) and (20) below. The determiner *iʔ* introduces objects of formally transitive predicates, as in (19a). Oblique arguments (a.k.a quasi-objects) of morphologically intransitive predicates (20a) will always be introduced by the oblique marker.<sup>16</sup>

- (19) a. kʷúl-ən                      iʔ      yámǰʷaʔ.  
           make-[DIR]-1SG.ERG    DET   cedar.bark.basket  
           I made the basket.
- b. \*kʷúl-ən                      yámǰʷaʔ.  
           make-[DIR]-1SG.ERG    cedar.bark.basket  
           I made the basket.
- c. \*kʷúl-ən                      t      yámǰʷaʔ.  
           make-[DIR]-1SG.ERG    OBL   cedar.bark.basket  
           I made the basket.
- d. \*kʷúl-ən                      iʔ      t      yámǰʷaʔ.  
           make-[DIR]-1SG.ERG    DET   OBL   cedar.bark.basket  
           I made the basket.
- (20) a. kn              s-c-kʷúl-əm                      t      latáp.  
           1SG.ABS    NOM-CUST-make-MID    OBL   table  
           I'm making a table.
- b. \*kn              s-c-kʷúl-əm                      latáp.  
           1SG.ABS    NOM-CUST-make-MID    table  
           I'm making a table.

<sup>15</sup>N. Mattina (1996b, 46) notes for the Okanagan Valley dialect that 'case marking is not a completely reliable means of identifying the grammatical relation of an NP'. It does however seem to be a more reliable means in the Upper Nicola dialect since (i) oblique quasi-objects cannot be introduced by *iʔ*, and (ii) ergative subjects cannot be marked oblique by *t*, unless they are passives (cf. 31b, for example).

<sup>16</sup>N. Mattina (1996b, 46) gives data showing that *iʔ* and *t* may co-occur in introducing a quasi-object. This may represent a dialect variation, since the Upper Nicola speakers I have worked with do not allow this.



- c. \*kn        s-c-k<sup>ʷ</sup>úl-ə̃m        iʔ    latáp.  
               1SG.ABS NOM-CUST-make-MID DET table  
               I'm making a table.
- d. \*kn        s-c-k<sup>ʷ</sup>úl-ə̃m        iʔ    t        latáp.  
               1SG.ABS NOM-CUST-make-MID DET OBL table  
               I'm making a table.

Bare nominals (excluding proper names) are ungrammatical in non-predicative positions (19b,20b).<sup>17</sup> The oblique marker *t* may not introduce the object of a formally transitive predicate (19c), and the determiner *iʔ* may not introduce the oblique argument of a morphologically intransitive predicate (20c). Finally, *iʔ* and *t* together cannot mark an absolutive argument (19d) or oblique argument (20d).

Oblique arguments of intransitive predicates are quasi-objects<sup>18</sup>, meaning that they are semantically entailed by the predicate, but not registered by agreement morphology (N. Mattina 1996b, 45). In section 5.3.2, I analyze quasi-objects as semantically incorporated nouns (Van Geenhoven, 1998). When there is no oblique argument, then absolutive-subject intransitive predicates inflected with middle suffix *-m* (21) or intransitivizers *-(míx)aʔx/-x* (22) may indicate an activity in progress; however in actuality, many of these predicates are infelicitous without objects (e.g. 23):

- (21) a. kn        p̣ʷq-am.  
               1SG.ABS cook-MID  
               I'm baking.
- b. kn        ʃmínk-ə̃m.  
               1SG.ABS want-MID  
               I want some.

<sup>17</sup>A. Mattina (1973, 112) discusses an indefinite/definite contrast between bare nominal complements (e.g. *wíkən sqilx*<sup>w</sup> ‘I saw some people’) and DP complements (e.g. *wíkən iʔ sqilx*<sup>w</sup> ‘I saw the/those people’). Indeed, this is possible in other languages of the Southern Interior (cf. chapter 9), but my own research with the Upper Nicola dialect suggests that bare nominal complements are always ungrammatical in this dialect, perhaps under influence from Thompson.

<sup>18</sup>This term comes from Davis and Matthewson (2003). N. Mattina (1996b, 42) refers to these as *generic objects*.

- (22) a. kn                    s-c-k<sup>w</sup>ul-x.  
1SG.ABS NOM-CUST-make-INTR  
I'm working.
- b. kn                    s-c-p<sup>y</sup>q-mix.  
1SG.ABS NOM-CUST-cook-INTR  
I'm cooking.
- (23) a. #kn                wík-əm.  
1SG.ABS see-MID  
I'm seeing. (Consultant: You have to say what you see.)
- b. kn                    wík-əm t        spəplína?.  
1SG.ABS see-MID OBL rabbit  
I saw a rabbit.

Morphologically intransitive constructions (21-23) do not permit anaphoric reference to a previously introduced discourse referent (cf. chapter 5), but for transitive constructions, even in cases where a DP is not overt, a null pronoun is present (24) which takes a discourse-salient overt DP, or else a contextually salient referent, as an antecedent (cf. Davis and Matthewson (2003) for Lillooet, Gerdts and Hukari (2003) for Halkomelem).

- (24) a. n-ɬɪpt-əm-ən [Ø<sub>DP</sub>].  
n-forget-MIN[?]-[DIR]-1 SG.ERG  
I forgot it.
- b. nɪk'-ənt-x<sup>w</sup> [Ø<sub>DP</sub>].  
cut-DIR-2SG.ERG  
You cut it.

Now consider the following pair (25a,b) which on the surface seem quite similar, both involving an unergative predicate *ksǎx<sup>w</sup>úpaʔx* ‘x will win’, but which actually denote two different propositions. If the nominal *sənkǎʔaʔsqáǎxʔ* ‘horse’ is introduced by the determiner *iʔ*, it is interpretable only as the subject (25a). If it is introduced by the oblique marker *t*, it is interpretable only as an oblique, quasi-

object (25b).

(25) a.  $ks-\acute{\lambda}x^w\acute{u}p-a?x$   $i?$   $s\acute{a}nk\acute{t}ca?sq\acute{a}\acute{x}a?$ .

FUT-win-INCEPT DET horse

The/(That) horse is going to win.

\*He's going to win the horse.

b.  $ks-\acute{\lambda}x^w\acute{u}p-a?x$   $t$   $s\acute{a}nk\acute{t}ca?sq\acute{a}\acute{x}a?$ .

FUT-win-INCEPT OBL horse

He's going to win a horse.

\*The/(that) horse is going to win.

It is also worth noting that morphologically similar predicates may show different selectional properties. Consider  $ksk^w\acute{u}l\acute{a}a?x$  “will be born” (26) and  $ksk^w\acute{u}la?x$  “will make” (27). The former is unaccusative, and the latter is unergative, as evidenced by the distribution of  $i?$  and  $t$ .<sup>19</sup> Thus, “will be born” may only take an experiencer subject DP as an argument (26), since it is not semantically transitive, whereas “will make” may take an  $i?$  DP as a subject argument (27c), but not as an object (27b).

(26) a.  $ks-k^w\acute{u}l-\acute{a}l-a?x$   $i?$   $s-k^w-k^w\acute{y}y-m-\acute{a}lt$ .

FUT-make-FRED-INCEPT DET NOM-IREN-small-m-child

The baby's gonna be born.

b.  $*ks-k^w\acute{u}l-\acute{a}l-a?x$   $t$   $s-k^w-k^w\acute{y}y-m-\acute{a}lt$ .

FUT-make-FRED-INCEPT OBL NOM-IREN-small-m-child

The baby's gonna be born.

c.  $*i?$   $tk\acute{t}milx^w$   $ks-k^w\acute{u}l-\acute{a}l-a?x$   $i?$   $s-k^w-k^w\acute{y}y-m-\acute{a}lt$ .

DET woman FUT-make-FRED-INCEPT DET NOM-IREN-small-m-child

\*The woman will be borned the child.

<sup>19</sup>See Davis (1997) for arguments that Salish roots are uniformly associated with a single internal argument, hence unaccusative. Though his arguments presumably apply to Okanagan as well, I use the terms ‘unaccusative’ and ‘unergative’ descriptively to distinguish intransitive predicates which take experiencer DP arguments from those which take agentive DP arguments, without making any deeper syntactic claims concerning unaccusativity in Okanagan.

- (27) a. ks-k<sup>w</sup>úl-aʔx            t            pwmin.  
           FUT-make-INCEPT OBL drum  
           He's gonna make a drum.
- b. \*ks-k<sup>w</sup>úl-aʔx            iʔ            pwmin.  
           FUT-make-INCEPT DET drum  
           He's gonna make a drum.
- c. iʔ    sqəltmíx<sup>w</sup> ks-k<sup>w</sup>úl-aʔx            t            pwmin.  
           DET man            FUT-make-INCEPT OBL drum  
           The man will make a drum.

#### 4.4.3 The Syntactic Status of *iʔ* and *t*

The absence of bare nominal arguments in Okanagan suggests that *iʔ* is necessary for converting a predicate nominal into an argument (28-30). This is claimed to be a core property of the D position (Longobardi, 1994). In other words, bare NPs can never be arguments in Okanagan, even in generic contexts (30).<sup>20</sup>

- (28) a. \*[pəptwínax<sup>w</sup> <sub>NP</sub>] [səx<sup>w</sup>-maʔmáyaʔ-m <sub>NP</sub>].  
           old.woman            OCC-teach-MID  
           The teacher is an old woman.
- b. [pəptwínax<sup>w</sup> <sub>NP</sub>] [iʔ    səx<sup>w</sup>-maʔmáyaʔ-m <sub>DP</sub>].  
           old.woman            DET OCC-teach-MID  
           The teacher is an old woman.
- (29) a. \*[wík-ən <sub>VP</sub>]            [sqilx<sup>w</sup> <sub>NP</sub>].  
           see-[DIR]-1SG.ERG native.people  
           I saw native people.
- b. [wík-ən <sub>VP</sub>]            [iʔ    sqilx<sup>w</sup> <sub>DP</sub>].  
           see-[DIR]-1SG.ERG DET native.people  
           I saw native people.

<sup>20</sup>See section 5.2.8 for a semantic analysis of generic interpretations of Okanagan *iʔ* DPs.

- (30) a. \*[skəmxíst<sub>NP</sub>] [ǰmink-s<sub>VP</sub>] [iʔ síaʔ<sub>DP</sub>].  
 bear like-[DIR]-3SG.ERG DET saskatoon.berry  
 Bears like saskatoon berries.
- b. [iʔ skəmxíst<sub>DP</sub>] [ǰmink-s<sub>VP</sub>] [iʔ síaʔ<sub>DP</sub>].  
 DET bear like-[DIR]-3SG.ERG DET saskatoon.berry  
 Bears like saskatoon berries.

The oblique marker *t* and the preposition-like locative particles *l*, *tl*, *kl* may co-occur with the determiner *iʔ* in certain contexts, as shown for example in (31) and (32) below. The oblique marker *t* co-occurs with the determiner *iʔ* in specific grammatical environments: i.e. when marking the agent of a passive (31a,b)<sup>21</sup> or an instrument (31c). The locative particles in (32) are in complementary distribution with the oblique marker *t*, suggesting that they occur in the same syntactic position.<sup>22,23</sup>

- (31) a. iʔ ylmíx<sup>w</sup>əmə iʔ kəwáp-s x<sup>w</sup>úy-ǰt-əmə [iʔ t  
 DET chief DET horse-3SG.POSS go-APPL-PASS DET OBL  
 sq<sup>w</sup>siʔ-s].  
 son-3SG.POSS  
 The chief's horse was taken by his son.
- b. kl-nt-əmə [iʔ t skəmxíst].  
 chase-DIR-PASS DET OBL bear  
 He was chased by the bear.
- c. ʔap-nt-ís [iʔ t s-wlwlm-ink].  
 shoot-DIR-3SG.ERG DET OBL NOM-iron-weapon  
 He shot it with a gun.

<sup>21</sup>I use the term 'passive' as a purely descriptive term. See N. Mattina (1996b, 40-41) for arguments that these constructions may not be syntactically intransitive.

<sup>22</sup>In Northern Interior Salish languages, equivalents of the Okanagan locative particles *l*, *tl*, *kl* and the oblique marker *t* always *precede* the determiners. This makes them straightforwardly analyzable as prepositions (P) which select for DP complements. In Southern Interior Salish, however, these particles always *follow* determiners (Kroeber, 1999).

<sup>23</sup>A. Mattina (1973) refers to these locative markers as follows: *l* 'locational' meaning "point of time or place at which..." (p. 116); *tl* 'ablative' indicating "motion from" (p. 119); and *kl* 'allative' meaning "motion to/into" (p.120).

- (32) a. miyəs-tiq<sup>w</sup>əlq<sup>w</sup> [iʔ tɪ ɬəcúp-s].  
           more-tall           DET LOC little.sister-3SG.POSS  
           She is taller than her little sister.
- b. ʔak[ɬ]-s-š<sup>w</sup>úsəm [iʔ kɪ tɪk<sup>w</sup>t].  
           HAVE-NOM-soap.berries DET LOC lake  
           There are some soap-berries next to the lake.
- c. š<sup>w</sup>ayqn iʔ smik<sup>w</sup>t [iʔ l n-km-qn-iɬx<sup>w</sup>].  
           pile DET snow DET LOC n-km-head-house  
           The snow piled on the roof.

Data like (31) are strong evidence that the oblique marker *t* is not a determiner. In chapter 5, I discuss a semantic restriction on specific readings of oblique arguments of formally intransitive predicates, and conclude that *t* is semantically vacuous, and that quasi-objects are semantically incorporated.<sup>24</sup>

#### 4.4.4 Arguments of Lexical Intransitives

Adjectival and nominal predicates, although lexically intransitive, are not marked as such by overt morphology.<sup>25</sup> Like other predicates, these predicates also select for *iʔ* DP subject arguments (33a), and may not take a bare nominal as a subject (33b). *iʔ* and *t* may not co-occur in this context (33c).

- (33) a. tɪq<sup>w</sup>əlq<sup>w</sup> iʔ xɪxwtəm  
           tall DET little.girl  
           The little girl is tall.
- b. \*tɪq<sup>w</sup>əlq<sup>w</sup> xɪxwtəm  
           tall little.girl  
           The little girl is tall.

<sup>24</sup>I claim that intransitivizers (e.g. -əm) encode semantic incorporation in Okanagan (Van Geenhoven, 1998). See section 5.3.2.

<sup>25</sup>N. Mattina (1996b) refers to these as *simple intransitives*.

- c. \*<sup>ʔ</sup>tíq<sup>w</sup>əlq<sup>w</sup> iʔ t xíxwtəm  
 tall DET OBL little.girl  
 The little girl is tall.

At first glance, (34a) below seems to show that adjectives may also take subject arguments introduced by the oblique marker *t*, but this is not the case. (34a) is an attributively-modified CNP (see section 4.2), with a null pronominal argument (Davis et al., 1997). The fact that a demonstrative can occur as an argument of the CNP (34b) is evidence for a null pronoun in (34a) (as well as the fact that these are often used in contexts in which a referent can be pointed out). (34c) is ungrammatical because the *iʔ* DP and demonstrative are construed as two separate arguments, yet the predicate is intransitive.<sup>26</sup>

- (34) a. [<sup>ʔ</sup>tíq<sup>w</sup>əlq<sup>w</sup> t xíxwtəm *CNP*] [∅ *DP*]  
 tall ATTR girl  
 That's a tall girl.
- b. [<sup>ʔ</sup>tíq<sup>w</sup>əlq<sup>w</sup> t xíxwtəm *CNP*] ixíʔ.  
 tall ATTR girl DEM  
 That's a tall girl.
- c. \*<sup>ʔ</sup>tíq<sup>w</sup>əlq<sup>w</sup> iʔ xíxwtəm ixíʔ.  
 tall DET girl DEM  
 That's a tall girl.

Similar data is shown below in (35). The CNP in (35a) can select a nominal *iʔ* DP as an argument. (35b) is ungrammatical because the adjectival predicate *ǵast* 'good' is saturated by the first DP *iʔ sqəltmíx<sup>w</sup>* 'the man', and the second DP *iʔ ylmíx<sup>w</sup>əm* 'the chief' cannot function as an adjunct.<sup>27</sup> If we made the parallel

<sup>26</sup>The demonstrative in (34c) cannot form a constituent with the *iʔ* DP to its left, and so (34c) is also ungrammatical under an interpretation equivalent to 'That girl is tall'. See section 4.6.1 for discussion of demonstrative-associated DP arguments.

<sup>27</sup>(35b) should theoretically be interpretable as a relative clause, i.e. "The man who is a chief is good", and data in chapter 6, involving main clause transitive predicates, support this as a possibility. In other words, there is evidence that NPs project covert clausal structure in certain cases. (35b) may be ungrammatical because there is a dispreference for interpreting modifying NPs as clausal in the context of a main-clause intransitive.

assumption that the oblique-marked nominal *t sqəltmíx<sup>w</sup>* in (35a) was an argument of *ǵast* ‘good’, we would incorrectly predict that this sentence too should be ungrammatical.

- (35) a. [ǵast t sqəltmíx<sup>w</sup> <sub>CNP</sub>] iʔ ylmíx<sup>w</sup>əm.  
           good ATTR man DET chief  
           The chief is a good man.
- b. \*ǵast iʔ sqəltmíx<sup>w</sup> iʔ ylmíx<sup>w</sup>əm.  
           good DET man DET chief  
           The chief is a good man.

Simple nominal predicates (36) also fall under the classification of ‘lexical intransitive’, and their selectional restrictions are the same as the adjectives in (33).

- (36) a. q<sup>w</sup>ʔay-lqs iʔ ǵəǵ-ǵǵáp.  
           black-robe DET RED-grown  
           The old man is a priest.
- b. \*q<sup>w</sup>ʔay-lqs ǵəǵ-ǵǵáp.  
           black-robe RED-grown  
           The old man is a priest.
- c. \*q<sup>w</sup>ʔay-lqs iʔ t ǵəǵ-ǵǵáp.  
           black-robe DET OBL RED-grown  
           The old man is a priest.

#### 4.4.5 Ditransitives

Themes of benefactive (a.k.a. ‘dative’ or ‘transitive’) applicative sentences, which are characterized by the *-xt-* morpheme (Gerdts and Kiyosawa, 2010), are introduced by the oblique marker (37a,b) (N. Mattina (1996b), A. Mattina (2001), Barthmaier (2002)). The determiner is not grammatical in this position.<sup>28</sup> Agent

<sup>28</sup>Although cf. N. Mattina (1993b) for data showing that *iʔ* may sometimes co-occur with *t* when introducing an applicative theme. This would make them similar to locative adjuncts, which often but not always have co-occurring overt determiners. Upper Nicola speakers do not allow *iʔ* in this



(37) a. kʷul'-xt-n iʔ ylmíx<sup>w</sup>əm \*iʔ/t yámǰ̃<sup>w</sup>aʔ  
make-BEN-1SG.ERG DET chief \*DET/OBL cedar.bark.basket  
I made the chief a basket.

b. c-ʔúk<sup>w</sup>-xt-m-n \*iʔ/t ʔaʔúsaʔ.  
CISL-bring-BEN-2SG.ABS-1SG.ERG \*DET/OBL egg  
I brought you an egg.

c. iʔ tkɫmilx<sup>w</sup> x<sup>w</sup>iç'-xt-s iʔ sqəltmíx<sup>w</sup> t  
DET woman give-BEN-3SG.ERG DET man OBL  
yámǰ̃<sup>w</sup>aʔ.  
cedar.bark.basket  
The woman gave the man a basket.

(38) a. n-číw'-t-en-ləx                                  iʔ/\*t                      lasyót-səlɬ.  
n-wash-APPL-1SG.ERG-3PL.ABS DET/\*OBL dish-3PL.POSS  
I washed their dishes.

b. k<sup>w</sup>u                c-x<sup>w</sup>ič'-t-x<sup>w</sup>                                  iʔ/\*t                      lpot.  
1SG.ABS CUST-give-APPL-2SG.ERG DET/\*OBL cup  
Pass me the cup.

syntactic context.

#### 4.4.6 Possessor Intransitives

Main clause predicates can sometimes be inflected with possessor subject morphology, rather than absolutive or ergative morphology (cf. section 3.2).<sup>29</sup> They are formally intransitive, lacking any transitivizer, but are semantically and syntactically transitive, and introduce their patient arguments with an *iʔ* determiner.<sup>30</sup> Examples of main clause possessor intransitives are given below in (39).

- (39) a. *i-ks-ʔaws-pəq<sup>w</sup>ɪləx-əm*      *iʔ*    *sqəltmíx<sup>w</sup>*    *iʔ*    *mut*    *kl*    *ʔik<sup>w</sup>t*.  
 1SG.POSS-FUT-go-visit-MID DET man            DET live LOC lake  
 I'm going to visit the man that lives by the lake.
- b. *i-ks-ʔlít-əm*                              *iʔ*    *s-ləʔ-łáʔt*                      *uʔ*    *nix<sup>w</sup>*  
 1SG.POSS-FUT-invite-MID DET NOM-IREN-friend CONJ also  
*i(n)-ʔqáqcaʔ*.  
 1SG.POSS-older brother  
 I am going to invite my friends, and my older brother will too.
- c. *in-ʔmínk*                      *iʔ*    *ník-mən*.  
 1SG.POSS-want DET cut-INSTR  
 I want the knife.

In certain contexts, oblique arguments and *iʔ* DP patients are semantically indistinguishable, though note that subject agreement morphology on the main predicate must vary appropriately (40a,b).

- (40) a. *kn*              *ʔmínk-əm*    *t*    *spəplínaʔ*    *iʔ*    *kə-kíp*    *iʔ*  
 1SG.ABS want-MID OBL rabbit            DET IREN-soft DET  
*sípiʔ-s*.  
 skin-3SG.POSS  
 I want a rabbit's soft fur.

<sup>29</sup>N. Mattina (1996b, 56, section 2.2.1.1) distinguishes between *possessor* morphology, which attaches only to nouns, and *genitive* morphology which attaches only to verbs. The two paradigms are identical in form, as shown in Tables 3.3 and 3.4, and so I label them all as POSS.

<sup>30</sup>N. Mattina (1996b, 39) shows that for a subset of possessor intransitive predicates, namely those inflected for future/irrealis by the prefix *ks-*, a transitivizer *-nt-* is present for cases with plural subjects but absent with singular subjects.

- b. in-ǰmínk            iʔ    spəplínaʔ iʔ    kə-kíp    iʔ    sípiʔ-s.  
1SG.POSS-want DET rabbit        DET IRED-soft DET skin-3SG.POSS  
I want a rabbit's soft fur.

#### 4.4.7 The Oblique Marker in Other Environments

Non-locative adverbs are often introduced by the oblique marker *t*. These are ungrammatical both with co-occurring determiners, as well as a determiner in lieu of the oblique marker (41):

- (41) a. (\*iʔ)    t       spiʔsciɬt   kiʔ       nik-s                          iʔ       spí:cən.  
           (\*DET) OBL yesterday COMP cut-[DIR]-3SG.ERG DET rope  
           It was yesterday that he cut the rope.
- b. kn              ʔaws-píḫ-əm (\*iʔ)    t       spiʔsciɬt.  
           1SG.ABS go-hunt-MID (\*DET) OBL yesterday  
           I went hunting yesterday.
- c. cmay    ṣast    i-ks-c-ʔítx    ʕapnáʔ (\*iʔ)    t  
           EPIS good 1SG.POSS-FUT-CUST-sleep now        (\*DET) OBL  
    klax<sup>w</sup>.  
    evening  
           Maybe I will sleep well tonight.
- d. (\*iʔ)    t       s-ʔistk,              taʔlíʔ kn              k'wúl-əm.  
           (\*DET) OBL NOM-winter very 1SG.ABS work-MID  
           Last winter, I worked a lot.

Unlike oblique arguments of intransitive predicates, the ungrammaticality of the *i?* determiner here cannot be attributed to selectional restrictions on the main predicate, since the adjuncts illustrated in (41) are more on par syntactically with the locative adjuncts which *do* allow *i?* determiners to co-occur with a locative marker (cf. 32).

#### 4.4.8 This ‘Predictability’ does not hold across Salish

The syntactic predictability of oblique marking in Okanagan contrasts sharply with the facts in related languages like Lillooet (Northern Interior Salish), where determiner choice does not automatically co-vary with the transitivity of the main predicate. (42) shows that in Lillooet, unlike Okanagan (43), different determiners may be used in the same syntactic context.<sup>31</sup>

- (42) a. ǰát-min'-as                      ti        x<sup>w</sup>ík-tən-a.  
want-MIN.TR-3SG.ERG DET cut-INSTR-EXIS  
He wants the/a knife. (Lillooet, Henry Davis, p.c.)
- b. ǰát-min'-as                      ku        x<sup>w</sup>ík-tən.  
want-MIN.TR-3SG.ERG DET cut-INSTR  
He wants a knife. (Lillooet, Henry Davis, p.c.)
- (43) a. \*ixíʔ ǰmínk-əm iʔ        ník-mən.  
DEM want-MID DET cut-INSTR  
He wants the knife.
- b. ixíʔ ǰmínk-əm t        ník-mən.  
DEM want-MID OBL cut-INSTR  
He wants a knife.
- c. (ixíʔ) ǰmink-s                      iʔ        ník-mən.  
DEM want-[DIR]-3SG.ERG DET cut-INSTR  
He likes the knife.
- d. \*(ixíʔ) ǰmink-s                      t        ník-mən.  
DEM want-[DIR]-3SG.ERG OBL cut-INSTR  
He likes that knife.

<sup>31</sup>Both assertion-of-existence *ti...a* and non-assertion-of-existence *ku* may be used in the same syntactic context, but only if the context is intensional (Matthewson, 1998). Squamish (a.k.a. Skwxwú7mesh) patterns with Lillooet in allowing both deictic and non-deictic determiners in the same syntactic context (Gillon, 2006).

e. ʔmink-s                      ixíʔ   t       ník-mən.  
 want-[DIR]-3SG.ERG   DEM   OBL   cut-INSTR  
 He likes that knife.

The apparent availability of both *iʔ* and *t* for Okanagan (43c,d) is not an exception to this rule, since these two examples involve different syntactic structures. For (43c), the demonstrative denotes the 3rd person subject and the *iʔ* DP is the object argument of the transitive predicate. For (43d), the obligatory demonstrative must denote the knife, and forms a discontinuous DP constituent with the final oblique-marked nominal *t níkmən*. The demonstrative and oblique-marked nominal transparently form a constituent in (43e).<sup>32</sup> Evidence for this analysis comes from the fact that without the initial demonstrative in (43d), the sentence is ungrammatical, while the demonstrative in (43c) is optional, given an anaphoric subject. (43c-43e) therefore have DP object arguments.

#### 4.4.9 Summary

The main factors determining whether a nominal is introduced by the determiner *iʔ*, the oblique marker *t*, or both, are the selectional properties of the main predicate.<sup>33</sup> The somewhat simplified picture is that *iʔ* introduces subjects of both transitives and intransitives, and transitive objects, while *t* introduces passive agents, intransitive quasi-objects, and other temporal adjuncts (N. Mattina 1996b). The co-occurrence of *iʔ* and *t* is only possible in a restricted set of grammatical contexts (cf. 32). The basic distribution of the determiner *iʔ* and the oblique marker *t* across the major grammatical and thematic relations is shown below in Table 1, with cross-referencing to relevant examples.<sup>34</sup>

It is important to keep in mind that the oblique marker *t* appears to have (at

<sup>32</sup>The exact difference between a demonstrative-associated oblique NP and a demonstrative-associated *iʔ* DP is elusive, but becomes important in the chapter 8. I assume that the demonstrative in (43d) is undergoing proclisis, similar to the enclisis process documented for Lillooet demonstratives (Davis, 2010c).

<sup>33</sup>N. Mattina (2002, 20) makes the same point for Moses-Columbian, stating that “determiner choice is dictated by the clause head”.

<sup>34</sup>The determiner *iʔ* is represented in parentheses in table 4.1 since it is not present for proper name passive agents, or locative adjuncts. It seems to be optional in some cases for instrumental adjuncts for reasons I cannot yet determine.

**Table 4.1:** Distribution of *iʔ* and *t* across Grammatical Categories

|    |                                |               |                                       |           |
|----|--------------------------------|---------------|---------------------------------------|-----------|
| 1  | Subjects                       | <i>iʔ</i>     | -                                     | ex. 17-18 |
| 2  | Core objects                   | <i>iʔ</i>     | -                                     | ex. 19-20 |
| 3  | Quasi-objects                  | -             | <i>t</i>                              | ex. 19-20 |
| 4  | Benefactive Applicative Theme  | -             | <i>t</i>                              | ex. 37    |
| 5  | Possessional Applicative Theme | <i>iʔ</i>     | -                                     | ex. 38    |
| 6  | Possessor Patients             | <i>iʔ</i>     | -                                     | ex. 39    |
| 7  | Passive Agents                 | ( <i>iʔ</i> ) | <i>t</i>                              | ex. 31a,b |
| 8  | Instrumental adjuncts          | ( <i>iʔ</i> ) | <i>t</i>                              | ex. 31c   |
| 9  | Temporal adjuncts              | -             | <i>t</i>                              | ex. 41    |
| 10 | Locative adjuncts              | ( <i>iʔ</i> ) | { <i>k̑l</i> , <i>l</i> , <i>tl</i> } | ex. 32    |

least) two functions: (i) it case-marks a nominal as an oblique argument (e.g. 20a); (ii) it links a nominal head to an attributive modifier (e.g. 3a).

I now discuss the internal syntactic structure of Okanagan DPs.

## 4.5 Internal Structure of DP (and other Nominal Projections)

In this section I weigh evidence for three possible structural analyses of Okanagan DPs, and associated super-structure. The major challenge here is to account for the determiner-oblique/locative ordering characteristic of Southern Interior Salish. The three hypotheses are as follows:

- a. The *KP hypothesis* holds that oblique and locative markers are case-marking (K) heads which are base generated internal to DP, i.e. in their surface position.
- b. The *PP hypothesis* holds that oblique and locative markers are prepositional heads, and undergo a surface-level prosodic inversion (Halpern, 1995) with D.
- c. The *headless relative hypothesis* holds that the determiner forms a con-

stituent with a null NP, and that this constituent is an underlying argument of a PP or KP predicate.

Deciding which of these possibilities accurately reflects the syntactic structure of Okanagan DPs is a complicated issue. I discuss some of the problems below, before settling on an analysis which posits (a) for certain Okanagan nominal projections, and (b) for others.

#### 4.5.1 *iʔ* Occurs in D Position

All three hypotheses depend on an important point: I claim that *iʔ* belongs to the functional category D. This claim is supported by the following points.

First of all, *iʔ* is probably historically cognate with the referential determiner *ye* in Shuswap (Northern Interior Salish) (Henry Davis, p.c. 2012), which has been analyzed as a determiner that occurs in D position (Gardiner, 1996).

Secondly, the semantic behavior of *iʔ* resembles more closely the so-called ‘strong’ determiners of better-studied languages like English and Italian (cf. for example Zamparelli (1995)) than any other element in Okanagan, and also includes as a subset of its interpretive possibilities the wide-scope readings characteristic of assertion-of-existence DPs in Lillooet (Matthewson, 1998, 2001) (see chapter 5), both of which support the conclusion that if Okanagan has a D determiner at all, it must be *iʔ*.

Thirdly, as data in this chapter have shown, *iʔ* is necessary for converting a predicate nominal into an argument (Longobardi, 1994).

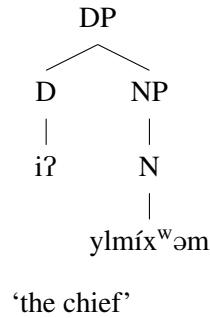
#### 4.5.2 Three Hypotheses

Under the simplest analysis, *iʔ* is a D-head which selects for an NP complement (Figure 4.1). But recall that oblique and locative markers occur between the determiner and its NP complement, which may be evidence for a DP-internal functional projection for Okanagan (and other languages of the Southern Interior), a ‘Case phrase’ of sorts (Kroeber, 1986).<sup>35</sup> I refer to this hypothesis as the case phrase *KP*

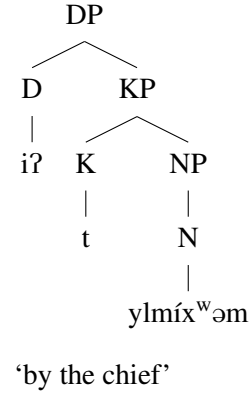
<sup>35</sup>Bittner and Hale (1996) posit a case phrase (KP) as the nominal equivalent of CP in the verbal domain. They assume that K selects a DP for an argument, similar to a preposition, rather than the other way around, which must be the case for Okanagan under this analysis.

hypothesis (Figure 4.2).

**Figure 4.1:** Okanagan *i?* DP



**Figure 4.2:** The KP hypothesis



The oblique marked DP structure in Figure 4.2 represents a passive agent or instrumental adjunct under the KP analysis. If we remove the D shell in Figure 4.2, what remains is a KP, which is the category of an oblique marked quasi-object of a formally intransitive predicate. Analyzing quasi-objects as structurally less complex than DP is consistent with their non-referential semantics (Gillon, 2009b). A theory-internal problem concerning case-assignment arises from this analysis, however: Normally, a case-marker will assign case to the head of its complement phrase, but in Figure 4.2, case-assignment must occur in an ‘upwards’ fashion.

For cases where a locative marker occurs to the right of a determiner (cf. Figure 4.2), an alternative analysis may be motivated: a late-stage, prosodic inversion of the two particles (Halpern, 1995).<sup>36</sup> This second hypothesis assumes a PP structure (*PP hypothesis*), as in Figure 4.3, and has the benefit of resolving the problem of case-assignment which the KP hypothesis faces.

<sup>36</sup>It is important to note that the proto-Salish ordering was almost certainly preposition-initial (Kroeber, 1999), which implies that the Southern Interior innovated the modern surface order. Superficially similar observations may be made for the ordering of absolutive pronominal pro-clitics with respect to specific complementizers. E.g. the 1st singular absolutive pro-clitic *kn* occurs before the temporal complementizer *#(a?)*, but after other complementizers like *kʷa?* ‘because’ or *mi* ‘future.’ Whether or not this case can also be explained by a late-stage inversion is unclear.



**Figure 4.3:** The PP Hypothesis and Prosodic Inversion: ‘towards the chief’

$$\begin{array}{ccc} [\text{'kl} [\text{i? ylmíx}^w \text{əm}_{DP}]_{PP}] & \implies & [\text{i? kl-}[\text{ylmíx}^w \text{əm}_{DP}]_{PP}] \\ \text{LOC DET chief} & & \text{DET LOC chief} \end{array}$$

The prosodic inversion represented in Figure 4.3 assumes that the oblique and locative particles in Okanagan are syntactically Ps, but that Okanagan Ps are proclitics which require a prosodic word as a host, and that nouns, but not *i?* determiners, are prosodic words. A preposition like *kl* will therefore move to the right of *i?* in order to attach to an NP host.<sup>37</sup>

Support for the PP hypothesis comes from the fact that these locative structures may function syntactically as predicates (44) (Kroeber, 1999, 61), and that semantically they denote properties of individuals.<sup>38</sup> In (44a) for example, *i? kl sən-kʔáw-mən* ‘at the church’ may be analyzed as denoting the set of individuals that stand in a particular spatial relation to the church, and in (44b), *i? l nkmqniłx<sup>w</sup>* may be analyzed as denoting the set of individuals ‘on the roof’, which serves to restrict the main clause predicate *x<sup>w</sup>ayqn* ‘to pile’.

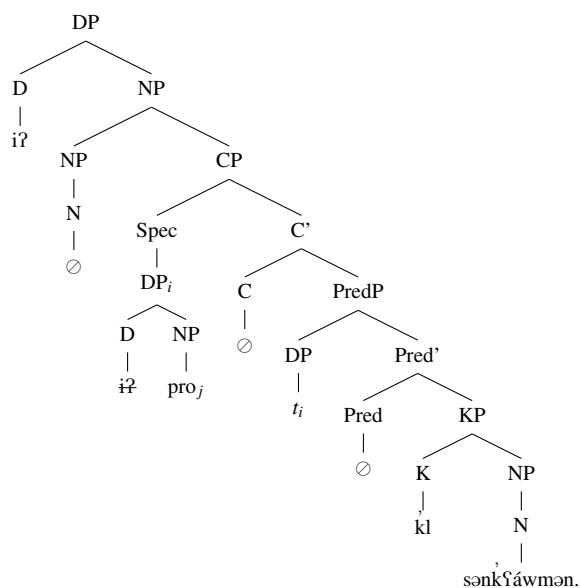
- (44) a. John (i?) kl sən-kʔáw-mən.  
           John (DET) LOC LOC-pray-INSTR  
           John is at the church.
- b. x<sup>w</sup>ayqn i? smik<sup>w</sup>t i? l n-km-qn-iłx<sup>w</sup>.  
       pile DET snow DET LOC n-km-head-house  
       The snow piled on the roof.

<sup>37</sup>This would then technically be a case of “host-splitting”, where *i?* is separating the preposition from its host, and assumes that */i? NP/* does not form a prosodic word.

<sup>38</sup>Kroeber (1999, 62) notes that PPs can be predicates in only some Salish languages, and that their distribution is different than that of nominal and verbal predicates. In Okanagan, too, PPs are not always acceptable as main clause predicates: examples like (44a) below are not consistently judged grammatical, regardless of the presence or absence of a determiner. It remains unclear why this should be the case, or why there should be speaker variation with regards to the acceptability of locative phrase predicates. Under Baker’s (2003) analysis, Ps are fundamentally functional rather than lexical categories, but ‘intrude’ into the lexical category domain in some languages. The Salish pattern would certainly be consistent with his view. In any case, locative phrases are marginally acceptable as predicates in Okanagan.

Note that the determiner in locative phrases is not always present (cf. 44a). As such, it is worthwhile considering whether or not the apparent optionality of the determiner is syntactically significant: i.e. the possibility that with the determiner, a locative phrase is a DP, while without, it is a PP where P selects directly for an NP. This brings us to the third hypothesis, which saves the interpretation of the locative phrase under a KP analysis, and potentially, the KP analysis itself. The analysis involves treating locative phrases with overt determiners as headless relative clause DPs (cf. section 4.3 above, and chapter 6). This possibility is represented below as Figure (4.4).

**Figure 4.4:** The Headless Relative Hypothesis



‘the (one who is) at the church’

In Figure 4.4, the initial *i?* determiner is introducing a null NP, which is itself modified by a non-verbal predication relative clause. A double-determiner filter (Davis, 2010a) ensures that only one of the determiners is actually pronounced. The headless relative analysis potentially explains (44a) under an equative inter-



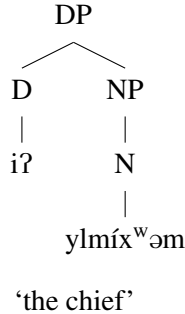
### 4.5.3 Analysis

I will assume the PP hypothesis for passive agents and locative obliques, with prosodic inversion of the preposition and determiner. This approach best explains the predicative semantics of locative-marked DPs, the selectional restrictions on passivized predicates, and fits nicely with the description of a semantically meaningful locative particle *t* meaning ‘source’ (A. Mattina 1973): *t* is a preposition in these cases. For core *i?* DP arguments, I do not assume that there is a null-case marking preposition selecting for the DP. For locative obliques without overt determiners, I do not assume that there is a null determiner, but rather that P can select directly for NP.

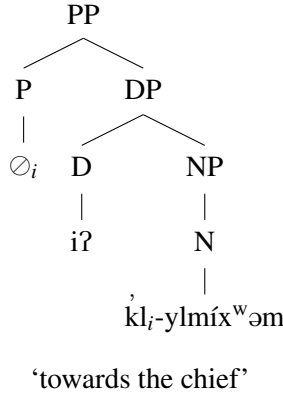
For quasi-objects of intransitive predicates, I assume the KP analysis. This means that quasi-objects are structurally less complex than full DPs. The oblique marker is a K-head for these cases.<sup>41</sup> This analysis is consistent with a noun-incorporation analysis of quasi-objects, which I present in chapter 5.

The structures I assume are as follows:

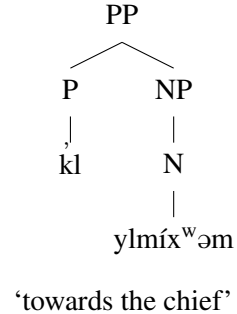
**Figure 4.5:** Core argument



**Figure 4.6:** Locative adjunct with D

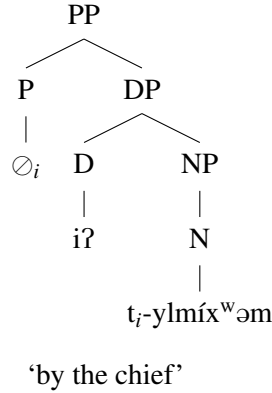


**Figure 4.7:** Locative adjunct w/o D

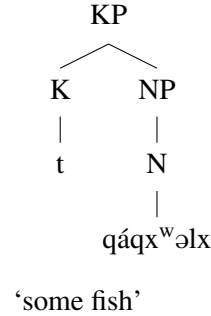


<sup>41</sup>In Moses-Columbian, though not in Okanagan, absolutive DPs are optionally introduced by a particle *wa* (Willett, 2003). As in Okanagan however, locative markers occur to the right of determiners. If locative markers in Moses-Columbian undergo prosodic inversion with determiners (the PP hypothesis), but the particle *wa* does not (the KP hypothesis), Moses-Columbian may be argued to have two separate case-marking positions, which lends indirect support to the argument I am making for Okanagan, namely, separating P from K.

**Figure 4.8:** Passive agent or instrumental adjunct



**Figure 4.9:** Quasi-object



In sum, the implication is that while locative markers are *always* prepositions, the oblique marker *t* is only a preposition when it marks a passive agent or instrument (i.e. contexts in which an *i?* determiner co-occurs). When it introduces a quasi-object, it is a K-head (i.e. contexts in which an *i?* determiner may not co-occur).

Proper names support this view of DP structure, since they occur in all environments in which an *i?* DP may occur and, like *i?* DPs, are marked oblique when they are passive agents (46a), yet proper names occur in none of the environments in which an oblique quasi-object may occur (46b). This makes sense if proper names can be prepositional objects, like other DPs, but cannot be non-referential quasi-objects.<sup>42</sup>

- (46) a. Tina wík-ənt-əm t Ivan.  
           Tina see-DIR-PASS OBL Ivan  
           Tina was seen by Ivan.
- b. \*kn wík-əm t John.  
           1SG.ABS see-MID OBL John  
           \*I saw a John.

<sup>42</sup>Okanagan prepositions can select for either NP (44a, without the determiner) or DP (46a). Proper names can be predicates in certain contexts (section 4.6.2), which raises the question as to why (46b) is ungrammatical. I suggest that while semantic incorporation requires that the incorporated constituent be of type <e,t> (cf. section 5.3.2), proper names are normally understood as being directly referential, or if they are predicates, as denoting singleton sets, which conflicts with a requirement that the incorporated noun be non-specific.

I now move on to a more detailed discussion of two other types of Okanagan DPs which are important to this dissertation: demonstratives and proper names.

## 4.6 Other DPs: Demonstratives and Proper Names

The distribution of *i?* DPs outlined in previous sections is similar to two other types of DPs in Okanagan, demonstratives and proper names. The following subsections discuss each of these in turn.

### 4.6.1 Demonstrative DPs

The Okanagan demonstrative system encodes spatial deictic distinctions as well as movement of a referent relative to the speaker (Table 4.2). Demonstratives can be divided into ‘simple’ individual-denoting demonstratives, and predicative demonstrative adverbials.<sup>43</sup> I will limit my discussion largely to the simple demonstratives, since these will be analyzed as DPs.

**Table 4.2:** Demonstratives in Okanagan, A. Mattina (1973)

|          | Simple Demonstratives | Demonstrative Adverbs |             |                |              |
|----------|-----------------------|-----------------------|-------------|----------------|--------------|
|          |                       | Location              | Source      | Direction From | Direction To |
| Proximal | <i>axá?</i>           | <i>alá?</i>           | <i>atá?</i> | <i>atlá?</i>   | <i>aklá?</i> |
| Distal   | <i>ixí?</i>           | <i>ilí?</i>           | <i>ití?</i> | <i>itlí?</i>   | <i>iklí?</i> |

The demonstrative adverbs are transparently related to the prepositions *l* ‘at’, *t* ‘source’, *tl* ‘from’, and *kl* ‘to/towards’ (A. Mattina 1973).<sup>44</sup>

The Okanagan simple demonstratives *axá?* ‘this’ and *ixí?* ‘that’ are not limited to referring to inanimate, or non-human objects. They can easily refer to a sentient, contextually relevant human subject.<sup>45</sup> Simple demonstratives function

<sup>43</sup>It is worthwhile to note that while *iklí?* is classified here as an adverbial demonstrative, it is sometimes used as a simple demonstrative by speakers of the Upper Nicola dialect.

<sup>44</sup>There is no particle *x* corresponding to the simple demonstratives.

<sup>45</sup>Unlike the case for Thompson *xe?* ‘that’ (Koch, 2008a, 273).

as arguments for a wide range of predicates, including adjectival (47a,b), locative (47c), verbal intransitive (47d), transitive (47e,f), and nominal (47g) predicates. Argument demonstratives may either follow (47) or precede (48) their predicates.<sup>46</sup> The distribution of these demonstratives is the same as that of *iʔ* DPs, as already discussed.

- (47) a. pəxpáxt ixíʔ.  
           smart     DEM  
           That one is smart.
- b. təxt ixíʔ.  
       sweet DEM  
       It is sweet.
- c. kl sən-kʔáw-mən ixíʔ.  
       LOC LOC-pray-INSTR DEM  
       He is at church.
- d. c-qícəlx ixíʔ.  
       CUST-run DEM  
       He is running.
- e. ʔíʔ-ən ixíʔ.  
       eat-[DIR]-1SG.ERG DEM  
       I ate that.
- f. paʔ-nt-ís ixíʔ.  
       fold-DIR-3SG.ERG DEM  
       He/she folded it.
- g. qəy'-mín axáʔ  
       write-INSTR DEM  
       This is a book.

---

<sup>46</sup>In Kalispel, the demonstrative *iše* (cognate with Okanagan *ixíʔ*) cannot follow a lexical predicate, as in Okanagan (47) below. Sally Thomason (p.c.) indicates that *iše* seems to function as a discourse particle, and so this might explain its restriction to pre-predicative positions.

- (48) a. ixíʔ pə́xpáxt.  
 DEM smart  
 That one is smart.
- b. ixíʔ tə́xt.  
 DEM sweet  
 It is sweet.
- c. ixíʔ kɪ́ sən-kʰáw-mən.  
 DEM LOC LOC-pray-INSTR  
 He is at church.
- d. ixíʔ c-qícəlx.  
 DEM CUST-run  
 He runs.
- e. ixíʔ ʔfə́n.  
 DEM eat(INTR)  
 He's eating.
- f. ixíʔ paʔ-nt-ís.  
 DEM fold-DIR-3SG.ERG  
 He/she folded it.
- g. axáʔ qə́y-mín.  
 DEM write-INSTR  
 This is a book.

Examples (49-52) below serve to emphasize the similar distribution of simple demonstratives and nominal *iʔ* DPs, in both object (49-51) and subject (52) positions.

- (49) a. iʔ xíxwtəm cúm'-qs-əs ixíʔ.  
 DET little.girl suck.nose-[DIR]-3SG.ERG DEM  
 The girl kissed him.
- b. iʔ xíxwtəm cúm'-qs-əs iʔ tət-wít.  
 DET little.girl suck-nose-[DIR]-3SG.ERG DET boy  
 The girl kissed the boy.



- (50) a. paʔ-nt-ís ixíʔ.  
 fold-DIR-3SG.ERG DEM  
 He folded it.
- b. paʔ-nt-ís iʔ qəy'-mín.  
 fold-DIR-3SG.ERG DET write-INSTR  
 He folded the paper.
- (51) a. síq'-ən ixíʔ.  
 split-[DIR]-1SG.ERG DEM  
 I split this.
- b. síq'-ən iʔ slíp.  
 split-[DIR]-1SG.ERG DET firewood  
 I split the firewood.
- (52) a. ixíʔ síws(t)-əs iʔ siwłkʷ.  
 DEM drink-[DIR]-3SG.ERG DET water  
 He is drinking water.
- b. iʔ sqəłtmíxʷ síws(t)-əs iʔ siwłkʷ.  
 DET man drink-[DIR]-3SG.ERG DET water  
 The man is drinking the water.

Simple demonstratives, like *iʔ* DPs, function as direct arguments of adverbial demonstratives like *iklíʔ* ‘over there’ (53,54):

- (53) a. iklíʔ ixíʔ.  
 DEM DEM  
 It (e.g. the cup) is over there.
- b. ixíʔ iklíʔ.  
 DEM DEM  
 It (e.g. the cup) is over there.
- (54) a. iklíʔ iʔ sqʷsiʔ-s.  
 DEM DET son-3SG.POSS  
 His son is over there.

- b. *iʔ*    *sq<sup>w</sup>siʔ-s*        *iklɪʔ*.  
       DET son-3SG.POSS DEM  
       His son is over there.

Since demonstratives pattern with *iʔ* DPs, I assume that they are a type of DP, but it is important to note that demonstratives may also associate with an *iʔ* DP, as in other Interior Salish languages (Matthewson and Davis (1995), Matthewson (1998), Kroeber (1999), N. Mattina (2006)), and form DP constituents with their associated *iʔ* DPs (55).<sup>47,48</sup>

- (55) a. *kaʔkíc-ən*                [*axáʔ iʔ*    *sqlaw<sup>ʔ</sup>* *DP*].  
       find-[DIR]-1SG.ERG DEM DET money  
       I found this money.  
       b. *wík-ən*                [*ixɪʔ iʔ*    *ylmíx<sup>w</sup>əm* *DP*].  
       see-[DIR]-1SG.ERG DEM DET chief  
       I saw that chief.

The demonstratives in (55) are analogous to English uses of demonstratives as deictic determiners, except that in Okanagan, the demonstrative cannot be analyzed as a determiner because it co-occurs with the determiner *iʔ*, and demonstratives cannot replace determiners (56a-57a).<sup>49</sup>

- (56) a. \**k<sup>w</sup>ín-(n)t axáʔ púk<sup>w</sup>laʔ*.  
       take-DIR DEM ball  
       Take this ball.

<sup>47</sup>Demonstrative adverbs may also associate with an *iʔ* DP.

<sup>48</sup>N. Mattina (2006, 105) claims that Moses-Columbian DP-adjacent demonstratives are best analyzed as intransitive predicate demonstratives. She states that because they do not occur within a DP (i.e. inside of a determiner), they are not attached to a DP, but does not discuss the possibility that they might occur in a specifier position, or possibly adjoined to DP (see discussion below).

<sup>49</sup>Although in fast speech, the *iʔ* determiner is sometimes difficult to hear after a demonstrative because of the segmental identity between the second syllable of a demonstrative and the determiner itself, but the fact that they *can* co-occur is any case sufficient evidence for a non-D analysis of simple demonstratives in Okanagan. Determiners are much more regularly dropped in other languages of the Southern Interior, and in Moses-Columbian, for example, N. Mattina (2006) rules out morphophonological reasons for missing determiners, and so it is less clear what the syntactic status of demonstratives is for Moses-Columbian in cases where a determiner is not apparent.

b. k<sup>w</sup>ín-(n)t axá? i? púk<sup>w</sup>la?.

take-DIR DEM DET ball

Take this ball.

(57) a. \*axá? tík<sup>w</sup>t ʃast t sən-caŋ-cʃá-lx-tən.

DEM lake good ATTR LOC-bathe-RED-body-INSTR

This lake is a good place to swim.

b. axá? i? tík<sup>w</sup>t ʃast t sən-caŋ-cʃá-lx-tən.

DEM DET lake good ATTR LOC-bathe-RED-body-INSTR

This lake is a good place to swim.

The distributional evidence thus suggests that demonstratives cannot be analyzed as occurring in D position, unlike *i?*.

It is also important to note that a demonstrative cannot associate with a quasi-object of a morphologically intransitive predicate (58).<sup>50</sup>

(58) a. \*kn ʃmínk-əm (\*ixí?) t ník-mən.

1SG.ABS want-MID DEM OBL cut-INSTR

I want that knife.

b. \*kn wík-əm (\*ixí?) t sqəltmíx<sup>w</sup>.

1SG.ABS see-MID DEM OBL man

I saw that man.

The reason for this restriction is that middle intransitive predicates such as those in (58) may only select for a quasi-object, not a full DP. The data in (59) show that demonstratives can associate with oblique-marked NPs, creating constituents that behave syntactically like core argument DPs.

<sup>50</sup>The same restriction applies to themes of transitive *-x(i)t-* applicatives, however interestingly a *bare* demonstrative can function as an applicative theme, e.g. *k<sup>w</sup>u x<sup>w</sup>icʰts axá?* ‘He gave me this’. Davis and Matthewson (2003) note that bare demonstratives can function as applicative themes in Lillooet, but not as intransitive quasi-objects. I currently am lacking data showing whether or not a bare demonstrative can function as a quasi-object in Okanagan; however I predict that this should not be possible. The acceptability of bare demonstratives, but not demonstrative-associated oblique NPs, as ditransitive themes is interesting and may support positing distinct semantic analyses for these two cases. In chapter 8, I claim on independent grounds that demonstrative-associated oblique NPs are of type <s,e>, while bare demonstratives are uniformly of type e.

- (59) a. c-n-k<sup>w</sup>ní-st-ən                      ixíʔ t      q<sup>w</sup>íləm.  
           CUST-n-sing-CAUS-1SG.ERG DEM OBL song  
           I sang that song.
- b. wík-ən                      ixíʔ t      sqəltmíx<sup>w</sup>.  
           see-[DIR]-1SG.ERG DEM OBL man  
           I've seen that man (before).

In contexts similar to (59), the oblique marker alternates more or less freely with *iʔ*, with no apparent semantic effect (60).<sup>51</sup>

- (60) a. k<sup>w</sup>in-[n]t axáʔ t      púk<sup>w</sup>laʔ.  
           take-DIR DEM OBL ball  
           Take this ball.
- b. k<sup>w</sup>in-[n]t axáʔ iʔ      púk<sup>w</sup>laʔ.  
           take-DIR DEM DET ball  
           Take this ball.

This is directly parallel to an alternation in Lillooet (Matthewson and Davis, 1995; Matthewson, 1998) between DPs containing a demonstrative and an assertion of existence determiner *ti...a* (61a) and DPs containing a demonstrative and a non-assertion of existence determiner *k<sup>w</sup>u* (61b), with the exception that in Okanagan, *t* is not a determiner.

- (61) a. təx<sup>w</sup>p-mín-łkan      tiʔ ti      káh-a.  
           buy-APPL-1SG.ERG DEM DET car-EXIS  
           I bought that car.                      (Lillooet, Matthewson (1998, 217, ex.81a))
- b. təx<sup>w</sup>p-mín-łkan      tiʔ k<sup>w</sup>u      kah.  
           buy-APPL-1SG.ERG DEM DET car  
           I bought that car.                      (Lillooet, Matthewson (1998, 216, ex.80a))

<sup>51</sup>In Okanagan, the alternation between *iʔ* and *t* also occurs in the context of demonstrative associated DPs in equative contexts, and establishes an important morphosyntactic basis for analyzing Okanagan clefts as equatives (cf. section 8.5.2). There is also an information structural difference which surfaces between DPs with demonstratives adjoined to *iʔ* DPs, and those with demonstratives adjoined to *t* NPs, such that in the former case, the entire constituent may be in focus, whereas in the latter case, *only* the demonstrative may be in focus. See section 8.5.

A demonstrative-associated oblique marker in Okanagan (62, cf. section 8.5.2), and a demonstrative-associated  $k^wu$  DP in Lillooet (63) may only select for an NP.

- (62) ixíʔ iʔ/\*t paʔ-nt-ís.  
 DEM DET/\*OBL fold-DIR-3SG.ERG  
 That's what he folded.

- (63) a. təx<sup>w</sup>p-mín-ʔkan tiʔ ti ʔák-a knátiʔ.  
 buy-APPL-1SG.ERG DEM DET go-EXIS DEIC  
 I bought that one that's going by there.  
 (Lillooet, Matthewson (1998, 217, ex.81c))

- b. \*təx<sup>w</sup>p-mín-ʔkan tiʔ k<sup>wu</sup> ʔák knátiʔ.  
 buy-APPL-1SG.ERG DEM DET go DEIC  
 I bought that one that's going by there.  
 (Lillooet, Matthewson (1998, 216, ex.80a))

Baker (2003, 182) understands this pattern as resulting from the fact that only a subset of determiners in a language license null nouns (cf. English *I admire the/\*a/?\*that rich.*). Thus, while Okanagan *iʔ* and Lillooet *ti...a* may both license null NPs (cf. discussion in 4.3 on null NPs), the oblique marker *t* and non-assertion of existence determiner  $k^wu$  must select for a lexical NP. The reason behind this is unclear.

In summary, demonstratives can function as stand-alone arguments (64a,65a), exactly like *iʔ* DPs (64b,65b), or may associate with an *iʔ* DP or oblique marked NP (64c,65c).

- (64) a. síq'-ən ixíʔ.  
 split-[DIR]-1SG.ERG DEM  
 I split that.
- b. síq'-ən iʔ slíp.  
 split-[DIR]-1SG.ERG DET firewood  
 I split the firewood.

c. síq'-ən                      ixíʔ   t/iʔ                      slíp.  
 split-[DIR]-1SG.ERG   DEM   OBL/DET   firewood  
 I split that firewood.

(65) a. ixíʔ   síws(t)-əs                      iʔ                      siwłkʷ.  
 DEM   drink-[DIR]-3SG.ERG   DET   water  
 He is drinking water.

b. iʔ   sqəłtmíxʷ   síws(t)-əs                      iʔ                      siwłkʷ.  
 DET   man                      drink-[DIR]-3SG.ERG   DET   water  
 The man is drinking (the) water.

c. ixíʔ   t/iʔ   sqəłtmíxʷ   síws(t)-əs                      iʔ                      siwłkʷ.  
 DEM   DET   man                      drink-[DIR]-3SG.ERG   OBL/DET   water  
 That man is drinking the water.

Okanagan demonstratives present several major analytical difficulties. These are as follows:

- (66) a. **The Projection Problem:** If simple demonstratives are not determiners (56-57), but their external syntax is identical to *iʔ* DPs, are simple demonstratives categorially DPs, and if so, where is the projecting head?
- b. **Internal Constituency:** A demonstrative licenses an oblique-marked NP to function as a DP argument (59), but where is the determiner?
- c. **Compositionality:** If demonstratives are type *e* expressions, like *iʔ* DPs, how can a demonstrative compose with an *iʔ* DP of the same type?

There is no easy solution to these problems. Matthewson and Davis (1995) and Matthewson (1998) discuss similar issues concerning Lillooet demonstratives and demonstrative-associated DPs (e.g. 61 and 63). Davis (2006, 2009) shows that demonstrative-associated DPs in Lillooet permit condition C violations, whereas simple demonstratives do not, a finding which may indicate that there is a structural and semantic difference between demonstratives, depending on whether they occur in isolation or adjoined to a DP. Clearly this problem requires further research, both in Okanagan and in other Salish languages.

For the purposes of this dissertation, I assume based on their external distribution that simple demonstratives, demonstrative-associated *i?* DPs, and demonstrative-associated *t* NPs are all categorially DPs (67), and thus abstract away from the problems in (66).

- (67) a.  $\text{siq}^{\text{'}}\text{-}\text{ən}$   $[\text{ixi?}_{DP}]$ .  
 split-[DIR]-1 SG.ERG DEM  
 I split that.
- b.  $\text{siq}^{\text{'}}\text{-}\text{ən}$   $[\text{ixi?} \text{ t/i?} \text{ slip}^{\text{'}}_{DP}]$ .  
 split-[DIR]-1 SG.ERG DEM OBL/DET firewood  
 I split that firewood.

#### 4.6.2 Proper Name DPs

Proper names pattern with simple demonstratives and nominal *i?* DPs in being arguments of adjectival, locative, intransitive, transitive, and nominal predicates. As with nominal *i?* DPs and demonstratives, the linear order of a predicate and a proper name argument is free. (68) shows the proper name argument preceding the predicate<sup>52</sup>, and (69) shows the proper name argument following the predicate:

- (68) a. Ivan  $\text{ɬʔat}^{\text{'}}$ .  
 Ivan wet  
 Ivan is wet.
- b. Mike  $\text{kl}^{\text{'}} \text{ sən-ma?máya?}-\text{tən}$ .  
 Mike LOC LOC-teach-INSTR  
 Mike is at school.

<sup>52</sup>For (69c), but not (68e), the proper name is interpretable as an object. The availability of the subject reading in either case, and the fact that it is required in (68e), is illustrative of how the One Nominal Interpretation Effect (ONI) (Gerdts, 1988) is sometimes inoperative in Okanagan. All other things being equal, a pre-predicative transitive argument is preferably interpreted as a subject, whereas a post-predicative transitive argument is preferably interpreted as an object. The equivalent of (68e) is ungrammatical in (Lower) Lillooet since a pre-predicative DP must be interpreted as a subject, but this can only result in an ONI violation (Davis, 1999b).

- c. John nis.  
John leave  
John left.
- d. Tina ʔq<sup>w</sup>-aq<sup>w</sup>-míst.  
Tina cry-FRED-INTR.REFLEX  
Tina cried (to herself).
- e. Pete wik-s.  
Pete see-[DIR]-3SG.ERG  
Pete saw him./\*He saw Pete.
- f. Norman k<sup>w</sup>u n-ʔay-ʔay-ínk-s.  
Norman 1SG.ABS n-tickle-RED-stomach-[DIR]-3SG.ERG  
Norman tickled me.
- g. John səx<sup>w</sup>-mrím-əm.  
John OCC-medicine-MID  
John is a doctor.
- (69) a. ʔl sən-kʔáw-mən John.  
LOC LOC-pray-INSTR John  
John is at the church.
- b. qas-ncút Ivan.  
scratch-REFLEX Ivan  
Ivan scratched himself.
- c. wik-s Pete.  
see-[DIR]-3SG.ERG Pete  
Pete saw him./He saw Pete.
- d. k<sup>w</sup>u taq-s Ivan.  
1SG.ABS wave-[DIR]-3SG.ERG Ivan  
Ivan waved at me.
- e. səx<sup>w</sup>-mrím-əm John.  
OCC-medicine-MID John  
John is a doctor.



Assuming proper names are a type of argument DP, we predict that proper names may substitute for both argument demonstratives and nominal DPs, which is indeed the case (70-71):<sup>53</sup>

- (70) a. Nancy səx<sup>w</sup>-məʔmáyaʔ-m.  
           Nancy OCC-teach-MID  
           Nancy is a teacher.
- b. ixíʔ səx<sup>w</sup>-məʔmáyaʔ-m.  
           DEM OCC-teach-MID  
           She/That is a teacher.
- c. [iʔ] isk<sup>w</sup>úy səx<sup>w</sup>-məʔmáyaʔ-m.  
           [DET] 1SG.POSS-mother OCC-teach-MID  
           My mother is a teacher.
- (71) a. Spike ʔayǰ<sup>w</sup>t.  
           Spike tired  
           Spike is tired.
- b. ixíʔ ʔayǰ<sup>w</sup>t.  
           DEM tired  
           He's tired.
- c. iʔ tkłmiłx<sup>w</sup> ʔayǰ<sup>w</sup>t.  
           DET woman tired  
           The woman is tired.

Proper names also function as arguments for adverbial demonstratives (72), similarly to nominal *iʔ* DPs and simple demonstratives, which were discussed in the previous section.

- (72) a. iklíʔ John.  
           DEM John  
           John is over there. (answer to “Where is John?”)

---

<sup>53</sup>As indicated for (70c), an *iʔ* determiner predictably reduces before first *i(n)*- and second *a(n)*-person possessive morphology (A. Mattina 2000). It is always present in similar contexts involving third person possessive agreement.

- John is over there. (answer to “Where is John?”)

To begin with, proper names do not normally occur with an *i?* determiner in argument DP contexts in Okanagan, as illustrated by (73):

- (73) a. John wik-s Mary  
John see-[DIR]-3SG.ERG Mary  
John saw Mary.
- b. #John wik-s i? Mary  
John see-[DIR]-3SG.ERG DET Mary  
John saw Mary.

<sup>54</sup>Proper names occur with non-deictic determiner *kwi* in Squamish (Gillon, 2006), and with the proper name determiner *k<sup>w</sup>* in Lillooet (van Eijk, 1997; Matthewson, 1998), and so a hypothesis whereby Okanagan has a null, referential determiner that only occurs with proper names receives some cross-linguistic support.

- (74) a. yaŋyáŋt iʔ Mary ʔwíst-ləx.  
all DET Mary stand-3PL.ABS  
All the Marys stood up.
- b. iʔ ʔəŋ-ʔəŋáp iʔ John iʔ c-n-ʔuŋx<sup>w</sup>.  
DET RED-grown DET John DET CISL-n-enter  
The old John came in (i.e. not the young John).
- c. iʔ Dányəl aʔ c-my-st-in, ʔast iʔ ʔl  
DET Daniel DET CUST-know-CAUS-1SG.ERG good DET LOC  
sqilx<sup>w</sup>.  
native.people  
The Daniel that I know is good to the people.

In (74a), *Mary* is a common noun of sorts, since it denotes a class of individuals with the property of *being* Mary, or *having the name* Mary. The *iʔ* determiner is mandatory here, required by *yaŋyáŋt* ‘all’ as a quantifier in argument position. For (74b), the ‘old John’ is contrasted to a contextually salient ‘young John’, where *John* denotes a set of individuals with that name. In (74c), *iʔ Daniel* denotes an individual which is contrasted with other individuals named Daniel which are not good to the people.

A second piece of evidence that proper names are lexical NPs comes from data showing that they may be affixed by possessive pronouns (75a), similarly to common nouns (75b).

- (75) a. incá in-Máry mys-ʔast tl anwí tl  
1SG.INDEP 1SG.POSS-Mary more-good LOC 2SG.INDEP LOC  
an-Máry.  
2SG.POSS-Mary  
My Mary is nicer than your Mary.  
Context: You and a friend both have daughters named Mary, and are  
arguing over which one is nicer.

- b. incá            i(n)-stəmkʔílt            mys-ǰast    tɬ    anwí            tɬ  
                     1SG.INDEP 1SG.POSS-daughter more-good LOC 2SG.INDEP LOC  
                     a(n)-stəmkʔílt.  
                     2SG.POSS-daughter  
                     My daughter is nicer than your daughter.

Proper nouns may also take absolutive pronominal morphology (76a) similarly to common nouns (76b), but unlike demonstratives (76c).

- (76) a. kn            John.  
                     1SG.ABS John  
                     I'm John.  
       b. kn            səx<sup>w</sup>-qəy'-ám.  
                     1SG.ABS OCC-write-MID  
                     I'm a writer.  
       c. \*k<sup>w</sup>u        axáʔ.  
                     1PL.ABS DEM  
                     This is us.

What the data in (73-76) seem to show is that Okanagan proper names can either themselves be DP arguments (73), NPs which combine with *iʔ* determiners to form DPs (74, 75), or bare NP predicates (76a). For Longobardi (1994), proper names are inserted into the syntax as NPs, but raise to an empty D position at logical form, through which they receive their directly-referential interpretations. A similar analysis of Okanagan proper names seems possible: if as NPs, they do not undergo raising to D to achieve DP-status (74), then they can still become DPs when they are complements of an *iʔ* determiner.<sup>55</sup> Syntactic evidence for N-to-D raising is non-existent, however, and so as an alternative, it may be preferable to assume a null referential determiner that selects *only* for proper names, similar to Lillooet *k<sup>w</sup>* (van Eijk, 1997; Matthewson, 1998).

An alternative analysis which is consistent with the data in this section is to assume that proper names are lexically DPs, but that they may be coerced into NPs

<sup>55</sup>Though their interpretations will be different because of implicatures associated with *iʔ*. See chapter 5.

in specific syntactic and pragmatic contexts. At present, there is little evidence for or against such an analysis, but it is worth mentioning that (i) a coercion-to-NP analysis of proper names might predict that demonstratives could be coerced into NPs as well, but this is clearly not the case, and (ii) there is cross-Salishan evidence that proper names may co-occur with referential determiners in unmarked contexts.<sup>56</sup>

## 4.7 Summary

This chapter first introduced the basic concept of noun-hood in Okanagan Salish (section 4.2), and then presented syntactic tests for distinguishing nouns from other categories (section 4.3). Next, the general distribution of predicates and arguments was discussed, and the distribution of the determiner *i?* and oblique marker *t* was shown to be grammatically predictable (section 4.4). Then, I presented my syntactic analysis of *i?* DPs and oblique-marked quasi-objects (section 4.5), before discussing demonstratives and proper names as two other types of DPs (4.6).

Chapter 5 discusses the semantics of core *i?* DP arguments, and how they differ semantically from oblique-marked quasi-objects.

---

<sup>56</sup>In chapter 7, I argue that proper names must be analyzed as DPs in equative contexts, but may be predicative NPs in identificational contexts. Unfortunately, these data do not seem to clarify whether coercion-to-NP analysis or a null referential determiner (or N-to-D raising) analysis is correct for Okanagan proper names since in both cases, the distribution of NP and DP proper names is limited to only specific grammatical environments, and in both cases, null derivations/morphemes are involved.

## Chapter 5

# Semantics of Okanagan Determiner Phrases

The semantics of determiners and determiner phrases (DPs) in Okanagan Salish has not previously been investigated in any depth, 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. This chapter analyzes the Okanagan determiner *i?* as involving a choice function over a contextually restricted domain of individuals (Reinhart, 1997; Kratzer, 1998; Matthewson, 1999). The referential strength of *i?* is determined by the number of individuals within a restricted context set and by whether the choice function selects a singular, a plural, or a maximal individual from that context set. The Okanagan oblique marker *t* is not a determiner, but a semantically vacuous morphological reflex of semantic incorporation (Van Geenhoven, 1998; Chung and Ladusaw, 2004; Farkas and de Swart, 2004; Carlson, 2006), which is a property of certain intransitivizing morphemes in Okanagan, such as middle *-m*.

The semantics of *i?* is important for an understanding of the semantics of DP-DP structures, as discussed in chapter 7.

## 5.1 Introduction

The determiner systems of Okanagan and the other languages of the Southern Interior differ in many ways from those of Northern Interior and Central Salish languages. In particular, the Upper Nicola dialect of Okanagan makes use of only one determiner, *iʔ*.<sup>1</sup> This contrasts starkly with Northern Interior languages such as Lillooet, for example, which has an elaborate determiner system (van Eijk, 1997; Matthewson, 1998), and somewhat less starkly with Thompson and Shuswap, which each have two referential determiners, and one non-referential determiner (Kroeber, 1999, 70).

Based on a range of tests, I claim that the referential strength of an *iʔ* DP is contextually determined, and sensitive to domain restriction. Technically speaking, a choice function  $f$  (Reinhart, 1997) selects one singular or plural individual from the intersection of the nominal and contextual (C) domains (Gillon, 2006). Because *iʔ* DPs allow individual-concept readings, unlike Lillooet assertion-of-existence DPs (Demirdache, 1996), I claim that *iʔ* DPs may denote intensional individuals. I assume the following semantics for *iʔ* (1a), and claim that it carries the maximality implicature given in (1b):

$$(1) \text{ a. } \llbracket iʔ \rrbracket = \lambda P \lambda w [f(\lambda x [P(x)(w) \wedge C(x)(w)])]$$

b. Maximality implicature:

$$f = \text{MAX}$$

The formula says that the determiner *iʔ* takes as its first argument a (nominal) predicate  $P$ , and as its second argument a world  $w$ , and asserts that a free variable over choice functions  $f$  selects an individual  $x$  from the intersection of  $P$  and the context set  $C$  (also a free variable) in that world.<sup>2</sup> The maximality implicature states that the choice function is equivalent to the maximal individual in the intersection of  $P$

<sup>1</sup>Colville-Okanagan utilizes a second determiner *təʔ* (A. Mattina 1973). Upper Nicola speakers do not allow *təʔ* to take nominal complements except in identificational copular sentences, in which something is being given a name. Given this very limited distribution before nominals, and the fact that *təʔ/taʔ* is used as a clausal subordinator in other contexts, I analyze it as a complementizer for the Upper Nicola dialect.

<sup>2</sup>Concerning the semantic type of the variables,  $P$  and  $C$  are of type  $\langle\langle e, \langle s, t \rangle \rangle\rangle$ , and  $f$  is of type  $\langle\langle e, t \rangle, e \rangle$ .

and the context set  $C$ .<sup>3</sup> (1b) represents the default setting for  $i?$ , however in cases where  $f$  is existentially bound, or selects one individual from a set of contextually salient individuals, this default is overridden.

Oblique quasi-objects introduced by  $t$  differ both syntactically and semantically from  $i?$  DP objects. I claim that the case-marker  $t$  is semantically vacuous, and simply serves to indicate that the following nominal is semantically incorporated (Van Geenhoven, 1998; Chung and Ladusaw, 2004; Farkas and de Swart, 2004; Carlson, 2006). Quasi-objects in Okanagan exhibit many of the cross-linguistic hallmarks of semantically incorporated nouns (Carlson, 2006). I suggest that the intransitivizing morphology (e.g. ‘middle’ suffix  $-əm$ ) which licenses oblique quasi-objects encodes semantic incorporation (see section 5.3.2). Most importantly for this thesis,  $t$  does not employ domain restriction, since it does not access the context.

As discussed in chapter 4, the distribution of  $i?$  and  $t$  is syntactically predictable, and the possible semantic interpretations of a formally transitive predicate with an  $i?$  DP object overlap with the interpretations of a formally intransitive predicate with a quasi-object introduced by  $t$ , specifically for cases where the default for  $i?$ ,  $f = \text{MAX}$ , is overridden. A speaker’s manipulation of the morpho-syntax of transitivity (and the accompanying use of  $i?$  versus  $t$  in argument contexts) leads to a strong conversational implicature, given as (2):

(2) Conversational implicature:

Because the default for  $i?$  is  $f = \text{MAX}$ , a speaker’s use of an intransitive construction with a quasi-object introduced by  $t$  carries a conversational implicature of non-maximality.

The chapter is outlined as follows: Section 5.2 investigates the semantics of  $i?$  and  $t$ . First I show that  $i?$  and  $t$  are not deictic (5.2.1), not definite (5.2.2), not like English indefinites (5.2.3), and not like Lillooet assertion-of-existence wide-scope indefinites (Matthewson, 1998, 1999) (5.2.4). Next, I show that  $t$  is felicitous in some environments where  $i?$  is not, and vice-versa, and conclude that  $i?$  carries an implicature of uniqueness and maximality of a referent, while  $t$  does not (5.2.5).

---

<sup>3</sup>Rullmann (1995, 143) defines the maximal individual as “the unique element of the set of which all other elements of the set are parts.” Applied to a set  $A$ , the formal definition is  $\text{MAX}(A) = \iota x[x \in A \wedge \forall x' \in A[x' \leq x]]$ .



In 5.2.6, I give additional data which suggest that *i?* restricts the domain of individuals, rather than creating a generalized quantifier (Barwise and Cooper, 1981). Sections 5.2.7 and 5.2.8 present additional data showing existential and generic uses of *i?*, which are important in showing that domain restriction may be vacuous in certain cases. Section 5.2.9 discusses in more detail intensional readings of *i?* DPs, and section 5.2.10 summarizes section 5.2. Section 5.3 presents my analysis, and section 5.4 concludes.

## 5.2 The Semantics of the Determiner *i?* and Oblique Marker *t*

This section introduces data relevant to determining the semantics of *i?* and *t*. I test for deixis, definiteness and specificity, English-like existential indefiniteness, and widest-scope indefiniteness. Many of these tests were first utilized by Matthewson (1998) and Gillon (2006) in their studies of Lillooet and Squamish determiners, respectively. Table 4.1 below lists relevant semantic properties:

**Table 5.1:** Semantic Properties of *i?* and *t*

| Section | Property  | <i>i?</i> | <i>t</i> |
|---------|---|-----------|----------|
| 5.2.1   | Deictic   | x         | x        |
| 5.2.2   | Definite  | x         | x        |
|         | -presuppose existence                             | x         | x        |
|         | -assert uniqueness/maximality                     | x         | x        |
|         | -specificity                                      | x         | x        |
| 5.2.3   | English-like existential indefinite               | x         | x        |
| 5.2.4   | Wide-scope indefinite (cf. Lillooet and Squamish) | x         | x        |
|         | -can take wide-scope w.r.t. modals and negation   | ✓         | x        |
|         | -must take wide-scope w.r.t. modals and negation  | x         | x        |
| 5.2.5   | Carries an implicature of uniqueness/maximality   | ✓         | x        |

Following these tests, I present some additional data suggesting that *i?* DPs do not create generalized quantifiers (5.2.6), and allow for both existential (5.2.7) and

generic readings (5.2.8), as well as intensional readings (5.2.9). I then summarize my findings.

### 5.2.1 *iʔ* and *t* are not Deictic

Firstly, the determiner *iʔ* does not encode spatial deixis or a visible/invisible distinction. It may introduce a nominal like *sqəłtmíx<sup>w</sup>* ‘man’ whose referent is either proximal and visible to the speaker (3a) or distal and invisible (3b) to the speaker. (3a) is likewise felicitous if the speaker cannot see the man, and (3b) if the speaker were watching a moonwalk on television.

- (3) a. *akláʔ c-x<sup>w</sup>ist iʔ sqəłtmíx<sup>w</sup>.*  
 DEM CUST-walk DET man  
 A man is walking over here.
- b. *iʔ sqəłtmíx<sup>w</sup> c-x<sup>w</sup>ist iʔ l ʔyáłnəʔ<sup>w</sup>.*  
 DET man CUST-walk DET LOC moon  
 A man is walking on the moon.

Speaker knowledge of the location of a referent is irrelevant in determining whether or not an *iʔ* DP may be used. In (4), 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 where that book is. In other words, if *iʔ* entailed knowledge of the location of a referent, then it should not be possible to utter the second conjunct of (4).

- (4) John *c-ʔaʔʔaʔ-nt-ís* *iʔ n-qəy'-ús-tən, uł*  
 John CUST-look.for-DIR-3SG.ERG DET n-write-eye-INSTR CONJ  
*lut ta c-my-st-ín kaʔkín.*  
 NEG EMPH CUST-know-DIR-1SG.ERG where  
 John is looking for a book, but I don't know where it is.

It is important to consider whether *iʔ* might be specified as having a “neutral” deictic feature, similar to Squamish *ta* (Gillon, 2006), rather than being unspecified for deixis. The Squamish 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:

- (5) lut tə c-wík-st-n iʔ sqəłtmíx<sup>w</sup>  
 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.

Although a “neutral” deictic feature implies that there are no deictic restrictions on the use of an item, it also implies that there are other available “non-neutral” deictic values which might associate with other determiners. As there are no other determiners in Okanagan, and deixis is largely determined by demonstratives in the language, I take this as evidence that *iʔ* has no deictic specification.<sup>4</sup>

As further evidence that Okanagan *iʔ* is non-deictic, consider Matthewson (2008), who notes that Lillooet assertion-of-existence DPs do not allow bound variable, E-type (Cooper, 1979; Evans, 1980; Elbourne, 2001), or other anaphoric 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,<sup>5</sup> E-type readings are easily obtainable. This essentially means that the denotation of an *iʔ* DP can vary across situations, and does not entail the existence of a particular individual at a single location. In (6), the final DP *iʔ sʔaʔcínəm* denotes some non-specific individual which Norman says he will shoot.

<sup>4</sup>In this respect then, Okanagan *iʔ* is similar to the Moses-Columbian “non-demonstrative, general” neutral determiner *?ani* (N. Mattina 2002).

<sup>5</sup>Bound 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. I discuss some data involving distributive readings in section 5.2.6, but largely sidestep these issues for reasons of space.

- (6) Norman ks-píḡ-aʔx      ɬ      tʰap-ám      t      sʰaʔcínəm,  
 Norman FUT-hunt-INCEPT COMP shoot-MID OBL deer  
 ḡmink-s      swit ks-cíqʷ-iʔ-s      iʔ  
 want-[DIR]-3SG.ERG who FUT-skin-MID-3SG.POSS DET  
 sʰaʔcínəm.  
 deer  
 Norman said he's going to kill a deer and he wants someone to skin the  
 deer. (adapted from Matthewson (2008, ex.45))

Okanagan *iʔ* DPs also allow co-varying interpretations in cases similar to those which involve bridging in English. The DP *iʔ ylmíxʷəm* “the chief” in (7) denotes a different individual for every reserve that the speaker visits.

- (7) kn      ɬaʔ      c-xʷuy      kl      sqlxʷ-úlaʔxʷ,      pintk      iʔ  
 1SG.ABS COMP CUST-go LOC native.person-land always DET  
 ylmíxʷəm iʔ      cxʔit ac-qʷəlqʷíl-st-n.  
 chief      DET first CUST-talk-CAUS-1SG.ERG  
 Every time I visit a reserve, I talk to the chief. (adapted from Matthewson  
 (2008, ex.51))

The availability of E-type readings for Okanagan *iʔ* DPs sets them apart from Lillooet assertion-of-existence DPs. This is consistent with a claim that Okanagan *iʔ* has no deictic features to force reference to the discourse situation, or prevent binding across situations. The case-marker *t* also cannot be analyzed as having deictic features: it allows only narrow-scope, non-specific interpretations, and is best analyzed as semantically vacuous, as I will show in following sub-sections.

### 5.2.2 *iʔ* and *t* are Not Definite

#### *iʔ* and *t* do Not Encode Familiarity or Presuppose Existence

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 places no constraints on the common ground of discourse. Evidence

for this claim comes from the beginning of narratives, where a new discourse referent may be introduced by *i?* (cf. similar data for Lillooet (Matthewson, 1999), for Squamish (Gillon, 2006), and for Moses-Columbian (N. Mattina 2006)):

- (8)      ʔsápi      k<sup>w</sup>uk<sup>w</sup>    iʔ      tətʷít.    ʃ<sup>w</sup>íl-st-səlɣ.  
          long.ago    REP      DET    boy      abandon-CAUS-3PL.ERG  
          A long time ago, there was a/\*the boy. They abandoned him.  
          (Lindley and Lyon, 2012, stz. 139)

The above use of *iʔ* patterns with the English indefinite determiner *a*. Unlike an English indefinite, however, once a discourse referent is established, an *iʔ* DP easily allows a co-referential reading. In other words, *iʔ* is felicitous in both definite and indefinite contexts. To illustrate, (9a) shows a new referent *iʔ xʕut* ‘a rock’ being introduced at the beginning of a narrative. At a later point in the story, the referent is once again invoked using an *iʔ* DP (9b).

- (9) a. l q'umqn-átk<sup>w</sup> k-síl<sup>w</sup>x<sup>a?</sup> i? xłut ilí? swit xi?wíl<sup>x</sup> uł  
 LOC head-water HAVE-big DET rock DEM who pass.by CONJ  
 c-k'íáw-əm.  
 CUST-pray-MID  
 At Chapperon Lake there is a big rock where people who pass by pray at.  
 (Lindley and Lyon, 2012, stz. 116)
- b. uł ks-knxít-m-s i? xłut.  
 CONJ FUT-help-2SG.ACC-3SG.ERG DET rock  
 It will help you, the rock.  
 (Lindley and Lyon, 2012, adapted from stz. 122)

### *i?* and *t* do not Assert or Presuppose Uniqueness or Maximality

Uniqueness assertions, and maximality assertions for plural DPs (Link, 1983), are sometimes considered properties of the English definite determiner (Heim, 2011). It quickly becomes apparent that *i?* and *t* do not assert or presuppose the uniqueness

(10) Context: There are two cups on a table, equidistant from the speaker.  
k<sup>w</sup>u            c-k<sup>w</sup>i[n]-tɬ    iʔ    lpoʔ.  
1 SG.ABS C1SL-take.something.for.someone-APPL DET cup  
Bring me a cup.     (adapted from Gillon (2006, 88))  
Consultant's comment: Then I'd pass you one of the cups.

[illegible]

(12) Context: I enter a room and tell you what happened to me today.  
a. t-kic-n iʔ sqəltmíx<sup>w</sup> ʔapnáʔ sʰəlxʔált.  
t-meet-[DIR]-1SG.ERG DET man now today  
I met a man today.

130

- b. kn            t-kíc-əm    t    sqəłtmíx<sup>w</sup> ʔapnáʔ sʔəlǰʔált.  
 1SG.ABS t-meet-MID OBL man        now        today  
 I met a man 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. If *iʔ* or *t* encoded a presupposition of uniqueness, we might expect presupposition failure in contexts for which the hearer does not have in mind the same unique referent as the speaker, yet there is no presupposition failure for (12).<sup>7</sup>

In question-and-answer contexts (e.g. 13-14), *iʔ* may be used to establish a new discourse referent (13b), or answer a question related to a previously established discourse referent (14b). A construction involving a quasi-object cannot be used to answer a question related to a previously established discourse referent (14c). It can instead only be construed as establishing a new discourse referent, and is therefore infelicitous in the context given in (14a).<sup>8</sup>

- (13) a. Context: Questioner has no idea what the addressee might have thrown.

stim̓ iʔ    c̓qmin-[n]t-x<sup>w</sup>?  
 what DET throw-DIR-2SG.ERG  
 What did you throw?

- b. c̓qmi[n]-n                            iʔ    p̓úk<sup>w</sup>laʔ.  
 throw-[DIR]-1SG.ERG DET ball  
 I threw a/the ball.

<sup>7</sup>It is possible that the reason why there is no presupposition failure in cases like (12) is due to the fact that Okanagan speakers more easily accommodate presuppositions than do speakers in English. In light of the fact that parameterizing accommodation is no easy task, I do not follow this general line of reasoning, but instead argue that *iʔ* is non-presuppositional, following Matthewson (2006a) for Lillooet. See also discussion in section 8.3.3.

<sup>8</sup>The syntax of WH-questions in Okanagan requires further work. The constituent introduced by *iʔ* in (13a) is a DP containing a headless relative clause (cf. chapter 6), and while WH items have traditionally been analyzed as predicates in the Salish literature, since they occur in predicate position, there is some doubt as to whether this is the correct analysis or not. Baptiste (2001, section 3.3) weighs three separate possible analyses of WH-questions in Okanagan: WH in-situ, WH movement, and clefting. Under the WH in-situ analysis in particular, a WH item may be analyzable as a DP, however since they do not have the same distribution as other DPs (e.g. they cannot occur post-verbally, generally), Baptiste rejects this hypothesis.

c. kn            cǝmín-əṃ    t            púk<sup>w</sup>laʔ.  
 1SG.ABS throw-MID OBL ball  
 I threw a ball.

(14) a. Context: Questioner is specifically asking what happened to a definite ball.

xʔkínəṃ    iʔ            púk<sup>w</sup>laʔ?  
 where    DET ball  
 Where is the ball?

b. cǝmi[n]-n                            iʔ            púk<sup>w</sup>laʔ.  
 throw-[DIR]-1SG.ERG DET ball  
 I threw a/the ball.

c. #kn            cǝmín-əṃ    t            púk<sup>w</sup>laʔ.  
 1SG.ABS throw-MID OBL ball  
 I threw a ball.

If *iʔ* or *t* presupposed uniqueness, we might expect (i) *iʔ* to be infelicitous in an indefinite context, which it is not (cf. 13b as an answer to 13a); and (ii) *t* to be felicitous in a definite context, which it is not (cf. 14c as an answer to 14a). Since either may freely be used in indefinite contexts, neither can be analyzed as encoding a presupposition of uniqueness.<sup>9</sup>

Finally, data showing that *iʔ* DPs may occur in existential sentences provide further evidence that there is no maximality assertion associated with *iʔ*:

(15) x<sup>w</sup>?it    iʔ            siwɬk<sup>w</sup>    kl            kaʔɬús.  
 many DET water LOC over the hill  
 There is a lot of water over that hill.

That *t* also does not assert uniqueness or maximality follows from the fact that data like (14c) cannot be used in contexts involving a previous established unique referent (14a), but there is evidence that *t* cannot be used in *any* contexts involving a unique referent. In (16), ʧyáɬnəʃ<sup>w</sup> ‘sun’ denotes a singleton set, a fact which is implicitly part of the interlocutors’ common ground. Since *t* cannot make

<sup>9</sup>(14c) is not possible as an answer to (14a) because *t* does not reference the context, and so cannot co-refer with a previously introduced discourse referent.



anaphoric reference to the context set, (16b) is only interpretable as introducing a new discourse referent to the common ground, resulting in an implicature that there is ‘more than one’ sun.<sup>10</sup>

(16) Context: It’s been cloudy for several days now. I come over to your house and without any prior context ask you:

- a. uc    wík-ənt-x<sup>w</sup>            i?    ǰyáɬnəǰ<sup>w</sup> ʔapnáʔ?  
       DUB see-DIR-2SG.ERG DET sun            today  
       Did you see the sun today?
- b. #uc    k<sup>w</sup>            wík-əm    t    ǰyáɬnəǰ<sup>w</sup> ʔapnáʔ?  
       DUB 2SG.ABS see-MID OBL sun            today  
       Did you see a sun today?

I conclude that neither the determiner *i?* nor the oblique marker *t* assert or presuppose uniqueness or maximality of a referent, however while *i?* can make reference to the context set and select a maximal individual, *t* cannot, by implicature.

### ***i?* and *t* do not Encode Specificity**

Okanagan *i?* 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 case-marker *t*, by contrast, is consistently non-specific (cf. N. Mattina (2006) on Moses-Columbian).

Diesing (1992) and Enç (1991) define specificity as involving a non-empty and contextually salient set P, where a DP denotes a sub-part of P. For Ludlow and Neale (1991), a contextually salient set P need not be discourse-old in order to use a specific determiner; the only necessary presupposition is that the set P is non-empty. Under either definition, Okanagan *i?* does not encode specificity.

The following two English sentences, taken from Matthewson (1998, 95-97), illustrate how the English indefinite determiner *a* permits a specific reading:

<sup>10</sup>The same issue arises with proper names in oblique contexts.

(17) 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 (17a) refers to a specific book. Likewise in (17b), 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).

(18) Sophie didn't buy a unicorn.

Similarly in Okanagan, the felicitous use of *i?* and *t* does not depend on any presupposition that a set P is non-empty. (19c,d), for example, are fine in both worlds where sasquatches exist (Context A) and do not (Context B) exist.

(19) a. Context A: There are such things as sasquatches. Some of your friends have seen one, but you never have.

b. Context B: There are no such things as sasquatches.

c. lut ny'ip tə c-wík-st-ən i? čwanáytmx.  
 NEG always EMPH CUST-see-CAUS-1SG.ERG DET sasquatch  
 I've never seen a/the sasquatch.  
 Consultant: I've never seen a sasquatch in my whole life.

d. lut tə kn c-wík-əm t čwanáytmx.  
 NEG EMPH 1SG.ABS CUST-see-MID OBL sasquatch  
 I've never seen any sasquatch.'  
 Consultant: I've never seen no sasquatch.

The DP *i? čwanáytmx* ‘a sasquatch’ in (19c) 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.<sup>11</sup>

I assume that specificity is not a property of a DP whose referent varies across worlds and times. In (20) below, the DP *iʔ sqəłtmix<sup>w</sup>* ‘a man’ permits both a specific interpretation (i.e. the same man sits at the same table every day, and John always argues with that particular man), and a non-specific interpretation (i.e. John argues with whichever man happens to be sitting at a particular table).

- (20) John pintk kaʔ c-q<sup>w</sup>al-st-wíx<sup>w</sup>-s iʔ  
John always COMP CUST-argue-CAUS-RECIPR-3SG.ERG DET  
sqəłtmíx<sup>w</sup> iʔ mut l latáp.  
man DET sit LOC table

John always argues with the man who sits at the table.

Temporal adverbials also appear to force non-specific, narrow scope readings of *iʔ* DPs.<sup>12</sup> In (21) below, the *iʔ* DP cannot be interpreted specifically, since the same letter cannot arrive every day, but instead denotes a different non-specific individual for every afternoon. Okanagan DPs, unlike those in Lillooet, need not be bound to the utterance situation, since otherwise we predict only an infelicitous specific reading for the DPs in (21).

- (21) yaʕyaʕt iʔ sənyak<sup>w</sup>qín ac-kic-x iʔ qəy<sup>w</sup>-mín.  
all DET afternoon CUST-arrive-INTR DET write-INSTR  
Every afternoon a letter arrives.

(22) shows that Okanagan *iʔ* DPs also permit individual concept readings. An individual concept is of type <s,e>, a function from worlds/times to individuals. This is unlike the case for Lillooet assertion-of-existence determiners (Demirdache, 1996):

---

<sup>11</sup>The consultant prefers a specific reading of the DP in (19c), and will often retranslate such cases using an English definite determiner. I suggest that this is due to a pragmatic implicature (cf. section 5.3.3) which is based on the fact that while both (19c) and (19d) are available in non-specific contexts, the quasi-object in (19d) has only a non-specific reading.

<sup>12</sup>This may involve binding of implicit world and time arguments associated with the nominal. Cf also the E-type and bridging cases discussed in section 5.2.1.

- (22) cmay iʔ ylmíx<sup>w</sup>əm laʔkín iʔ tkłmilx<sup>w</sup>.  
 EPIS DET chief when DET woman  
 Maybe someday the chief will be a woman.

For (22), the referent of *iʔ ylmíx<sup>w</sup>əm* ‘the chief’ is any non-specific future individual who happens to be the chief at that future time. Data like these support an intensional analysis of *iʔ* DPs (cf. section 5.2.9).

Okanagan *t*, unlike *iʔ*, may only ever be used non-specifically, which is consistent with an analysis whereby quasi-objects are semantically incorporated (Van Geenhoven, 1998; Chung and Ladusaw, 2004; Carlson, 2006). By way of example, many realis relative clauses with quasi-object nominal heads (e.g. 23a) are ungrammatical, since the relative clause head must be interpreted specifically. In other words, *t sqəłtmíx<sup>w</sup>* ‘a man’ in (23a) must scope under negation since it can only be interpreted non-specifically, but *t* is inconsistent with the selectional restrictions of the relative clause restrictor, which as a formally transitive predicate requires that the head be introduced by *iʔ*, thus implying that a specific man was seen (Cf. chapter 6 for further discussion of relative clauses). (23a) is corrected to (23b), where the DP *iʔ sqəłtmíx<sup>w</sup>* allows a specific interpretation, similar to the English indefinite in (17a).

- (23) a. \*lut kn tə kaʔkíc-əm t sqəłtmíx<sup>w</sup> iʔ  
 NEG 1SG.ABS EMPH find-MID OBL man DET  
 wík-ən t spiʔscíft.  
 see-[DIR]-1SG.ERG OBL yesterday  
 # (?) I didn’t find a/any man that I saw yesterday.
- b. lut tə kaʔkíc-n iʔ sqəłtmíx<sup>w</sup> iʔ  
 NEG EMPH find-[DIR]-1SG.ERG DET man DET  
 wík-ən t spiʔscíft.  
 see-[DIR]-1SG.ERG OBL yesterday  
 I didn’t find the man that I saw yesterday.

Having established that Okanagan *iʔ* and *t* do not presuppose existence, presuppose or assert uniqueness or maximality, or encode specificity, I now move on

to further data showing how *i?* differs from both the English indefinite determiner *a* and Lillooet widest-scope assertion-of-existence determiners.

### 5.2.3 *i?* and *t* are not English-like Existential Indefinites

Okanagan *i?* is clearly not a definite determiner, but it is possible that it could be similar to a Russellian interpretation of the English indefinite determiner *a*, as represented by (24):

$$(24) \quad \llbracket a \rrbracket = \lambda P. \lambda Q. \exists x [P(x) \wedge Q(x)]$$

Assuming (24) for *i?* entails that *i?* asserts the existence of *some* individual that satisfies the nominal property. Since there is no presupposition or assertion of uniqueness associated with either *a* or *i?*, as we have seen, (24) might be taken as a plausible candidate for *i?*. Note that (24) allows the referent to be *any* individual which satisfies the nominal property. While DP co-reference is possible with (24), the availability of English definite *the* pragmatically blocks indefinite *a* DPs from being used co-referentially in most contexts (Heim, 2011). Given that Okanagan does not have a contrasting definite determiner, assuming (24) for *i?* predicts that there should be no pragmatic restrictions on *i?* DP co-reference.

Okanagan *iʔ* allows co-referential readings more easily than English *a*, which is as predicted given that *iʔ* may be used in definite contexts, and that there is no dedicated definite determiner to block co-referential interpretations. (25a) shows that in Okanagan, an *iʔ* DP does not force a co-referential reading, similarly to English indefinite *a*. (25b) shows that an *iʔ* DP may just as easily allow a co-referential reading as a non-co-referential one, however.<sup>13</sup>

<sup>13</sup>Within 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 Lillooet and Gerds and Hukari (2003) for Halkomelem). For example, a co-referential reading of (25a) is possible if there is a null pronominal in the second conjunct, rather than an overt DP (i):

- (i) wík-ən                      ixíʔ (iʔ    ʃwʰíʔ)                      l    ntqʰməlχ, ut  
 see-[DIR]-1SG.ERG    DEM    DET    mountain.goat    LOC    Quilchena    CONJ  
 wík-ən                      l    spáχmən.  
 see-[DIR]-1SG.ERG    LOC    (Spáχmən) Douglas.Lake  
 I saw a mountain goat in Quilchena, and I saw (the same one) in Spáχmən (Douglas  
 Lake).  
 (adapted from Matthewson (1999, ex.56)).

- (25) a. wík-ən                      iʔ    ʃʷʰiʔ                      l    nʔqʰməlɬ,  
           see-[DIR]-1SG.ERG DET mountain.goat LOC Quilchena  
           uʔ    wík-ən                      iʔ    ʃʷʰiʔ                      l  
           CONJ see-[DIR]-1SG.ERG DET mountain.goat LOC  
           spáʃmən.

Spáʃmən (Douglas.Lake)

I saw a mountain goat in Quilchena, and I saw a mountain goat in  
 Spáʃmən (Douglas Lake)            (adapted from Matthewson (1999, ex.56)).  
 Consultant's Comment: Good, 2 different goats.

- b. John n-ʔulqús-s                      iʔ    l    nʃlsʔáʔxʷtən, uʔ    Mary  
       John n-lift-[DIR]-3SG.ERG DET LOC window            CONJ Mary  
       n-xnú-s                      (iʔ    l    nʃlsʔáʔxʷtən).  
       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 "win-  
 dow".

Consider that in a context like (25a), it is implausible that the same mountain goat could be at Quilchena and Douglas Lake, since these two reserves are 15 kilometers apart, while in (25b), it is entirely plausible that Mary closed the same window which John opened. Note that in English, it is usually infelicitous to say *John opened a window, and Mary closed a window*, if in fact the intended referent is the same window.

More importantly, co-reference between two identical *iʔ* DPs is *preferred*, whenever possible. In (26), given that the same chief cannot be born in two separate places, the prediction is that if *iʔ* was the same as an English indefinite, the *iʔ* DP in the second conjunct could be used without *knaqs* 'another', but this is not the case. In other words, *knaqs* prevents co-reference between two occurrences of *iʔ ylmíxʷəm* 'the chief' in a context which requires two separate referents. Note that the context in (25a) strongly favors, but does not absolutely require, two separate

referents, which may also explain why *knaqs* is not required in (25a).<sup>14,15</sup>

- (26)    *qsápi*    *iʔ*    *ylmíx<sup>w</sup>əm*    *kʷúl-əl*    *l*    *Quilchena*    *uʔ*    *\*(iʔ*  
          long.ago DET chief        make-FRED LOC Quilchena CONJ DET  
          *knaqs*)   *iʔ*    *ylmíx<sup>w</sup>əm*    *kʷúl-əl*    *l*    *Vancouver*.  
          another DET chief        make-FRED LOC Vancouver  
          Long ago, a chief was born in Quilchena and a/another chief was born in  
          Vancouver.

Gillon (2006, 108) claims that in Squamish, co-reference between two deictic DPs with the same noun is expected, but that since maximality is only implicated and not asserted, pragmatics can overrule a co-referential reading. I claim that the same facts hold for the Okanagan determiner *iʔ*: the co-referential reading is pragmatically overruled in (25a), and overruled with some additional help from *knaqs* ‘another’ in (26).

Quasi-objects in Okanagan are consistently indefinite and non-specific, similarly to those in Moses-Columbian (N. Mattina 2006), and appear to pattern more closely to English indefinites than to *iʔ* DPs. Once a discourse referent has been introduced, it is infelicitous to refer back to the same referent with a quasi-object, as illustrated by (27a). The relevant contrasting nominal expressions are bolded.

- (27) a. #kn        *ʔaws-píx-əm*   *t*        *spiʔscíft*.   *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.

<sup>14</sup>There seems to be some speaker variation with regards to whether or not *knaqs* ‘another’ is needed to block co-reference for cases like (25-26).

<sup>15</sup>Example (26) contains the sequence *iʔ knaqs iʔ ylmíx<sup>w</sup>əm* ‘another chief’. According to the criteria developed in chapter 6, this should be a DP constituent containing a pre-posed relative clause, literally ‘the chief who is another’. The correctness of this hypothesis is unclear, however, since elements such as *knaqs* ‘one (HUMAN)’, which are ostensibly quantifiers, might not be able to project clauses. It is telling, however, (i) that simple nouns also appear as modifiers in this configuration, as (95) shows in chapter 8, and (ii) weak quantifiers like *x<sup>w</sup>ʔit* ‘many’ appear in this configuration, and function as main clause predicates. While more research needs to be done on “determiner doubling” in examples such as (26, cf. 40 below), I tentatively assume that relative clause modification is involved in these cases.

- I went hunting yesterday, and I saw a bear, and I shot the bear.

#### 5.2.4 *i?* is Different than a Lillooet Widest-scope Indefinite

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 (28, cf. 19a).

- For Okanagan, an unambiguous narrow scope reading of an object nominal may be achieved by using a quasi-object and an intransitive form, rather than an *i?* DP. Compare transitive (29a-30a) which have *i?* DP objects (highlighted), with (29b-30b) with quasi-objects (highlighted).

140



- (29) a. lut t̥ c-wík-st-n iʔ sqəltmíx<sup>w</sup>  
 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/the man washing dishes.
- b. lut t̥ kn c-wík-əm t sqəltmíx<sup>w</sup> t  
 NEG EMPH 1SG.ABS CUST-see-MID OBL man OBL  
 k-c-ncíw-əm-s.  
 k-CUST-wash.dishes-MID-3SG.POSS  
 I've never seen a man wash dishes.
- (30) a. ti iʔ sqilx<sup>w</sup> iʔ wík-ən, lut  
 EMPH DET native.people DET see-[DIR]-1SG.ERG NEG  
 wík-ən iʔ sm-sámaʔ.  
 see-[DIR]-1SG.ERG DET RED-white.people  
 I only see the Indian people, I didn't see any/the white people.
- b. ti iʔ sqilx<sup>w</sup> iʔ wík-ən, lut kn  
 EMPH DET native.people DET see-[DIR]-1SG.ERG NEG 1SG.ABS  
 t̥ wík-əm t sm-sámaʔ.  
 EMPH see-MID OBL RED-white.people  
 I only see the Indian people, I didn't see any white people.

Under their narrow scope readings, the two forms in each pair essentially convey the same meaning, however (29a-30a) have an additional wide-scope reading of the object nominal which (29b-30b) do not.

Okanagan *iʔ* DPs may scope under a modal, a fact which sets Okanagan *iʔ* apart from both Lillooet assertion-of-existence and Squamish deictic determiners (31). Additionally, section 5.2.1 showed that *iʔ* DPs permit both E-type and individual concept readings, neither of which are possible for Lillooet assertion-of-existence DPs.

- (31) Context: Set in a strange land, the speaker has no idea if any horses exist here.



(33) a. Maximality implicature:

f = MAX

b. Conversational implicature:

Because the default for *i?* is f = MAX, a speaker's use of an intransitive construction with a quasi-object introduced by *t* carries a conversational implicature of non-maximality.

An implicature of maximality is evident from comparing (34a) with (34b). For (34a), the implication is that *all* the berries were eaten, but this implicature is cancellable (34b).

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

a. ʔit-ən                      iʔ    s-p'ýq-ałq.  
eat-[DIR]-1SG.ERG    DET    NOM-ripe-fruit  
I ate (all) the berries.

b. ʔit-ən                      iʔ    s-p'ýq-ałq,      náxəmł    ilíʔ  
eat-[DIR]-1SG.ERG    DET    NOM-ripe-fruit    CONJ    DEM  
kim-xt-m-n                      iʔ    s-p'ýq-ałq.  
except-BEN-2SG.OBJ-1SG.ERG    DET    NOM-ripe-fruit  
I ate some/#the berries, but I saved you some.

An implicature of uniqueness is apparent in many question-and-answer contexts involving *i?* DPs. Consider (35) uttered in a context where my friend and I are tossing around a ball, and my friend throws it to me while I am not looking. The DP *iʔ púk<sup>w</sup>laʔ* denotes a definite ball in (35), and it is only felicitous to answer (35) using an *i?* DP (36a).

(35) xʔkínəm    iʔ    púk<sup>w</sup>laʔ?  
where    DET    ball  
Where is the ball?

- (36) a. cǝmi[n]-n                      iʔ    púk<sup>w</sup>laʔ.  
           throw-[DIR]-1SG.ERG    DET    ball  
           I threw the/#a ball.
- b. #kn            cǝmín-əm    t    púk<sup>w</sup>laʔ.  
           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<sup>w</sup>laʔ* in (36a) certainly denotes the unique ball in the discourse context, but as I have shown, the fact that only (36a) is felicitous cannot be due to any presupposition or assertion of uniqueness associated with *iʔ*. Instead, this follows simply from the fact that *iʔ* is sensitive to the context. Responses involving quasi-objects (36b) are infelicitous in these contexts because *t* is not contextually sensitive, and as such can only be interpreted as infelicitously introducing a new discourse referent.

The opposite pattern obtains in question-and-answer contexts where the question includes a quasi-object. Consider (37) uttered in a context where two friends are discussing their ravaged garden, and are wondering who or what could possibly have been the culprit. A felicitous answer must include an oblique marked nominal (38a).

- (37)    uc    k<sup>w</sup>            wík-əm    t    spəplínaʔ?  
           DUB    2SG.ABS    see-MID    OBL    rabbit  
           Did you see a/any/some rabbit(s)?
- (38) a. way<sup>ʔ</sup>    kn            wík-əm    t    spəplínaʔ.  
           yes    1SG.ABS    see-MID    OBL    rabbit  
           Yes, I saw a/some rabbit(s).
- b. #way<sup>ʔ</sup>    wík-ən                      iʔ    spəplínaʔ.  
           yes    see-[DIR]-1SG.ERG    DET    rabbit  
           Yes, I saw a/some rabbit(s).

Since *t* is always non-maximal, the questioner in (37) is not referencing any maximal set of rabbits, yet (38b) answers (37) as if the questioner *had* been imply-

ing reference to a maximal set of rabbits.

The implicature of uniqueness and maximality associated with *i?* is reinforced by the scalar opposition which holds between *i?* and *t*, as exemplified by (39).

- (39) a. kn        ʔaws-píʔ-əm uʔ    kn        tʔap-ám    t    sʔaʔcínəm,  
           1SG.ABS go-hunt-MID CONJ 1SG.ABS shoot-MID OBL deer  
           uʔ    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-píʔ-əm uʔ    kn        tʔap-ám    t    sʔaʔcínəm,  
           1SG.ABS go-hunt-MID CONJ 1SG.ABS shoot-MID OBL deer  
           uʔ    kn        ks-kʷlncút-aʔx t    **sʔaʔcínəm.**  
           CONJ 1SG.ABS FUT-cook-INTR 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 (39a), a speaker implies that the maximal sub-part of *i?* *sʔaʔcínəm* 'the deer' is being cooked (in this case a contextually salient individual), while for the quasi-object in (39b), maximality is not implied. The scalar relation between *i?* and *t* gives rise to a non-maximal, partitive-like reading. I claim that this cannot be an actual partitive reading, however, but involves only pragmatic inferencing: With regards to (39b), if you shoot some deer, the deer you cook is likely to involve whatever deer it was that you shot. It is important to show that true partitive readings are not possible with *t*, since I am claiming that *t* is semantically vacuous and does not reference the context.

(40) below supports the hypothesis that true partitive readings are not possible with *t*. In (40a), the *i?* DP in the second conjunct refers to one of the four blankets in the first conjunct. In other words, the context set in this case includes four blankets, and the *i?* DP in the second conjunct singles out one of these. In (40b) the quasi-object cannot refer to one of the blankets in the first conjunct, since *t* does not reference the context. Pragmatic inferencing is not a complicating factor

in (40), as it may be in (39), since ‘making a blanket’ does not follow from ‘putting a blanket down in a trunk’, especially since the blankets in the trunk are already made. In sum, if true partitive readings were possible with *t*, then the prediction is that (40b) should have a partitive reading available, but this is not the case.

- (40) a. mus t      sícəm      ac-n-qmí[n]-n      i?      1  
          four ATTR blankets CUST-LOC-lay.down-[DIR]-1SG.ERG DET LOC  
          trunk, kʷúl-ən      i?      naqs i?      sícəm.  
          trunk make-[DIR]-1SG.ERG DET one DET blanket  
          There are four blankets that I put in the trunk, I made one of them.

- b. mus t      sícəm      ac-n-qmí[n]-n      i?      1  
          four ATTR blankets CUST-LOC-lay.down-[DIR]-1SG.ERG DET LOC  
          trunk, uł      kn      kʷúl-əm      t      naqs t      sícəm.  
          trunk CONJ 1SG.ABS make-MID OBL one ATTR blanket  
          There are four blankets that I put 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, and possibly restricted set. For context sets involving single referents, 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 (33a). For context sets involving multiple referents, the referent of an *i?* DP will be interpreted as maximal in its context, unless a singular noun is used to denote one individual from within the context set, or there is an overt cancellation of the maximality implicature (33a).<sup>18</sup> By using oblique *t*, however, it is understood that the speaker is *not* referencing a contextually-salient set (33b).

It is infelicitous to use an *i?* DP if it is explicit from the context that the set is empty. Consider the following exchange. In (41), 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 DP *i? ylmíxʷəm*.<sup>19</sup>

<sup>18</sup>Plurality is not obligatorily marked on Okanagan nouns. Some nouns mark plurality suppletively or by reduplication, while for others, the singular and plural forms are identical.

<sup>19</sup>Note that (41) is similar to examples like (6) in section 5.2.1 showing that *i?* DPs may have

(41) A: kn níxəl' ʒast ʔaʔ c-qʷəlqʷílt iʔ ylmíxʷəm.  
 1SG.ABS hear good COMP CUST-speak DET chief  
 I heard that the (your) chief is a good speaker.

B: lut kʷu tə kʔ-ylmíxʷəm, uʔ sxʔkinx mi ʒast  
 NEG 1PL.ABS EMPH HAVE-chief CONJ how FUT good  
 ʔaʔ c-qʷəlqʷílt (#iʔ ylmíxʷəm).  
 COMP CUST-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 arising from B's use of *iʔ* results in infelicity, because B's initial clause asserts that the contextually-relevant set of chiefs is empty.

In sum, the data show that *iʔ* allows both specific and non-specific readings, and is felicitous in both definite and indefinite contexts. The case-marker *t* allows only non-specific readings and cannot be used as a definite. I claim that *iʔ* carries an implicature of uniqueness/maximality (33), while *t* does not since it does not access the context set.

### 5.2.6 *iʔ* does not Create a Generalized Quantifier

The distribution of Okanagan *iʔ* DPs provides some evidence that they cannot be generalized quantifiers of type  $\langle\langle e, t \rangle, t \rangle$  (Barwise and Cooper, 1981), but instead always denote individuals of type *e* (Matthewson, 1998) or  $\langle s, e \rangle$ . While empirical evidence against generalized quantifiers in Okanagan remains sketchy at this point, support for this idea nevertheless comes from data showing that the universal quantifier *yaʕyáʕt* 'all', which itself never occurs in D position, can only associate with an *iʔ* DP (42), and never with a quasi-object (43):

---

E-type readings. The difference with (6) 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 (41), which follows if there is no maximality or uniqueness implicature associated with *pro* (cf. Matthewson (2008) for a discussion of related differences between full DPs and *pro* in Lillooet).

- (42)     $\eta\acute{\imath}\acute{\imath}\text{-}\acute{\alpha}\text{n}$                       ( $\text{ya}\eta\text{y}\acute{\alpha}\eta\text{t}$ )  $i\eta$      $\text{q}\acute{\alpha}\text{qx}^{\text{w}}\acute{\alpha}\text{l}\text{x}$ .  
          eat-[DIR]-1SG.ERG (all)            DET fish  
          I ate (all) the fish.
- (43)     $\text{kn}$              $\eta\acute{\imath}\text{n}$             ( $*\text{ya}\eta\text{y}\acute{\alpha}\eta\text{t}$ )  $\text{t}$      $\text{q}\acute{\alpha}\text{qx}^{\text{w}}\acute{\alpha}\text{l}\text{x}$ .  
          1SG.ABS eat(INTR) (\*all)            OBL fish  
          I ate all the fish.

These data constitute evidence that the determiner *i?* is not a semantically vacuous agreement or case marker, but is instead a necessary step for deriving a strongly quantified DP (Matthewson, 1998, 2001). I suggest that *i?* provides the necessary domain for the strong quantifier, a domain which neither a quasi-object nor a bare nominal NP can provide. In other words, DP-adjoined strong quantifiers like *yaηyáηt* ‘all’ in Okanagan require arguments of type *e* (cf. Matthewson (1998) for Lillooet), but oblique quasi-objects and bare NPs both denote sets of type  $\langle e, t \rangle$ . Under the assumption that a strong quantifier cannot select for a generalized quantifier argument of type  $\langle \langle e, t \rangle, t \rangle$  (contra Giannakidou (2004)), these data also provide evidence that *i?* does not create a generalized quantifier.

Further evidence against a GQ-forming analysis of *i?* may come from restrictions on distributive readings. Okanagan *i?* DPs allow less-than-widest-scope readings, as shown by their ability to scope under negation and modals (section 5.2.4). They nevertheless seem to disallow distributive readings, similar to Lillooet (Matthewson, 1999; Davis, 2010b), which is unexpected under a GQ analysis.<sup>20</sup> (44a) shows that a DP including the noun *ikámilx<sup>w</sup>* ‘woman’ cannot be interpreted as scoping under the quantified subject, and (44b) shows the same thing for the DP *i? sk<sup>w</sup>k<sup>w</sup>íyməlt* ‘the child’. In other words, (44a) cannot be interpreted as every man being loved by a different woman, and (44b) cannot mean that each woman kissed a different child.

<sup>20</sup>Davis (2010b) analyzes the equivalent of strong quantifiers in Lillooet as domain-adjusting operators over the denotations of plural DPs, following Brisson (1998).



- (44) a. #yaŋyáŋt iʔ s-qəl-qəltmíx<sup>w</sup> ʃmínk-nt-əm iʔ t tkłmilx<sup>w</sup>.  
all DET NOM-RED-man like-DIR-PASS DET OBL woman  
Target: Every man has a woman who love(s) him. (adapted from  
Matthewson (2008, ex.54))  
Literally: Every man is loved by a woman.  
Consultant's Comment: All the men were loved by this one woman.
- b. #yaŋyáŋt iʔ s-maʔ-mʔím ʃəm-ʃúm-qs-əs  
all DET NOM-RED-women RED-suck-nose-[DIR]-3SG.ERG  
iʔ s-k<sup>w</sup>-k<sup>w</sup>iy-m-əlt.  
DET NOM-small-m-child  
Target: All the women kiss a child (different children.)  
Consultant's Comment: You need to say *scəcmálaʔ* 'children'.

In contexts where more than one woman or child is under discussion, the suppletive plural forms *smaʔmʔím* 'women' and *scəcmálaʔ* 'children' must be used, but plural objects in these contexts do not have clear distributive readings, but are rather consistent with cumulative interpretations (e.g. *All the men are loved by the women*) (Davis, 2010b).<sup>21</sup>

A cornerstone of Matthewson's (1999) argument that DPs in Lillooet are not generalized quantifiers comes from data showing that they are scopally inert, and therefore always take widest-scope. Although Okanagan *iʔ* DPs do not necessarily take widest-scope, as we have seen, they apparently do scope over distributive operators.<sup>22</sup> This receives explanation under the assumption that *iʔ* does not create a generalized quantifier. This problem requires further research, however.

### 5.2.7 Existential Sentences and *iʔ* DPs

For Okanagan, *iʔ* DPs are commonly volunteered as subjects of sentences denoting existential propositions (45). Matthewson (1999) cites similar data for Lillooet

<sup>21</sup>Alternatively, (44) may involve an English-like dependent plurality (Hotze Rullmann, p.c.), where the plurality of the object must match that of the subject. This problem requires further work.

<sup>22</sup>The choice function seems to scope over the distributive operator. That is, at most one singular or plural individual can be denoted by an *iʔ* DP, and a narrow scope interpretation does not entail that a distributive interpretation also be available. This issue requires further investigation.

assertion-of-existence determiners, and Gillon (2006, 87) for Squamish deictic determiners. In many existential contexts, forms like (45a) are interchangeable with forms like (45b), which do not have *iʔ* DP subjects, but rather prefix a nominal predicate with (*ʔa*)*kʔ*- “have”.<sup>23</sup>

- (45) a. *iklʔ iʔ sʔaʔcínəm iʔ kʔ wist.*  
 DEM DET deer DET LOC high  
 There’s deer up in the hills.
- b. *iklʔ kʔ-sʔaʔcínəm iʔ kʔ wist.*  
 DEM HAVE-deer DET LOC up.high  
 There’s deer up in the hills.

Below, (46a) shows that *iʔ* is compatible with the non-proportional weak quantifier *xʷʔit* “many” in these contexts,<sup>24</sup> but not the strong quantifier *yaʔyáʔt* “all” (46b). 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).

- (46) a. *xʷʔit iʔ siwʔkʷ kʔ kaʔʔús.*  
 many DET water LOC over.the.hill  
 There is a lot of water over that hill.
- b. *\*yaʔyáʔt iʔ siwʔkʷ kʔ kaʔʔús.*  
 all DET water LOC over.the.hill  
 There is all the water over that hill.

<sup>23</sup>These 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.

<sup>24</sup>The quantifier is the syntactic predicate in these sentences. Strong quantifiers cannot function as predicates in Salish (Matthewson, 1998, 278).

### 5.2.8 Generic Readings of *i?* DPs

Generic interpretations of nouns require the *i?* determiner in Okanagan (47a,b).<sup>25</sup> I claim that generic *i?* DPs denote intensional maximal pluralities of type <s,e> (Chierchia, 1998), and that appealing to kinds (Carlson, 1977) as a distinct type of individual is unnecessary for Okanagan. Intensionality is a necessary component to this analysis for two reasons: (i) certain predicates (e.g. unicorns, griffins, sasquatches, etc.) do not have instantiations in the actual world, but do in certain possible worlds; and (ii) exceptions can be made to a generic statement, e.g. *Dogs like to run, but my dog doesn't*, which under a purely extensional analysis would be contradictory.

An analysis like that of Chierchia (1998) is supported for Okanagan by the fact that any sentence containing a DP with a generic interpretation also has a non-generic interpretation available. For example, the sentences in (47a,b) allow generic interpretations of the subject *i?* DPs given an appropriate context, yet also have non-generic interpretations available, equivalent to *The bear(s) like(s) the saskatoons* and *The dog likes to run*.

- (47) a. *i?* s-(km)-kəmxíst ʃmink-s *i?* síya?  
 DET bear(s) like-[CAUS]-3SG.ERG DET saskatoon.berry  
 (All) bears like saskatoon berries.
- b. *i?* kəkwap táʔliʔ ʃmink-s *i?* snax<sup>w</sup>t.  
 DET dog very like-[CAUS]-3SG.ERG DET run(ANIMAL)  
 Dogs really like to run.

Consider that some predicates in English do not distribute to atomic individuals, but only apply to kinds (Carlson, 1977) (48):

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

The predication “get bigger as you go north” is not true of any atomic individual bear, but only the kind “bear”. Independent evidence for kind-denoting nominals is not forthcoming for Okanagan, however. (49) was elicited as a translation of the

<sup>25</sup>Similar data exist for Shuswap (Gardiner, 1993), and Lillooet (Matthewson, 1998). Determiners are apparently optional in generic contexts in Moses-Columbian N. Mattina (2006, 127).

generic sentence (48), but was later translated back into English as an existential sentence:

- (49)    *kʷl    ʕaʔt    iʔ    təmx<sup>w</sup>úlaʔx<sup>w</sup>,    taʔlíʔ    k<sup>w</sup>uk<sup>w</sup>    písʔat    iʔ*  
          LOC cold DET ground                    very    REP    large.PL DET  
          *kiʔláwna    naʔʔ    skəmxíst.*  
          grizzly.bear CONJ black.bear

Target: Grizzlies and black bears get bigger as you go north.

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

Under an existential interpretation of (49), the complex DP *iʔ kiʔláwnaʔ naʔʔ skəmxíst* denotes non-specific individual grizzlies and black bears, not their corresponding kinds. The generalization seems to be that if an Okanagan sentence has a generic interpretation, it also has either an episodic (47) or an existential interpretation (49). I take this as evidence that the *iʔ* DPs within these sentences denote individuals rather than kinds.<sup>26</sup>

By assuming that kinds reduce to contextually unrestricted, intensional maximal pluralities in Okanagan, generic readings fall out independently. In other words, a generic versus non-generic interpretation of an Okanagan *iʔ* DP depends on whether the DP denotes all individuals in some world which satisfy a property (i.e. an intensional, contextually unrestricted maximal plural individual), or a subset of individuals which satisfy a property (i.e. a non-maximal singular or plural individual).

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

<sup>26</sup>Demonstratives, too, can denote maximal pluralities. In (i) below (cf. 21b above, a minimal pair sentence without the demonstrative), the *iʔ* 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)    *ʔʔ-ən                    ixíʔ    iʔ    qáqx<sup>w</sup>əlx    yaʔyáʔt    sʔəlʔʔáʔt.*  
       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.

definite plurals in generic contexts (Chierchia, 1998). Okanagan is therefore not typologically unusual in allowing generic interpretations of plural DPs,<sup>27</sup> and so there is precedent for reducing kind readings to intensional maximal pluralities for some languages. Under this analysis, the absence of contextual restriction is crucial, since if a nominal with individuals in its extension is contextually restricted, a generic reading will not be possible.

Intensionality, as a necessary component of a Chierchia-style analysis of generic readings, is independently motivated for Okanagan *i?* DPs in non-generic contexts. I turn now to this data.

### 5.2.9 Intensionality and *i?* DPs

Data like (50-51) show that the determiner *i?* is compatible with non-deictic, non-specific interpretations. They also show that *i?* DPs permit individual concept readings (Enç, 1981; Demirdache, 1996), and are therefore of type <s,e>. In other words, the DP *i?* *ylmíx<sup>w</sup>əm* ‘the chief’ in (50-51) does not necessarily pick out a single individual, but whoever happens to be chief at some particular time.

- (50) *cmay i?* *ylmíx<sup>w</sup>əm* *laʔkín i?* *tkłmilx<sup>w</sup>*.  
 EPIS DET chief when DET woman  
 Someday the chief will be a woman.

- (51) *i?* *ylmíx<sup>w</sup>əm* *nyʔip* *ks-ʔaʔ-ʔaʔ-ús-aʔx* *t* *pǃpǃxt*  
 DET chief always FUT-RED-look.for-eye-INCEPT OBL smart  
*t* *tkłmilx<sup>w</sup>* *mi* *sic* *ylmíx<sup>w</sup>əm*.  
 OBL woman FUT before chief

A chief always has to look for a smart woman in order to get elected.

For Okanagan, there is an ambiguity in whether an *i?* DP like *i?* *ylmíx<sup>w</sup>əm* ‘the chief’ has an extensional, or an intensional reading. Under an extensional reading, *i?* *ylmíx<sup>w</sup>əm* ‘the chief’ has a specific or non-specific interpretation, depending on the context. For (50-51), *i?* *ylmíx<sup>w</sup>əm* clearly does not denote a specific chief. For (50), it denotes an individual in some possible world that has the property of

<sup>27</sup>Recall that bare plurals are independently ruled out in Okanagan, since bare nominals are always ungrammatical in non-predicative positions (cf. Matthewson (2001, 185) for Lillooet).

being a chief in that world, and for (51), it denotes whoever happens to be the chief in every possible world. These are intensional readings of *i?* DPs, where the referent is determined by the accessible worlds of an epistemic modal like *cmay* ‘might/maybe’ in (50) (Menzies, 2012), or ‘future’ *ks-* in (51).

There is further evidence for an intensional analysis of *i?* DPs, involving a nominal prefix in Okanagan, *kł-* ‘to be’ which usually (52a) but not always (52b) co-occurs with a possessive affix (A. Mattina 1996a):<sup>28</sup>

- (52) a. *i-kł-cítx<sup>w</sup>*  
           1 SG.POSS-TO.BE-house  
           my house-to-be (A. Mattina 1996a, 239)
- b. *k<sup>w</sup> kł-ylmíx<sup>w</sup>əm.*  
           2 SG.ABS TO.BE-chief  
           You will be a chief.  
           You are a chief-to-be. (A. Mattina 1996a, 239)

I suggest that *kł-* ‘to be’ may be analyzed semantically as follows (cf. Matthewson (2006b) for a similar analysis of Lillooet *kelh*).

$$(53) \quad \llbracket kł- \rrbracket = \lambda P \lambda x \lambda t \lambda w \exists t' \exists w' [P(x)(t')(w') \wedge R(w, w') \wedge t < t']$$

The formula in (53) takes an NP predicate as an argument, and converts it into an intensional predicate, of type  $\langle e, \langle i, \langle s, t \rangle \rangle \rangle$ .<sup>29</sup> The proposition is true if the predicate is true of the subject argument in some world  $w'$  which stands in an accessibility relation  $R$  to the evaluation world  $w$ , and at some time  $t'$  which follows the utterance time  $t$ . Sentence (52b) may be represented as in (54), meaning essentially ‘You are the chief at some future time in some close possible world.’ The idea is that (52b) is false if ‘you’ are ‘a chief’ in the utterance world at the present time, but true if ‘you’ are ‘a chief’ in some closely accessible world at a future time.

$$(54) \quad \lambda t \lambda w \exists t' \exists w' [chief(you)(t')(w') \wedge R(w, w') \wedge t < t']$$

<sup>28</sup>A. Mattina (1996a) claims that the nominal prefix *kł-* is distinct from the verbal future prefix *ks-*, since there is complementary distribution of these two prefixes across the two word classes.

<sup>29</sup>Type *i* refers to time intervals.

The crucial point here is that these intensional predicates can be complements of an *i?* determiner, as shown below in (55a,b) *i? kɬylmíxʷəm* ‘the chief-to-be’.

- (55) a. cak<sup>w</sup> Spike ɬa? k[ɬ]-sq<sup>w</sup>si?, cmay ixí? i? kɬ-ylmíxʷəm.  
 BOUL Spike COMP HAVE-son EPIS DEM DET TO.BE-chief  
 If Spike had a son, I guess that would be the chief.
- b. incá i? kɬ-ylmíxʷəm.  
 1SG.INDEP DET TO.BE-chief  
 I’m gonna be the chief.

Similar to the case of *i? ylmíxʷəm* ‘the chief’ in (50), the referent of *i? kɬ-ylmíxʷəm* ‘the chief-to-be’ in (55a,b) cannot be found by choosing a member of the set of actual world chiefs. I suggest that *i? kɬ-ylmíxʷəm* ‘the chief-to-be’ in (55a,b) denotes an intensional individual, of type  $\langle s, e \rangle$ .<sup>30</sup>

This implies that an *i?* determiner can select for either an extensional predicate of type  $\langle e, t \rangle$ , or an intensional predicate of type  $\langle e, \langle s, t \rangle \rangle$ . Given that ‘extensional’ *i?* DPs also allow intensional readings, I suggest that an implicit world variable is always present as part of domain restriction, and that an *i?* DP may always denote an intensional individual, of type  $\langle s, e \rangle$ . This is an important component in my analysis of DP-DP structures, and has played a role in some analyses of equative copular clauses in English, where one of the arguments denotes an intensional individual (Romero, 2005).

### 5.2.10 Summary

Okanagan *i?* closely resembles Squamish deictic determiners in being non-definite and contextually sensitive, but does not have any obvious deictic features, in contrast to both Lillooet and Squamish. The absence of deictic features (and the availability of existential closure of a choice function variable *f* at any level, cf. section 5.3) plausibly explains the fact that *i?* permits non-specific and other narrow scope interpretations. *i?* nevertheless carries a uniqueness/maximality implicature

<sup>30</sup>I am abstracting away from time intervals (type *i*) by making this statement. For the purposes of this thesis, the *s* type may be understood as representing world/time pairs: With *kɬ-* prefixed nouns, these must be future world/time pairs; for bare nouns (which also allow intensional readings), there is no temporal restriction.

which favors co-referential interpretations for DPs, context permitting. This distinguishes *i?* from the English indefinite determiner. Maximal interpretations of *i?* DPs include definite and generic-like interpretations. Non-maximal interpretations include existential, non-specific, and other indefinite uses.

In the next section (5.3), I analyze *i?* as being sensitive to contextual domain restriction, since (i) the choice function can pick out any singular or plural individual within the intersection of the nominal and contextual domains, and (ii) the nominal domain can be a subset of the contextual domain (i.e. domain restriction is vacuous). The case-marker *t* is not a determiner, and always exhibits narrow-scope, non-specific readings. As such, I analyze *t* as indicating semantic incorporation of the noun (Van Geenhoven, 1998; Chung and Ladusaw, 2004; Carlson, 2006). Though *i?* can also be used in narrow-scope, non-specific contexts, it conversationally implicates uniqueness/maximality from the fact that *i?*, unlike *t*, can access a contextually restricted domain.

## 5.3 Analysis

### 5.3.1 Okanagan *i?*

The semantic analysis I propose for the Okanagan determiner *i?* is the same as that argued for by Gillon (2006, 10) for Squamish deictic determiners (56a), but with intensionality built in, as in (56b).<sup>31</sup> I assume that intensionality ultimately derives from nouns (as represented below in 5.1).

$$(56) \text{ a. } \llbracket \text{ta} \rrbracket = \lambda P[f(\lambda x[P(x) \wedge C(x)])] \quad (\text{Squamish, Gillon (2006, 10)})$$

$$\text{ b. } \llbracket i? \rrbracket = \lambda P \lambda w[f(\lambda x[P(x)(w) \wedge C(x)(w)])] \quad (\text{Okanagan})$$

In (56b), a variable over choice functions, *f*, selects one singular or plural individual from the intersection of the context set *C* and the nominal property *P*. The world variable *w* allows the referent of the individual selected by the choice function to vary across worlds, and *w* is existentially bound by either the utterance world or by

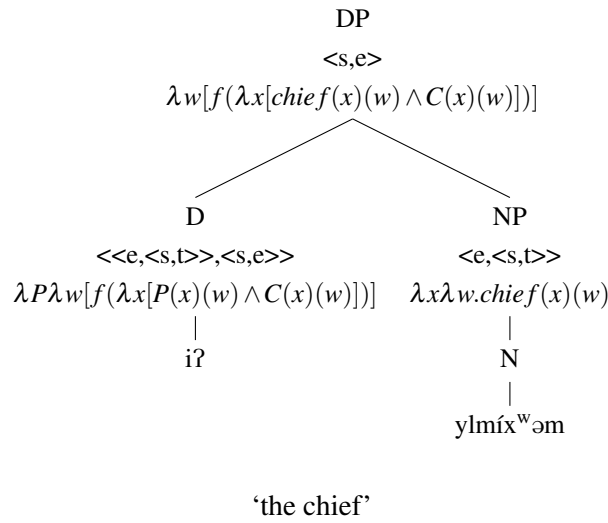
<sup>31</sup>The difference between Squamish and Okanagan, as represented in (56) is probably not substantive, but rather Gillon (2006) is abstracting away from intensionality.



a higher modal operator. Under this analysis, Okanagan *i?* creates an expression of type  $\langle s, e \rangle$ .

I assume that the world variable may either be bound by a modal or other operator, resulting in an intensional reading, or at the level of discourse by being identified with the actual world, creating an essentially referential expression. A derivation of a basic *i?* DP *i? ylmíx<sup>w</sup>əm* ‘the chief’ is shown in Figure 5.1.<sup>32</sup>

**Figure 5.1:** Semantic Composition of an Okanagan *i?* DP, Example I



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

- i. The level at which existential closure of the choice function variable occurs
- ii. Whether a higher intensional operator (e.g. a modal) shifts the interpretation world, or whether the absence of such an operator allows the intension to be applied to the actual world
- iii. The number of individuals in the intersection between P and C
- iv. Whether a maximal or non-maximal individual is selected by the choice

<sup>32</sup>Semantic composition of an *i?* DP containing a nominal prefixed by *kí-* ‘to be’ (cf. 55) is necessarily more complex: since time variables are involved with such nouns, the denotation of *i?* must also be modified to include times. Since this is a more general problem relating to the semantics of determiners, cross-linguistically speaking, I abstract away from times in my definition of *i?*.

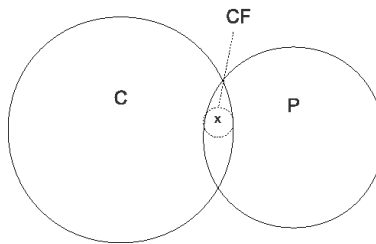
function

Concerning factor (i), I assume that existential closure of the choice function variable may occur at any level (Reinhart, 1997). This correctly derives both wide- and narrow-scope readings of *i?* DPs, and crucially differs from Matthewson's (1999) analysis of Lillooet assertion-of-existence DPs, which must be existentially closed at the highest level, i.e. the speaker's discourse situation.

Concerning factor (ii), if there is a higher intensional operator such as a modal which shifts the interpretation world, an intensional, non-referential interpretation of the *i?* DP will result. If there is no such higher operator, then the intension of the sentence is applied to the actual world, and a referential reading of the *i?* DP will result. For *i?* DPs which involve a *kt-* prefixed NP (cf. 53), the intension of the individual denoted by the *i?* DP is applied to some possible world, regardless of the presence or absence of a higher modal operator.

Concerning factors (iii) and (iv), a set of schematic representations may be helpful (I abstract away from intensionality, but provide cross-referencing to relevant Okanagan examples next to the figure captions). The following diagrams represent discourse states: C stands for the set of contextually salient individuals, and P stands for a nominal property. In definite contexts, where a discourse referent has already been established, the intersection of P and C includes only one singular or plural individual *x*. The choice function associated with the determiner must select that maximal individual, as represented in Figure 5.2. In this case, the default maximality implicature, *f* = MAX, is satisfied.

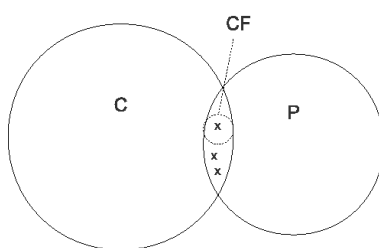
**Figure 5.2:** Domain Restriction in Definite Contexts (e.g. 36a)



For restricted contexts involving multiple possible referents, if the determiner

does not select the entire set as a maximal plural individual, as in Figure 5.2, then it must select one individual from the intersection of  $C$  and  $P$ , as in Figure 5.3. In such a context, a speaker may achieve either a specific interpretation, for instance by pointing or using some other demonstrative gesture, or a non-specific interpretation, in which case the choice function selects any individual, and a narrow scope interpretation results. In these cases, the default maximality implicature,  $f = \text{MAX}$ , is cancelled.

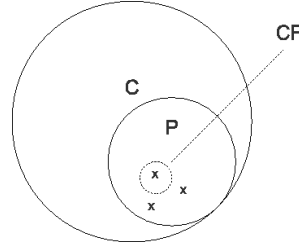
**Figure 5.3:** Domain Restriction in Non-Unique Contexts (e.g. 10)



In some indefinite contexts, such as at the beginning of a text or in an existential sentence, there is no contextual restriction of  $P$ , and  $P$  is a subset of  $C$ .<sup>33</sup> Since there is no contextual restriction, the choice function may potentially select *any* individual in the domain of  $P$ . Once again, in these cases the default maximality implicature,  $f = \text{MAX}$ , is cancelled.

<sup>33</sup>In other words, as part of the interlocutors' shared beliefs about individuals which inhabit the actual and possible worlds,  $C$  is equal to  $D_e$  in out-of-the-blue cases.

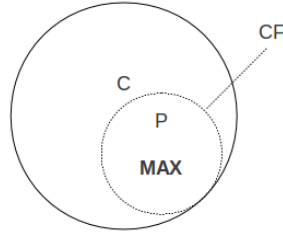
**Figure 5.4:** Domain Restriction in Indefinite and Existential Contexts (e.g. 15 and 28)



We see that Figures 5.3 and 5.4 are equivalent except that there is no domain restriction in Figure 5.4. Figure 5.4 is a pre-requisite discourse state for a non-specific, existential interpretation of an *i?* DP. In existential sentences, the entire domain of P is contextually salient ( $P \subseteq C$ ), a non-maximal singular or plural individual selected by a 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 non-specific instantiations of a contextually unrestricted set.

Generic interpretations of *i?* DPs differ from other indefinite uses of *i?* DPs only in the sense that an intensional maximal plural individual is chosen from a contextually unrestricted domain. Because *i?* may independently denote contextually unrestricted non-maximal pluralities (cf. section 3.2.7), and does not presuppose or assert maximality (cf. section 3.2), but allows maximal readings in definite contexts (cf. section 3.2.5), it is logical that *i?* 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 (Figure 5.5). The default maximality implicature,  $f = \text{MAX}$ , is satisfied here.

**Figure 5.5:** Generic Interpretations of Okanagan DPs (e.g. 47)



The interaction between domain restriction and whether the choice function selects a maximal or non-maximal individual (factors iii/iv) yields a four-way split, shown as Table 5.2.

**Table 5.2:** Set Intersection and Maximality with Okanagan *i?*

|                        | <b>maximal</b>                     | <b>non-maximal</b>   |
|------------------------|------------------------------------|--|
| $P \subseteq C$        | generic<br>(Figure 5.5, ex.47)     | existential/non-restricted indefinite<br>(Figure 5.4, ex.45) |
| $(P \cap C) \subset P$ | definite<br>(Figure 5.2, ex.35-36) | restricted indefinite<br>(Figure 5.3, ex.10)                 |

In sum, the domain restriction analysis of *i?* given as (56b) explains the absence of any deictic features, the absence of any presupposition or assertion of uniqueness/maximality, the availability of narrow-scope readings, and predicts the availability of existential and generic readings.

### 5.3.2 Okanagan *t*

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 are “consistently nonspecific in their interpretations.” Mattina’s observation accurately describes quasi-objects in Okanagan as well.

The oblique marker *t* does not employ domain restriction, which is predicted

under an analysis like Gillon (2009), since *t* is not a category D item (cf. chapter 4). Since there is little evidence for a null determiner, I claim that the oblique marker *t*, when it introduces a quasi-object of a formally intransitive predicate, is a semantically vacuous indicator that the NP is undergoing semantic incorporation (Van Geenhoven, 1998; Chung and Ladusaw, 2004; Farkas and de Swart, 2004; Carlson, 2006).<sup>34</sup>

For Van Geenhoven (1998), semantic incorporation involves a nominal predicate of type  $\langle e, t \rangle$  (or  $\langle s, \langle e, t \rangle \rangle$  in an intensional setting) that functions as an argument of an incorporating verb. The incorporating verb introduces an existentially bound, entity-denoting variable which is asserted to have the property denoted by the incorporated noun. For Okanagan, the semantics of incorporation can be written directly into the denotation of the intransitivizer. For example, the intransitivizer suffix *-əm* may be represented as follows (minus world variables):<sup>35</sup>

$$(57) \quad \llbracket -əm \rrbracket = \lambda P \lambda Q \lambda x \exists y [P(y)(x) \wedge Q(y)]$$

For (57), the intransitivizer *-əm* takes a transitive root *P* as its first argument,<sup>36</sup> and a set-denoting quasi-object as its second argument *Q*, 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*. The identity of the individual *y* is crucially not dependent on the context.<sup>37</sup> A semantic derivation of the quasi-object containing VP

<sup>34</sup>Themes of transitive applicatives (i.e. predicates which are ditransitivized by *-x(i)t-*) are also introduced by *t*. N. Mattina (1996b, 49) notes that both quasi-objects of middle intransitives (a.k.a. generic objects) and benefactive (a.k.a. dative) themes are ‘generic’, or non-referential, and so it may be possible to analyze these as incorporated objects.

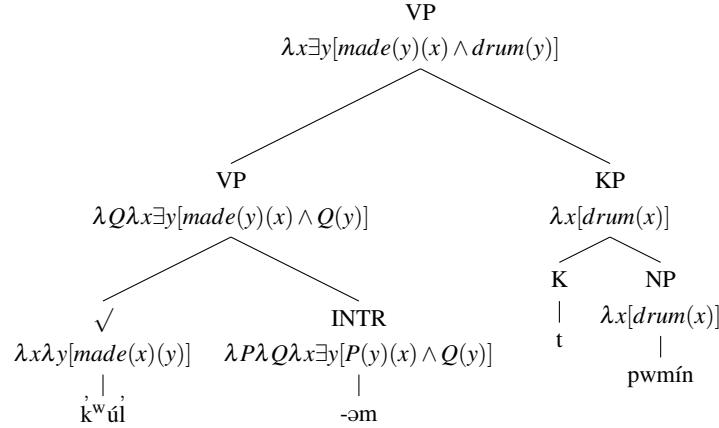
<sup>35</sup>The morpheme *-əm* also occurs with syntactically transitive predicates with possessor subjects. These predicates select for patient arguments introduced by *iʔ*, which means that the semantics given in (57) cannot be extended to all occurrences of *-əm*. This issue could potentially be solved by positing a homophonous suffix *-əm* for syntactically transitive predicates, though I remain agnostic on this issue here.

<sup>36</sup>The root in Figure 5.6, *kʷulʷ* must be represented as transitive, given (57). An analysis of some Salish roots as being transitive follows claims made by Gerdts (2006) and Gerdts and Hukari (2012), but contravenes Thompson and Thompson (1992) and others who claim that roots are fundamentally intransitive, and Davis and Matthewson (2009), and references therein, for arguments that all Salish verb roots are unaccusative (Davis, 1997). There are several possible modifications which could be made to (57) in order to make it consistent with the intransitive or unaccusative root hypotheses, but I abstract away from these issues here.

<sup>37</sup>Readings resembling distributive readings are available for oblique quasi-objects in cases in-

$k^w\acute{u}l\acute{o}m\ t\ pwm\acute{i}n$  ‘make a drum’ is shown as figure 5.6:

**Figure 5.6:** Semantic Incorporation of an Oblique Quasi-Object



Associating semantic incorporation with the intransitivizer (Van Geenhoven, 1998) is preferred over analyzing  $t$  as having RESTRICT semantics (Chung and Ladusaw, 2004) for the following reason: If  $t$  marked a RESTRICT operation, then the distribution of quasi-objects would not be expected to be limited to contexts involving formally intransitive predicates. In other words, the distribution of oblique quasi-objects/themes is dependent on the selectional restrictions of specific morphemes (cf. section 4.4.2). Okanagan  $t$  is thus different than the Squamish determiner  $kwi$ , which Gillon (2006, 10) analyzes as composing with a predicate via RESTRICT (Chung and Ladusaw, 2004).

Analyzing  $t$  as semantically vacuous has the added benefit of potentially allowing a unified analysis of other occurrences of  $t$ , specifically as a marker of attributive modification (cf. section 6.2), where it is also plausibly semantically vacuous. The Lillooet non-assertion of existence determiner  $k^wu$  has a similar distribution to Okanagan  $t$ . Werle (2000) unifies the attributive and non-referential DP object uses of  $k^wu$  by analyzing DPs headed by  $k^wu$  as of type  $\langle\langle e, t \rangle, \langle e, t \rangle\rangle$ , i.e. they are predicate modifiers (Heim and Kratzer, 1998). Lillooet differs from Okanagan, however, by the fact that  $k^wu$  DPs can function as core objects of transi-

---

volving a quantified subject DP. These cases can be reduced to distributivity over events associated with noun-incorporated predicates.

tive predicates in polarity or intensional contexts (cf. section 4.4.8), which means that the non-attributive distribution of  $k^wu$  DPs cannot be captured simply by writing incorporation semantics into the meaning of intransitivizers, as is the case for Okanagan.

I suggest that there may be a split in Salish languages, whereby those languages which introduce quasi-objects with a determiner (e.g. Lillooet and Squamish) utilize semantically contentful determiners and predicate modification/RESTRICT semantics in such contexts (Werle, 2000; Gillon, 2006), while languages which introduce quasi-objects with an oblique marker (e.g. Okanagan) utilize instead a semantically vacuous oblique-marker and semantic incorporation. This view accurately reflects the narrower distribution of Okanagan  $t$  in comparison with Lillooet  $k^wu$ .<sup>38</sup> Finally, by not adopting Werle (2000) for Okanagan  $t$ , we are not forced to analyze NPs as attributive modifiers of demonstratives in DP-DP structures and clefts (cf. chapters 7 and 8).

### 5.3.3 Explaining the Implicature Carried by $i?$

The Okanagan determiner  $i?$  carries the maximality implicature given as (58b), and in argument contexts, where  $i?$  contrasts with  $t$ , it gives rise to the conversational implicature given as (58c):<sup>39</sup>

(58) a.  $\llbracket i? \rrbracket = \lambda P \lambda w [f(\lambda x [P(x)(w) \wedge C(x)(w)])]$

b. Maximality implicature:

$$f = \text{MAX}$$

c. Conversational implicature:

Because the default for  $i?$  is  $f = \text{MAX}$ , a speaker's use of an intransitive construction with a quasi-object introduced by  $t$  carries a conversational implicature of non-maximality.

<sup>38</sup>Maintaining an analysis of  $t$  as semantically vacuous furthermore explains its use as case marking a passive agent (cf. section 4.4.3), and it is interesting to note that in Lillooet, an oblique marker  $?ə$  also marks a passive agent, rather than  $k^wu$ , which supports analyzing  $k^wu$  as encoding RESTRICT and  $?ə$  as semantically vacuous.

<sup>39</sup>The determiner  $i?$  contributes a different conversational implicature in equative contexts, where equatives stand in opposition to direct predications. See section 7.4.1.



The implicature in (58b) arises from an implicit assumption which speakers have that a context set  $C$  is non-trivial, and that there is some choice function  $f$  which picks out some salient individual. In other words, since the pragmatic function of a context set  $C$  is to allow for contextual restriction of a domain of individuals  $P$ , the implicit assumption is that the contextual domain is restricted to the maximum extent possible. Likewise, since choice functions pick out individuals, the implicit assumption is that there is some individual within the contextually restricted domain which the choice function picks out. In cases where  $C$  is equivalent to the universe and  $P$  is a subset of  $C$ ,  $C$  will be trivial, and so the implicit assumption of non-triviality is overruled.

In addition to the assumption of non-triviality, there is an assumption which accompanies the use of an  $i?$  DP such that the contextual domain is restricted to the maximum extent possible: i.e. the assumption is that no contextually non-salient individuals are included in the intersection of  $P$  and  $C$ . The default  $f = \text{MAX}$  means that an  $i?$  DP will, by implicature, reference *only* individuals in the intersection of  $P$  and  $C$ , and *all* individuals in the intersection of  $P$  and  $C$ . This in turn means that the size and set membership of the intersection of  $P$  and  $C$  will preferentially remain constant across uses of any particular  $i?$  DP in a given discourse context. If  $f \neq \text{MAX}$ , then the assumption that no contextually non-salient individuals are included in the intersection of  $P$  and  $C$  is overruled, as depicted in Figure 5.3. The size of the intersection is then decreased to include just that singular or plural individual selected by  $f$ , and at the next reference of this individual using an  $i?$  DP, the default  $f = \text{MAX}$  is restored. The default of  $f = \text{MAX}$  accounts for the uses of  $i?$  as a definite, however unlike in English, there is no presupposition involved since in contexts where more than one salient individual is present in the context set (e.g. Figure 5.3),  $f = \text{MAX}$  cannot hold.

Crucially, the  $i?$  determiner is sensitive to the context, as indicated by its semantic denotation (58a, cf. 56b), whereas the oblique marker  $t$  is semantically vacuous, and so cannot be sensitive to the context. Since the use of an oblique marked quasi-object carries with it a conversational implicature of non-maximality (58c), the default expectation is that in cases for which a context set  $C$  will be trivial, the speaker will use an oblique marked quasi-object. In Gricean terms, this is a Quantity implicature, following the sub-maxim *make your contribution as infor-*

*mative as is required.* Non-maximal uses of *i?* in contexts for which *C* is trivial is less informative, in other words.

The tight correlation in Okanagan between aspect, predicate transitivity, and the selectional restrictions of a predicate mean that if it were the case that *i?* allowed only maximal readings, that formally transitive predicates would be categorically incompatible with non-maximal readings of nominal expressions. Allowing cancellation of the implicature in (58b) circumvents this problem, and the range of predicates which permit non-maximal readings of nominal expressions is thereby increased. From the Salish perspective, languages with single-determiner systems like Okanagan offer an interesting point of comparison, since allowing cancellation of the maximality implicature carried by *i?* essentially takes the place of there being a secondary non-referential determiner, present in most other Salish languages.

## 5.4 Summary

In this chapter, I have investigated the semantic distribution of the determiner *i?* and the oblique marker *t* in Okanagan, and concluded that *i?* is best analyzed as a non-deictic pragmatically conditioned determiner (Gillon, 2006; Déchaine and Tremblay, 2011), and that *t* is a semantically vacuous morphological reflex of semantic incorporation (Van Geenhoven, 1998).

Okanagan *i?* shares some similarities with deictic determiners in Squamish (Gillon, 2006) and assertion-of-existence determiners in Lillooet, but allows for a wider range of readings, including narrow-scope readings usually associated with non-deictic and non-assertion-of-existence determiners (Matthewson, 1998). The determiner *i?* does not presuppose or assert uniqueness or maximality or specificity, and does not require a widest-scope interpretation. I have shown that *i?* is contextually sensitive and permits co-referential readings, while *t* is not contextually sensitive, and does not allow co-reference. I have claimed that *i?* carries an implicature of uniqueness/maximality via the fact that it can reference a contextually restricted domain, whereas *t* cannot. *i?* also permits intensional readings. The semantics of *i?* are given as (59a), the maximality implicature carried by *i?* is given as (59b), and the conversational implicature associated with oblique-marked quasi-objects is given as (59c).

(59) a.  $\llbracket i? \rrbracket = \lambda P \lambda w [f(\lambda x [P(x)(w) \wedge C(x)(w)])]$

b. Maximality implicature:

$f = \text{MAX}$

c. Conversational implicature:

Because the default for  $i?$  is  $f = \text{MAX}$ , a speaker's use of an intransitive construction with a quasi-object introduced by  $t$  carries a conversational implicature of non-maximality.

The analysis in (59) is important for my analysis of DP-DP structures and clefts, both of which I claim are equative. These are discussed in chapters 7 and 8, respectively. Before investigating equatives, I discuss nominal modification, including relative clauses, which are important for an understanding of clefts.

## Chapter 6

# The Syntax of Nominal Modification

This chapter discusses two types of nominal modification for Okanagan: attributive modification, and relative clauses. Nominal modification has been examined in other Salish languages: Straits Salish (Montler, 1993), Lillooet (Davis et al., 1997; Davis, 2002, 2004, 2010a, 2011), Shuswap (Davis et al., 1997), and Thompson (Koch, 2004, 2006). Other than Lyon (2010a), there has been no systematic investigations of nominal modification in Okanagan to date, although N. Mattina (1994) presents some relevant data on attributive modification, and Hébert (1982b, 45,122) presents several examples of relative clauses.

I show that attributive modifiers must be non-verbal predicates (i.e. adjectival or nominal predicates) which modify a head noun, while relative clauses may be formed from both verbal and non-verbal modifiers. In this respect, Okanagan patterns similarly to the Northern Interior Salish languages Lillooet and Thompson. The distribution of *i?* and *t* in nominal modification contexts in Okanagan is indicative of relative clause versus attributive modification, and the presence versus absence of clausal structure associated with the modifier.

The structures motivated by these data are important for an understanding of the arguments employed in chapter 8, specifically: (i) the syntax of cleft residue clauses and the relation between relative clauses and cleft residues; and (ii) the distinct behavior of oblique *t* in cleft environments, which must be kept separate from

its use as an attributive marker or case-marker introducing an oblique argument.

After presenting the problem of distinguishing different types of nominal modification in terms of the morphosyntactic distribution of *iʔ* and *t* (section 6.1.1), I go on to distinguish nominal modification from clausal subordination (section 6.1.2). I then discuss attributive modification in some detail (section 6.2), before turning to relative clauses (section 6.3).

## 6.1 Preliminaries

### 6.1.1 Morphological Patterns of Nominal Modification

Consider the following data:

- (1) a. wík-ən                      iʔ      kʷəckʷáct   t      ylmíxʷəm.  
           see-[DIR]-1SG.ERG   DET   strong        ATTR   chief  
           I saw the strong chief.
- b. wík-ən                      iʔ      kʷəckʷáct   iʔ      ylmíxʷəm.  
           see-[DIR]-1SG.ERG   DET   strong        DET   chief  
           I saw the strong chief.

The data pair in (1) seem to be semantically equivalent, differing only in whether the oblique marker *t* or the *iʔ* determiner introduces the head noun.<sup>1</sup> The question I pose is whether or not the morphosyntactic difference illustrated here also indicates a deeper syntactic distinction. I argue that it does, and will present evidence that (1a) involves attributive modification (i.e. not-necessarily-intersective modification) on analogy with similar constructions in the Northern Interior, while (1b) involves relative clause modification.<sup>2</sup>

<sup>1</sup>I gloss the oblique marker *t* as ATTR ‘attributive’ in (1a), rather than simply OBL ‘oblique’ because its function here is to mark attributive modification, and the use of *t* in this environment should be kept separate from its use in introducing quasi-objects. The question of whether these two separate uses of *t* correspond to two distinct but homophonous morphemes, or whether these two separate uses may receive a unified analysis, has yet to be determined.

<sup>2</sup>There are six logically possible surface patterns involving determiner *iʔ* and oblique marker *t* in their capacity of introducing heads and modifiers in nominal modification structures, with an additional dimension of variation being whether the head precedes the modifier or vice versa. A table showing the surface patterns of *iʔ* and *t* in modification contexts is given in section 6.5.

There are other modification patterns worth examining as well: an alternation similar to that shown for (1) is not allowed for quasi-objects of intransitive predicates (2). This is surprising given that in neither transitive (1b) nor intransitive (2b) is there a direct selectional relation between the transitivity of the main predicate and the determiner which introduces the head noun of its complement.

- (2) a. kn            wík-əm   t      k'wəck'wáct   t      ylmíx<sup>w</sup>əm.  
          1SG.ABS see-MID OBL strong       ATTR chief  
          I saw a strong chief.
- b. \*kn            wík-əm   t      k'wəck'wáct   iʔ      ylmíx<sup>w</sup>əm.  
          1SG.ABS see-MID OBL strong       DET chief  
          I saw a strong chief.

Additionally, data similar to (3a, cf. 1a) show that a nominal head may precede *or* follow the modifier, showing that pre-nominal and post-nominal modification are both possibilities. In (3b), an adjectival modifier follows a head noun.

- (3) a. wík-ən                      iʔ      k'wəck'wáct   iʔ      tkłmilx<sup>w</sup>.  
          see-[DIR]-1SG.ERG DET strong       DET woman  
          I saw the strong woman.
- b. wík-ən                      iʔ      tkłmilx<sup>w</sup>   iʔ      k'wəck'wáct.  
          see-[DIR]-1SG.ERG DET woman       DET strong  
          I saw the woman that is strong.

Before discussing data like these in detail (relative clauses in particular), it is important to distinguish nominal modification from clausal subordination, since superficially at least, both consist of predicative material introduced by functional particles. For Okanagan, I show that clausal subordination utilizes a different set of particles than nominal modification, and that on this basis alone, the two classes may be distinguished.

### 6.1.2 Distinguishing Clausal Subordination from Nominal Modification

Subordination in Okanagan takes a variety of forms, only some of which I discuss here. My goal is simply to show that the determiner *i?* and oblique marker *t* never play the role of complementizer. This fact contrasts with neighboring Thompson, where the present *e* and irrealis *k* determiners, as well as the oblique marker *t*, may all occur in complementizer positions (Kroeber, 1999, 207-211).

Complementizers in Okanagan are largely optional, unlike in Northern Interior Salish languages (Kroeber, 1999). One sometimes finds *t* or *ta?*, which A. Mattina (1973, 114) describes as being ‘sequential complement particles’. (4) was volunteered without a complementizer, but was judged good with a complementizer.

- (4)    n-łípt-əm-ən                      (t)        i-ks-k<sup>w</sup>an-ím  
          forget-[MIN-DIR]-1SG.ERG (COMP) 1SG.POSS-FUT-take-MID  
          in-q<sup>w</sup>ácqn.  
          1SG.POSS-hat  
          I forgot to get my hat.

Factive complements also allow but do not require a *t* complementizer, as shown in (5a) and (5b). An *i?* determiner is not allowed in this position.<sup>3</sup>

- (5) a.    ʃast    nyʔíp    k<sup>w</sup>u        (t)/\*i?        k[s]-swit-míst        i?  
          good always 1PL.ABS (COMP)/\*DET FUT-try-INTR.REFLEX (DET)  
          I        n-q<sup>w</sup>əlq<sup>w</sup>íl-tən-tət.  
          LOC n-speak-INSTR-1PL.POSS  
          It is good that we’re trying to save our language.
- b.    ʃast    k<sup>w</sup>u        (t)/\*i?        c-paʔ-paʔs-ílʃ        i?    kʲl  
          good 1PL.ABS (COMP)/\*DET CUST-RED-think-DEV DET LOC  
          ks-c-x<sup>w</sup>úy-tət.  
          FUT-CUST-go-1PL.POSS  
          It is smart to think about the future.

<sup>3</sup>A. Mattina (1973, 114) states that when the complementizer intervenes between a proclitic and its host predicate, the proclitic subject apparently has a focused reading. However, I have not detected any obvious focus-sensitive interpretation.

I assume a null complementizer for cases similar to (4-5) where a *t* or *ta?* complementizer is possible, but not overt. This null complementizer cannot automatically be assumed to be a null version of *t* or *ta?*, however. This is because complements of propositional attitude predicates disallow the complementizer *t* (6), yet also presumably involve clausal subordination.

- (6) a. kn            n-stíls-ə́m    \*t/\*t/\*i?            ʃmínk-ə́m t  
           1 SG.ABS n-think-MID \*COMP/\*OBL/\*DET want-MID OBL  
           kí-cítx<sup>w</sup>-s.  
           U.POSS-house-3 SG.POSS  
           I thought he wanted a house
- b. kn            n-stíls    \*t/\*t/\*i?            ks-məq<sup>w</sup>-q<sup>w</sup>-míxaʔx.  
           1 SG.ABS n-think \*COMP/\*OBL/\*DET FUT-snow-FRED-INCEPT  
           I think it's going to snow.

The data in (6) also illustrate how the oblique particle *t* does not function as a complementizer in Upper Nicola Okanagan propositional attitude complements, unlike in Thompson or other dialects of Okanagan (Kroeber, 1999, 233).

Causal (7) and conditional clauses (8) are optionally introduced by the locative particle *tl* 'from' (Kroeber, 1999, 236). Unlike with prepositional phrases (see chapter 4), a determiner may not precede the locative marker in subordination contexts (7).<sup>4,5</sup>

- (7) kn            tək<sup>w</sup>-ncút            (\*i?)    tl    i-s-ʔáyǎ<sup>w</sup>t.  
           1 SG.ABS lay.down-REFLEX (\*DET) LOC 1 SG.POSS-NOM-tired  
           I laid down because I was tired.
- (8) cəm    ʃawt    i?    s-c-war'            (tl)    lut    k<sup>w</sup>            ʔa?  
           EPIS go.out DET NOM-CUST-fire (LOC) NEG 2 SG.ABS COMP  
           w'úsəm.  
           build.the.fire  
           The fire will go out if you don't put on more wood.

<sup>4</sup>Thompson introduces causal complements with oblique *t* and determiner *e* (Kroeber 1999, 210).

<sup>5</sup>It is unclear whether *tl* is syntactically a complementizer in these cases, or a preposition.



Locative *tl* also functions as a factive complementizer (9).<sup>6</sup>

- (9) a. *ǰast tl ǰ-x<sup>w</sup>uy-st-s iʔ tum-s.*  
 good LOC return-go-CAUS-3SG.ERG DET mother-3SG.POSS  
 It's good that she took her mother home.
- b. *kn q<sup>w</sup>əl-c[n]-ncút tl n-ǰípt-əm-ən*  
 1SG.ABS speak-mouth-REFLEX LOC n-forget-[MIN-DIR]-1SG.ERG  
 in-laklí.  
 1SG.POSS-key  
 I was angry at myself because I forgot my keys.

In addition to *tl* (7-8), Upper Nicola speakers also use a form *k<sup>w</sup>aʔ* as a causal complementizer (cf Kroeber (1999, 354) and A. Mattina (1985, sz.421)).<sup>7</sup>

- (10) a. *kn tək<sup>w</sup>-ncút k<sup>w</sup>aʔ kn s-ʔayǰ<sup>w</sup>t.*  
 1SG.ABS lay.down-REFLEX COMP 1SG.ABS NOM-tired  
 I laid down because I was tired.
- b. *tək<sup>w</sup>-ncút k<sup>w</sup>aʔ ʔit-s yaʕyáʕt iʔ lasúp.*  
 lay.down-REFLEX COMP eat-[DIR]-3SG.ERG all DET soup  
 She laid down because she ate all the soup.

The *ǰ* complementizer is required in Upper Nicola Okanagan for interrogative complements (11).

- (11) a. *k<sup>w</sup>u síw-ənt ǰ i-ks-x<sup>w</sup>uy.*  
 1SG.ABS ask-DIR COMP 1SG.POSS-FUT-go  
 He asked me if I was going to go.

<sup>6</sup>In Lillooet, factive complements are marked by the determiner *ti...a*. (Henry Davis, p.c.)

<sup>7</sup>*k<sup>w</sup>aʔ* and *tl* seem interchangeable in some sentences, but not in others. It is unclear to me how the two differ semantically.

- b. síw-en                      i[n]-s-n-ylmíx<sup>w</sup>əm                      †  
 ask-[DIR]-1SG.ERG 1SG.POSS-NOM-n-chief COMP  
 i-k[s]-səx<sup>w</sup>-məʔməyáʔ-m.  
 1SG.POSS-U.POSS-OCC-teach-MID  
 I asked my boss if I could be the teacher.

The future marker *mi* also appears to function as a complementizer (12), often in conjunction with the adverbial *sic* ‘new’ (12b), yielding a meaning equivalent to ‘before’ in English:<sup>8</sup>

- (12) a. kn              ks-límt-aʔx              mi      Sarah      məq-ínk.  
 1SG.ABS FUT-glad-INCEPT FUT Sarah full-stomach  
 I will be glad when Sarah is full.
- b. lut      nyʔip!      ʔlap      ʔaʔ      c-ʔʔap-ám              mi      sic  
 NEG always stop COMP CUST-shoot-MID FUT new  
 x<sup>w</sup>uy-st-x<sup>w</sup>!  
 go-CAUS-2SG.ERG  
 Never! The shooting has got to stop before you can take her!

Another complementizer that should be mentioned is *kiʔ*, which is used only in adjunct-focused clefts and WH-questions (Baptiste, 2001, 16-17). Neither *iʔ* nor *t* may substitute for *kiʔ* in these environments.<sup>9</sup>

- (13) a. tl              kʔʔalq<sup>w</sup>              kiʔ/\*iʔ/\*t              kn              s-c-x<sup>w</sup>uy-x.  
 LOC across.the.line COMP/\*DET/\*OBL 1SG.ABS NOM-CISL-go-INTR  
 It's from the U.S.A. that I came.
- b. kaʔkin      kiʔ/\*iʔ/\*t              wík-ənt-x<sup>w</sup>              iʔ      skəkʔákaʔʔ  
 where COMP/\*DET/\*OBL see-DIR-2SG.ERG DET birds  
 Where are the birds you saw?

<sup>8</sup>In chapter 7, I present the hypothesis that future *mi* may be a tense head in some instances, but may raise to C. *mi* also introduces residue clauses in clefts.

<sup>9</sup>Clefts involving *kiʔ* are discussed in detail in chapter 8, section 8.9. For the moment, it is important to note that *kiʔ*, unlike *iʔ* or *t*, cannot introduce simple NPs, which disqualifies it from being a determiner.

In sum, the determiner *i?* and oblique marker *t* are notably absent from the inventory of particles introducing subordinate clauses in Okanagan, though both are used in nominal modification contexts.<sup>10</sup> Because the complementizers discussed in this section cannot introduce NPs in argument position, we can use the complementary distribution of clausal subordinators and NP-introducing articles as a diagnostic to distinguish relative clauses and attributive modification from other structures involving clausal subordination in the Upper Nicola dialect (Table 6.1).

**Table 6.1:** NP-introducing Articles versus Clausal Subordinators

|                        | Introduces<br>NP in argu-<br>ment position | Clausal<br>Subordinator |
|------------------------|--|-------------------------|
| <i>i?</i>              | ✓  | *                       |
| <i>t</i>               | ✓  | *                       |
| <i>ɬ(a?)</i>           | *  | ✓                       |
| <i>tl</i>              | *  | ✓                       |
| <i>k<sup>w</sup>a?</i> | *  | ✓                       |
| <i>mi</i>              | *  | ✓                       |
| <i>ki?</i>             | *  | ✓                       |

I now move onto a discussion of attributive modification.

## 6.2 Attributive Modification

Attributive modification in Okanagan is used in two related syntactic constructions. In predicate position, attributively modified nouns form *complex nominal predicates* (CNP) (Davis et al., 1997) (see relevant discussion in section 4.2), and in argument position, a CNP may form a constituent with an introductory determiner *i?* or oblique marker *t*, thereby forming what I refer to as *complex DPs* and *complex obliques*, respectively.

<sup>10</sup>Montler (1993, 253) also notes that clausal attributives (a.k.a. relative clauses) in Saanich are clearly distinguishable from other forms of clausal subordination, however there is a different problem in Saanich: Since a determiner does not introduce the modifying clause, it becomes impossible to tell whether the modifying clause is in fact a non-subordinated, separate sentence.

Attributive modifiers cannot project tense/aspectual structure, and there are semantic restrictions such that individual-level predicates (i.e. permanent properties of individuals (Carlson, 1977)), and predicates which are derived by the customary/stative prefix *ac-* can be modifiers, whereas stage-level predicates (i.e. properties true of an individual for a temporal stage (Carlson, 1977)), eventive unaccusatives, unergatives, and transitive predicates may not.<sup>11,12</sup> This is one distinguishing factor between attributive and relative clause modification.

Before beginning, it is important to make clear that the marker *t* which occurs in contexts involving attributive modification is an element distinct from the marker *t* which introduces oblique arguments of formal intransitives, as discussed in chapter 4. The attributive marker *t* does not reflect the syntactic or semantic restrictions of any selecting predicate, and never co-occurs adjacent to *i?*. To reflect this distinction, I gloss attributive *t* as ‘ATTR’ rather than ‘OBL’. Like oblique *t*, however, it seems clear that attributive *t* is semantically vacuous.<sup>13</sup>

### 6.2.1 Review: Complex Nominal Predicates and Complex DPs

As mentioned in section 4.2, attributive *t* links an adjectival (or nominal) modifier to a head nominal in complex nominal predicate (CNP) structures (14) and attributively-modified, complex DPs (15) (Davis et al., 1997; Lyon, 2010a). Structures analogous to (14-17) are also found in Shuswap and Lillooet (Davis et al., 1997), as well as in Thompson (Koch, 2006).<sup>14</sup> The oblique marker is obligatory

<sup>11</sup>As mentioned in a footnote in chapter 4, I use the terms ‘unaccusative’ and ‘unergative’ descriptively to distinguish intransitive predicates which take experiencer DP arguments from those which take agentive DP arguments, without making any deeper syntactic claims concerning unaccusativity.

<sup>12</sup>It may be the case that customary/stative *ac-* is an event-variable saturator, which correlates syntactically with the absence of tense/aspectual structure for *ac-* prefixed states; however I do not include the details of such an analysis here (cf Koch (2006)).

<sup>13</sup>See section 5.3.2 for analysis of quasi-object introducing *t* as semantically vacuous, and discussion of how all uses of *t* may be analyzed as semantically vacuous. It is tempting to analyze *t* as always indicative of predicate modification, however *t* also intervenes between demonstratives and nominals in equative contexts (cf. chapter 8), and I argue that demonstratives are not predicative.

<sup>14</sup>In Thompson, the attributive marker *t* may co-occur with an irrealis determiner *k* in attributive modification contexts (Koch, 2006). Lillooet contrasts with Shuswap, Thompson, and Okanagan by having no oblique marker in this environment, but only an optional, irrealis determiner *ku*. Assuming that the Thompson pattern reflects an earlier stage of Interior Salish, this implies both that oblique *t* has been lost in this environment in Lillooet (Henry Davis, p.c.), and that the *k*-determiner has been lost from this particular environment in Shuswap. Okanagan, perhaps taking a similar, localized

in both CNPs and complex DPs:<sup>15</sup>

- (14) a. [síl<sup>w</sup>aʔ t sqəltmíx<sup>w</sup> <sub>CNP</sub>] [iʔ ylmíx<sup>w</sup>ə́m. <sub>DP</sub>]  
           big       ATTR man                   DET chief  
           The chief is a big man.
- b. \*[síl<sup>w</sup>aʔ sqəltmíx<sup>w</sup> <sub>CNP</sub>] [iʔ ylmíx<sup>w</sup>ə́m. <sub>DP</sub>]  
           big       man                   DET chief  
           The chief is a big man.
- (15) a. [wík-ən <sub>VP</sub>] [iʔ síl<sup>w</sup>aʔ t ylmíx<sup>w</sup>ə́m. <sub>DP</sub>]  
           see-[DIR]-1SG.ERG DET big       ATTR chief  
           I saw the big chief.
- b. \*[wík-ən <sub>VP</sub>] [iʔ síl<sup>w</sup>aʔ ylmíx<sup>w</sup>ə́m. <sub>DP</sub>]  
           see-[DIR]-1SG.ERG DET big       chief  
           I saw the big chief.

The attributive modifier must precede the nominal head (16-17):

- (16) a. [ǰast t tkłmilx<sup>w</sup> <sub>CNP</sub>] iʔ ylmíx<sup>w</sup>ə́m-tət.  
           good ATTR woman                   DET chief-1PL.POSS  
           Our chief is a good woman.
- b. \*[tkłmilx<sup>w</sup> t ǰast <sub>CNP</sub>] iʔ ylmíx<sup>w</sup>ə́m-tət.  
           woman       ATTR good       DET chief-1PL.POSS  
           Our chief is a good woman.
- (17) a. [cəcámaʔt t skəkʔákaʔ <sub>CNP</sub>] i-s-c-wík.  
           small(PL) ATTR birds                   1SG.POSS-NOM-CUST-see  
           The ones I saw were small birds.
- b. \*[skəkʔákaʔ t cəcámaʔt <sub>CNP</sub>] i-s-c-wík.  
           birds       ATTR small(PL)       1SG.POSS-NOM-CUST-see  
           The ones I saw were small birds.

reduction to its logical conclusion, now has no k-type determiner anywhere in its grammar.

<sup>15</sup>According to (N. Mattina 1994, 5), some dialects of Okanagan allow attributive *t* (or the determiner) to be absent in these contexts. The Upper Nicola dialect does not allow this.

Modifiers within CNPs and complex DPs may also be nominal, rather than adjectival:

- (18) a. [[səx<sup>w</sup>-maʔmáyaʔ-m <sub>NP</sub>] t pəptwínax<sup>w</sup> <sub>CNP</sub>].  
           OCC-teach-MID                   ATTR old.woman  
           The teacher is an old lady.  
           Literally: She is a teacher old lady.
- b. wík-ən                   iʔ   [[tkłmilx<sup>w</sup> <sub>NP</sub>] t q<sup>w</sup>ʔay-lqs <sub>CNP</sub>].  
           see-[DIR]-1SG.ERG DET woman           ATTR black-robe  
           I saw a woman minister.

Also recall from chapter 4 that the determiner *iʔ* predictably introduces a core argument of a transitive main predicate. As such, complex *iʔ* DPs cannot serve as quasi-objects of formally intransitive predicates (19a), or as theme arguments of ditransitives (20a). Speakers will instead either correct these to complex oblique forms (19b,20b), or change the transitivity of the main predicate to agree with the *iʔ* determiner (19c,20c).

- (19) a. \*kn           wík-əm iʔ q<sup>w</sup>ʔay t swarákxn.  
           1SG.ABS see-MID DET blue   ATTR frog.  
           I saw a blue frog.
- b. kn           wík-əm t q<sup>w</sup>ʔay t swarákxn.  
           1SG.ABS see-MID OBL blue   ATTR frog.  
           I saw a blue frog.
- c. wík-ən                   iʔ q<sup>w</sup>ʔay t swarákxn.  
           see-[DIR]-1SG.ERG DET blue   ATTR frog.  
           I saw a blue frog.

- (20) a. \*x<sup>w</sup>íç'-xt-əm-ən                      iʔ    çw'-cawt    t            lasmíst.  
           give-BEN-2SG.ACC-1SG.ERG    DET    RED-clean    ATTR    shirt  
           I gave you a clean shirt.
- b. x<sup>w</sup>íç'-xt-əm-ən                      t            çw'-cawt    t            lasmíst.  
           give-BEN-2SG.ACC-1SG.ERG    OBL    RED-clean    ATTR    shirt  
           I gave you a clean shirt.
- c. x<sup>w</sup>íç'-t-əm-ən                      iʔ    çw'-cawt    t            lasmíst.  
           give-APPL-2SG.ACC-1SG.ERG    OBL    RED-clean    ATTR    shirt  
           I gave you a clean shirt.

In other words, the initial particle of an attributively modified argument expression reflects the selectional restrictions of a higher predicate.

### 6.2.2 Aspectual Restrictions on Attributive Modification

Demirdache and Matthewson (1995) and Davis et al. (1997) show that modifiers in CNPs must be individual-level predicates in Lillooet and Shuswap. Okanagan CNPs (21-22) pattern similarly to these Northern Interior Salish languages; however, complex DPs are less stringent, since they do allow stage-level, unaccusative predicates as modifiers (23) (cf Davis (2011) for a similar finding in Lillooet):

- (21) a. tət-tált            t            ylmíx<sup>w</sup>əm.  
           RED-straight    ATTR    chief  
           He's a straightforward chief.
- b. iʔ    tət-tált            t            ylmíx<sup>w</sup>əm    k-mýlt-əm-s                      iʔ  
           DET    RED-straight    ATTR    chief            k-visit-MIN-[DIR]-3SG.ERG    DET  
           pəptwínax<sup>w</sup>.  
           old.woman  
           The straightforward chief visited the old woman.
- (22) a. íq<sup>w</sup>əlq<sup>w</sup>    t            xíxwtəm    Susy.  
           tall            ATTR    little.girl    Susy  
           Suzy is a tall girl.

b. iʔ    tíq<sup>w</sup>əlq<sup>w</sup>    t    sqəłtmíx<sup>w</sup>    ʔacám.  
 DET tall    ATTR man    tie-MID  
 The tall man is tying (things).

(23) a. \*q<sup>w</sup>ím-əm    t    sqəłtmíx<sup>w</sup>.  
 frightened-FRED ATTR man  
 He is a frightened man.

b. iʔ    q<sup>w</sup>ím-əm    t    sqəłtmíx<sup>w</sup>    k-mýlt-əm-s  
 DET frightened-FRED ATTR man    k-visit-MIN-[DIR]-3SG.ERG  
 iʔ    pəptwínax<sup>w</sup>.  
 DET old.woman  
 The frightened man visited the old woman.

Comparing the ungrammatical (a) cases with grammatical (b) cases below, we see that by prefixing customary/stative *ac-* to a stage-level modifier, the sentence becomes grammatical.<sup>16,17</sup> (26c) confirms that stage-level modifiers without *ac-* are acceptable as modifiers within a complex DP structure (cf 23b).

(24) a. \*talíʔ    paʔ-paʔs-ílx    t    sqəłtmíx<sup>w</sup>.  
 very RED-feel.bad-DEV ATTR man  
 He's a worried man.

b. talíʔ    c-paʔ-paʔs-ílx    t    sqəłtmíx<sup>w</sup>.  
 very CUST-RED-feel.bad-DEV ATTR man  
 He's a worried man.

<sup>16</sup>See A. Mattina (1993a) and N. Mattina (1996b) for discussion of the functions of *(a)c-* as a 'customary/habitual' marker, and as a 'stative' marker. The 'customary/habitual' interpretation of *(a)c-*prefixed predicates is possible with unergatives (cf. 32 below) and other eventive predicates, but not a stative interpretation, which is dependent on the predicate being a non-eventive unaccusative. It is unclear whether the stative and customary/habitual uses of *(a)c-* follow from these uses corresponding to two separate yet homophonous morphemes, or whether these two uses might be unified semantically.

<sup>17</sup>The stage versus individual-level status of the predicate modifiers in this section is confirmed by their ability/inability to occur with 'short-time-span' versus 'longer-time-span' adverbials, respectively. For reasons of space, I do not include these data here.



- (25) a. \*n-kw-p-ils (ixí?) t sqəltmíx<sup>w</sup>.  
 n-gone-MUT-thoughts (DEM) ATTR man  
 That's a lonely man.
- b. c-n-kw-p-ils (ixí?) t sqəltmíx<sup>w</sup>.  
 CUST-n-gone-MUT-thoughts (DEM) ATTR man  
 That's a lonely man.
- (26) a. \*kn ʕimt t sqəltmíx<sup>w</sup>  
 1SG.ABS angry ATTR man  
 I'm an angry man.
- b. talí? kn c-ʕimt t sqəltmíx<sup>w</sup>.  
 very 1SG.ABS CUST-angry ATTR man  
 I'm an angry man.
- c. níxl-m-ən i? ʕimt t sqəltmíx<sup>w</sup>  
 hear-MIN-[DIR]-1SG.ERG DET angry ATTR man  
 I heard the angry man.

Adding *ac-* to an individual-level predicate is ungrammatical (27-28):

- (27) a. caǰ t lasmíst i? x<sup>w</sup>ic'-xt-x<sup>w</sup>.  
 red ATTR shirt DET give-BEN-2SG.ERG  
 What you gave him was a red shirt.
- b. ʔíq<sup>w</sup>əlq<sup>w</sup> t tkłmilx<sup>w</sup> i? s-c-wik-s.  
 tall ATTR woman DET NOM-CUST-see-3SG.POSS  
 He saw a tall woman.
- c. n-ǰəl-ǰl-úł t sqəltmíx<sup>w</sup>.  
 n-scared-RED-very ATTR man  
 That's a (characteristically) scared man.
- (28) a. \*ac-caǰ t lasmíst i? x<sup>w</sup>ic'-xt-x<sup>w</sup>.  
 CUST-red ATTR shirt DET give-BEN-2SG.ERG  
 What you gave him was a red shirt.

- b. \*ac-tíq<sup>w</sup>əlq<sup>w</sup> t tkłmilx<sup>w</sup> iʔ s-c-wik-s.  
 CUST-tall ATTR woman DET NOM-CUST-see-3SG.POSS  
 He saw a tall woman.
- c. \*ac-n-ǰəl-ǰl-úł t sqəłtmíx<sup>w</sup>.  
 CUST-n-scared-RED-very ATTR man  
 That's a (characteristically) scared man.

In sum, adding customary/stative *ac-* to a stage-level unaccusative predicate seems to allow that predicate to function as an individual-level predicate, which in turn allows it to modify a nominal predicate within a CNP structure. If we analyze *ac-* as converting a stage-level predicate to an individual-level predicate, or something semantically similar (cf. Koch (2006) for Thompson), then Davis et al's (1997) analysis of CNP modifiers in Lillooet and Shuswap may for all intents and purposes be extended to Okanagan.<sup>18</sup>

Unergatives and eventive unaccusatives are disallowed as attributive modifiers. Koch (2006, 149) discusses a similar finding for Thompson. In these cases, speakers will usually correct to a pattern where *iʔ* introduces both the head and the modifier. Variable head-modifier ordering is allowed here, which I take to be evidence that these are relative clause modifications. This is justified in section 6.3.

- (29) a. \*kn-xít-ən iʔ tk<sup>w</sup>-ak<sup>w</sup> t tətwtí.  
 help-BEN-1SG.ERG DET fell-FRED ATTR boy  
 I helped the boy who fell down.
- b. kn-xít-ən iʔ tk<sup>w</sup>-ak<sup>w</sup> iʔ tətwtí.  
 help-BEN-1SG.ERG DET fell-FRED DET boy  
 I helped the boy who fell down.
- c. kn-xít-ən iʔ tətwtí iʔ tk<sup>w</sup>-ak<sup>w</sup>.  
 help-[DIR]-1SG.ERG DET boy DET fell-FRED  
 I helped the boy who fell down.

<sup>18</sup>The difference being that the notion of 'intersective' vs. 'non-intersective' modifiers does not seem to be relevant to an Okanagan speaker's judgements of attributive modifications.

- (30) a. \*kn-xít-ən                    iʔ    ʃnnumt t    xíxwtəm.  
           help-BEN-1SG.ERG DET hurt    ATTR little.girl  
           I helped the girl who got hurt.
- b. kn-xít-ən                    iʔ    ʃnnumt iʔ    xíxwtəm.  
           help-BEN-1SG.ERG DET hurt    DET little.girl  
           I helped the girl who got hurt.
- c. kn-xít-ən                    iʔ    xíxwtəm iʔ    ʃnnumt.  
           help-BEN-1SG.ERG DET little girl DET hurt  
           I helped the girl who got hurt.
- (31) a. \*wík-ən                    iʔ    tʰwílx t    skəkʔákaʔ.  
           see-[DIR]-1SG.ERG DET fly    ATTR birds  
           I saw the flying birds.
- b. wík-ən                    iʔ    tʰwílx iʔ    skəkʔákaʔ.  
           see-[DIR]-1SG.ERG DET fly    DET birds  
           I saw the flying birds.
- c. wík-ən                    iʔ    skəkʔákaʔ iʔ    tʰwílx.  
           see-[DIR]-1SG.ERG DET birds    DET fly  
           I saw the flying birds.
- (32) a. \*wík-ən                    aʔ    c-ʔəp-mə-ncút                    t    xíxwtəm.  
           see-[DIR]-1SG.ERG DET CUST-jump-MIN-REFLEX ATTR little.girl  
           I saw the little girl who jumped.
- b. wík-ən                    aʔ    c-ʔəp-mə-ncút                    iʔ    xíxwtəm.  
           see-[DIR]-1SG.ERG DET CUST-jump-MIN-REFLEX DET little.girl  
           I saw the little girl who jumped.
- c. wík-ən                    iʔ    xíxwtəm aʔ    c-ʔəp-mə-ncút.  
           see-[DIR]-1SG.ERG DET little.girl DET CUST-jump-MIN-REFLEX  
           I saw a little girl who jumped.

Semantically transitive possessor predicates (33) and formally transitive pred-

icates (34) are also uniformly ungrammatical as attributive modifiers, as shown by the (a) examples below. Speakers correct examples of this type to what I claim is a head-final relative clause configuration (b cases).

- (33) a. \*ʔiɬ-ən                      iʔ    s-c-ǰáw-səlɣ                      t                      qáqx<sup>w</sup>əlɣ.  
           eat-[DIR]-1SG.ERG    DET    NOM-CUST-dry-3PL.POSS    ATTR    fish  
           I ate the fish that are drying.
- b. ʔiɬ-ən                      iʔ    s-c-ǰáw-səlɣ                      iʔ    qáqx<sup>w</sup>əlɣ.  
           eat-[DIR]-1SG.ERG    DET    NOM-CUST-dry-3PL.POSS    DET    fish  
           I ate the fish that are drying.
- (34) a. \*wík-ən                      iʔ    tʰap-ənt-ísəlɣ                      t                      skəkʔákaʔ.  
           see-[DIR]-1SG.ERG    DET    shoot-DIR-3PL.ERG    ATTR    birds  
           I saw some birds that they shot.
- b. i-s-c-ǰaʔǰaʔ-ám                      iʔ    tʰap-ənt-ísəlɣ                      iʔ  
           1SG.POSS-NOM-CUST-look.for-MID    DET    shoot-DIR-3PL.ERG    DET  
           skəkʔákaʔ.  
           birds  
           I'm looking for some birds that they shot.

In sum, attributive modification may be defined as a strictly head-final configuration, where the modifier is a non-clausal, non-eventive adjectival or nominal element, and the nominal head is introduced by 'attributive' *t*.

The distribution of modifiers in CNPs and complex DPs provides a language-internal diagnostic for distinguishing: (i) individual-level versus stage-level states, and (ii) states from unergatives and more complex, eventive types of predicates. The pattern is summarized in Table 6.2.

**Table 6.2:** Distribution of Predicate Types in Attributive Modifications

| Predicate Class  | CNP<br>modifer<br>w/o <i>ac</i> - | CNP<br>modifier<br>w/ <i>ac</i> - | complex<br>DP<br>modifier | semantic effect of<br>adding <i>ac</i> - |
|------------------|-----------------------------------|-----------------------------------|---------------------------|--|
| I-level states   | ✓                                 | *                                 | ✓                         | -  |
| S-level states   | *                                 | ✓                                 | ✓                         | I-level state                            |
| other predicates | *                                 | *                                 | *                         | customary/habitual                       |

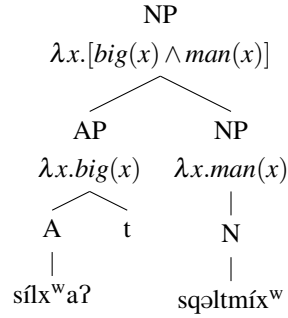
Although eventive unaccusatives, unergatives, and thematically/formally transitive predicates cannot occur as attributive modifiers, the data in this section have shown that they may occur as modifiers if the head is introduced by the determiner *i?*, rather than attributive *t*. Additionally, cases where the head is introduced by *i?* were shown to exhibit variable head-modifier ordering. I suggest that these two characteristics, either separately or in tandem, are indicative of a relative clause structure, and will have more to say on this in following sections, but first, I discuss the syntax of attributive modification.

### 6.2.3 Syntax of Attributive Modification

Following Koch (2006) for Thompson, I suggest that attributive *t* may be understood as an overt indicator that predicate modification (Heim and Kratzer, 1998) is occurring; a morphological reflex of sorts, devoid of semantic content.<sup>19</sup> Just as in English, predicate modification is a covert operation in Okanagan, but unlike in English, an overt indication of the operation (i.e. *t*) is required. A compositional representation of the complex nominal predicate in (14a) is shown below as Figure 6.1:

<sup>19</sup>This is similar to my analysis of quasi-object *t* as a reflex of semantic incorporation in chapter 5. As mentioned in a previous footnote in this chapter, it is tempting to analyze *t* as always indicative of predicate modification, however *t* also intervenes between demonstratives and nominals in equative contexts (cf. chapter 8), and I argue that demonstratives are not predicative.

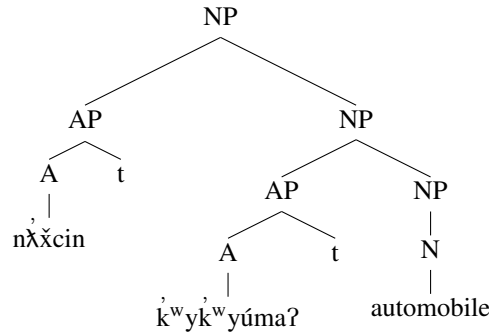
**Figure 6.1:** Complex Nominal Predicate



It is relatively easy to show that attributive *t* associates with the modifying AP, rather than the head NP.<sup>20</sup> Evidence comes from data involving modifier stacking, such as (35). The structure I propose for (35) is shown as (6.2).

- (35) n-λ̣̣-cin      t      kʷ-kʷyúmaʔ   t      automobil.  
n-loud-mouth   ATTR   IRED-little   ATTR   automobile  
(That's a) loud little car.

**Figure 6.2:** Complex Nominal Predicate: Modifier Stacking



An alternative to Figure 6.2 associates *t* with the head nominal. For (35), this alternative implies that a predicate adjective might select for either an AP (e.g.

<sup>20</sup>There is no evidence that *t* is a constituent of a DP structure in these cases, since an (overt at least) determiner cannot co-occur with *t* in this environment, unlike the case for Thompson which allows oblique *t* and determiner *k* sequences to occur between an attributive modifier and head.

$k^w k^w yúma?$  ‘little’) or an NP complement (e.g. *automobil* ‘car’), so long as the complement is introduced by  $t$ , but we then lose the generalization that the final element of a CNP must always be a noun. In other words, the alternative predicts that  $n\acute{x}cín\ t\ k^w k^w yúma?$  ‘that’s a loud little’ should be grammatical, but it is not.

In any case, attributive  $t$  is semantically vacuous: It neither changes a predicate NP into an argument, nor licenses an NP to function as a predicate.

#### 6.2.4 Summary of Attributive Modification

This section has shown that there are semantic constraints on the modifying constituent in an attributive modification: Only predicates that either are individual-level predicates already (e.g.  $t\acute{h}t\acute{h}t$  ‘straight/true’), or have been coerced into such predicates by adding customary/stative *ac-* (e.g.  $q^w ím\acute{m}$  ‘frightened’) may occur in this position. I cautiously suggest that the category of adjectives in Okanagan comprises just that class of basic and derived lexical items that may occur as modifiers, but not heads, in complex DP structures.<sup>21</sup>

The ungrammaticality of eventive unaccusatives, unergatives, and transitives as attributive modifiers supports an analysis whereby constructions for which they *can* modify a nominal are structurally distinct from attributive modifications. I suggest that this distinction corresponds to a structural distinction between attributive and relative clause modification, to which I now turn.

### 6.3 Relative Clauses

Nominal modifications involving predicates other than non-eventive unaccusatives follow morphosyntactic patterns distinct from those outlined in the previous section for attributive modification. I claim that these involve relative clause modification. I begin first with some basic properties and some surface-level characteristics of relative clauses, before presenting evidence that Okanagan relative clauses are formed by movement of a DP to the left periphery of the relative clause (cf. Davis (2004, 2010a) for Lillooet and Koch (2006) for Thompson.)

<sup>21</sup>See Davis (2011) and Koch (2006) for discussion of this issue in Lillooet and Thompson, respectively.

### 6.3.1 Introducing Relative Clauses

I adopt the syntactic definition of a relative clause given in Kroeber (1999, 252): “Relative clauses are clauses that contain gaps that are co-referent with an NP in a higher clause, and the relative clause serves to restrict the type of entity denoted by the matrix NP.” By way of example, the bracketed, ergative-inflected relative clause *iʔ wíkən* ‘that I saw’ restricts the bird under discussion in (36a), and the nominalized relative clause *[iʔ] isckʷúl* ‘the (one) that I made’ restricts the type of shirt under discussion in (36b).

- (36) a. *tʰáp-nt-ín*                      *iʔ*    *skəkʰákaʔ* [*iʔ*    *wík-ən*].  
          shoot-DIR-1SG.ERG DET bird                      DET see-[DIR]-1SG.ERG  
          I shot the bird that I saw.
- b. *iʔ*    *lasmíst* [*[iʔ]*    *i-s-c-kʷúl*]  
          DET shirt    [DET] 1SG.POSS-NOM-CUST-make  
                          *səl-mí-n*.  
                          lose-MIN-[DIR]-1SG.ERG  
          The shirt which I made, I lost.

I follow Heim and Kratzer (1998, 65) for English (and Koch (2006) for Thompson) in assuming the following semantic distinction between relative clauses and attributive modification: A relative clause by definition utilizes a rule of predicate modification in addition to lambda-abstraction of the variable corresponding to a WH-gap, whereas attributive modification simply involves a rule of predicate modification. Syntactically, lambda-abstraction is induced by A' extraction of a constituent, leaving a gap. Attributive modification is analogous to adjectival modification in English.

Keenan (1985) states that an important feature of a true relative clause is that it has to be a unique grammatical construction. For Okanagan (and the rest of the Southern Interior), a relative clause is not identifiable by special inflectional morphology on the clausal modifier (Kroeber, 1999, 272), but instead by the following criteria:



- a. In the case of a thematically transitive modifier, a relative clause structure is identifiable by an *i?* determiner and/or *t* oblique marker which precedes the modifier, and by the availability of (and preference for) head-initial modification.
- b. In the case of an intransitive modifier, a relative clause structure is identifiable by an *i?* determiner or *t* oblique marker which precedes the head, *and* by the availability of a head-initial structure.

Under these criteria, the following are all examples of relative clauses. (37a) and (37d) have semantically transitive modifying clauses, while (37b,c) both have intransitive modifying clauses.

- (37) a. way' c-my-st-in i? sqəltmíx<sup>w</sup> i?  
 yes CUST-know-CAUS-1SG.ERG DET man DET  
 ks-k'<sup>w</sup>ul-łx<sup>w</sup>-m-s t citx<sup>w</sup>.  
 FUT-make-house-MID-3SG.POSS OBL house  
 I know a man who can build you a house.
- b. way' ka?kíc-ən i? sənkt'ca?sqáħa? a? c-yalt.  
 yes find-[DIR]-1SG.ERG DET horse DET CUST-run.away  
 I found the horse that ran away.
- c. kn wík-əm t skəkʔáka? t cə-cáma?t.  
 1SG.ABS see-MID OBL birds OBL RED-small(PL)  
 I saw some birds that were small.
- d. kn s-c-k'<sup>w</sup>ul-x t yámħ'a? t  
 1SG.ABS NOM-CUST-make-INTR OBL cedar.bark.basket OBL  
 ks-ya?-yá?ħa?-səlx.  
 FUT-IREN-show-3PL.POSS  
 I'm making a basket that they will show.

None of the examples in (37) can be analyzed as attributive modifications, because they are not head-final modifications.<sup>22</sup>

<sup>22</sup>Head-final variants of all four of these sentences are possible however. A head-final version

Unlike attributive modification, relative clause modification is prototypically head-initial (38a), although head-final relative clauses (38b) are possible and are freely volunteered. (38c) confirms that the head-final ordering cannot be a case of attributive modification, since attributive *t* is not permitted in this context.

- (38) a. <sup>ʔ</sup>tʰáp-nt-ín                      iʔ    skəkʔákaʔ    iʔ    wík-ən.  
          shoot-DIR-1SG.ERG    DET    bird                      DET    see-[DIR]-1SG.ERG  
          I shot the bird that I saw.
- b. <sup>ʔ</sup>tʰáp-nt-ín                      iʔ    wík-ən                      iʔ    skəkʔákaʔ.  
          shoot-DIR-1SG.ERG    DET    see-[DIR]-1SG.ERG    DET    bird  
          I shot the bird that I saw.
- c. \*<sup>ʔ</sup>tʰáp-nt-ín                      iʔ    wík-ən                      t    skəkʔákaʔ.  
          shoot-DIR-1SG.ERG    DET    see-[DIR]-1SG.ERG    OBL    bird  
          I shot the bird that I saw.

For Okanagan, either *iʔ* or *t* must introduce *both* the head and clausal portion of a relative.<sup>23</sup>

- (39) a. \*wayʔ ʔiʔ-ən                      iʔ    pʔyq-nt-is                      qáqx<sup>w</sup>əlx.  
          yes    eat-[DIR]-1SG.ERG    DET    cook-DIR-3SG.ERG    fish  
          Yes, I ate the fish that he cooked.
- b. wayʔ ʔiʔ-ən                      iʔ    pʔyq-nt-is                      iʔ    qáqx<sup>w</sup>əlx.  
          yes    eat-[DIR]-1SG.ERG    DET    cook-DIR-3SG.ERG    DET    fish  
          Yes, I ate the fish that he cooked.

---

of (37c) is ambiguously a case of attributive modification. The structure of post-nominal adjectival modification, especially those introduced by the oblique marker such as (37c), is unclear and needs further work.

<sup>23</sup>This essentially means that *pre-nominal* (39a) and *post-posed* (40a) relatives are ungrammatical in Okanagan. I introduce this terminology, stemming from Davis (2010a), below in section 6.3.3.

- (40) a. \*way' ʔiʔ-ən iʔ qáqx<sup>w</sup>əlx p'ýq-nt-is.  
 yes eat-[DIR]-1SG.ERG DET fish cook-DIR-3SG.ERG  
 Yes, I ate the fish that he cooked.
- b. way' ʔiʔ-ən iʔ qáqx<sup>w</sup>əlx iʔ p'ýq-nt-is.  
 yes eat-[DIR]-1SG.ERG DET fish DET cook-DIR-3SG.ERG  
 Yes, I ate the fish that he cooked.

The most straightforward relativization patterns involve a ‘matching effect’ between the particle which introduces the head nominal and the particle which introduces the modifier, as in the head-initial (41) and head-final examples (42) below. The initial particle follows predictably from the selectional properties of the main clause predicate. As such, one might guess that the second particle is simply a copy of the initial particle, but I will show in the next section that things are not so simple.<sup>24</sup>

- (41) a. way' caʔ-nt-ís iʔ sqəltmíx<sup>w</sup> iʔ wik-s.  
 yes punch-DIR-3SG.ERG DET man DET see-[DIR]-3SG.ERG  
 He hit the man he saw.
- b. i-s-c-k'wúl-əm iʔ lpot iʔ máʔ-ən.  
 1SG.POSS-NOM-CUST-fix-MID DET cup DET break-[DIR]-1SG.ERG  
 I am fixing the cup that I broke.
- c. John k'wúl-əm t yamǎ<sup>w</sup>aʔ t kʔ-s-n-q'wíʔ-tən-s.  
 John make-MID OBL basket OBL U.POSS-NOM-n-pack-INSTR-3SG.POSS  
 John made the basket he was going to carry.
- d. kn s-c-k'wúl-x t yámǎ<sup>w</sup>aʔ t  
 1SG.ABS NOM-CUST-make-INTR OBL cedar.bark.basket OBL  
 ks-yaʔ-yáʔǎʔ-səlx.  
 FUT-RED-show-3PL.POSS  
 I'm making a basket that they will show.

<sup>24</sup>The second particle(s) is determined by the selectional properties of the relative clause predicate, at least for relative clause types where clause-internal movement of a DP can be demonstrated. See section 6.3.3. See also 6.5 for a more technical discussion of the matching effect.

- (42) a. way' caʔ-nt-ís                      iʔ    wik-s                      iʔ    sqəltmíxʷ.  
           yes    punch-DIR-3SG.ERG    DET    see-[DIR]-3SG.ERG    DET    man  
           He hit the man he saw.
- b. i-s-c-kʷúl-əm                      iʔ    máʔ-ən                      iʔ    lpot.  
           1SG.POSS-NOM-CUST-fix-MID    DET    break-[DIR]-1SG.ERG    DET    cup  
           I am fixing the cup that I broke.
- c. John kʷúl-əm    t    kʰ-s-n-qʷíʔ-tən-s                      t  
           John    make-MID    OBL    U.POSS-NOM-n-pack-INSTR-3SG.POSS    OBL  
           yamxʷaʔ.  
           basket  
           John made the basket he was going to carry.
- d. kn            s-c-kʷúl-x            t    ks-yaʔ-yáʔxʰaʔ-səlx            t  
           1SG.ABS    IMPF-make-IMPF    OBL    FUT-RED-show-3PL.POSS    OBL  
           yámxʷaʔ.  
           cedar.bark.basket  
           I'm making a basket that they will show.

The modifiers in (41-42) are all thematically transitive, with either ergative or possessive subject morphology. Likewise non-eventive unaccusatives (43-45), eventive unaccusative modifiers (46) and unergative modifiers (47-48) are also grammatical within these 'matching' patterns, with variable ordering between the head and modifier:

- (43) a. wík-ən                      iʔ    skəkʰákaʔ    iʔ    cə-cáʔmaʔt.  
           see-[DIR]-1SG.ERG    DET    birds            DET    RED-small(PL)  
           I saw the small birds.
- b. wík-ən                      iʔ    cə-cámaʔt            iʔ    skəkʰákaʔ.  
           see-[DIR]-1SG.ERG    DET    RED-small(PL)    DET    birds  
           I saw the small birds.

- (44) a. kn-xít-ən                      iʔ    tkɬmilx<sup>w</sup> iʔ    paʔ-paʔs-ɪlx.  
           help-BEN-1SG.ERG DET woman    DET RED-sad-DEV  
           I helped the sad woman.
- b. kn-xít-ən                      iʔ    paʔ-paʔs-ɪlx iʔ    tkɬmilx<sup>w</sup>.  
           help-BEN-1SG.ERG DET RED-sad-DEV DET woman  
           I helped the sad woman.
- (45) a. ixíʔ ʔamn-(n)t-ís              iʔ    pus iʔ    ʔilx<sup>w</sup>t.  
           DET feed-DIR-3SG.ERG DET cat DET hungry  
           He fed the cat that was hungry.
- b. ʔamn-(n)t-ísəlx              iʔ    ʔilx<sup>w</sup>t iʔ    pupʔas.  
           feed-DIR-3PL.ERG DET hungry DET kitten  
           They fed the hungry kitten.
- (46) a. kn-xít-ən                      iʔ    tətʔwít iʔ    ʔk<sup>w</sup>-ak<sup>w</sup>.  
           help-BEN-1SG.ERG DET boy    DET fall.down-RED  
           I helped the boy who fell down.
- b. kn-xít-ən                      iʔ    ʔk<sup>w</sup>-ak<sup>w</sup>              iʔ    tətʔwít.  
           help-BEN-1SG.ERG DET fall.down-RED DET boy  
           I helped the boy who fell down.
- (47) a. wík-ən                          iʔ    xíxwtəm aʔ    c-ʔəʔp-mə-ncút.  
           see-[DIR]-1SG.ERG DET little.girl DET CUST-jump-MIN-REFLEX  
           I saw a little girl that jumped.
- b. wík-ən                          aʔ    c-ʔəʔp-mə-ncút              iʔ    xíxwtəm.  
           see-[DIR]-1SG.ERG DET CUST-jump-MIN-REFLEX DET little.girl  
           I saw the boy who jumped.

- (48) a. wík-ən                      iʔ    skəkʔákaʔ iʔ    t̥x<sup>w</sup>tilx.  
           see-[DIR]-1SG.ERG DET birds            DET fly  
           I saw the birds that were flying.
- b. wík-ən                      iʔ    t̥x<sup>w</sup>tilx iʔ    skəkʔákaʔ.  
           see-[DIR]-1SG.ERG DET fly            DET birds  
           I saw the flying birds.

Unaccusative (49-51) and unergative predicates (52-53) alike may also modify an oblique argument within a matching *t* pattern:<sup>25</sup>

- (49) a. kn            wík-əm t    s̥wáráx̣n t    q<sup>w</sup>ʔay.  
           1SG.ABS see-MID OBL frog            OBL blue  
           I see a frog that is blue.
- b. kn            wík-əm t    q<sup>w</sup>ʔay t    s̥wáráx̣n.  
           1SG.ABS see-MID OBL blue            OBL frog  
           I see a frog that is blue.
- (50) a. kn            ʔiys-əm t    lasmíst t    č̣ẉ-č̣aẉt.  
           1SG.ABS buy-MID OBL shirt            OBL RED-clean  
           I bought a clean shirt.
- b. kn            ʔiys-əm t    č̣ẉ-č̣aẉt t    lasmíst.  
           1SG.ABS buy-MID OBL RED-clean OBL shirt  
           I bought a clean shirt.

---

<sup>25</sup>Though it should be said that the head-initial versions of (52-53) are more marginal than the head-final versions. This could be taken as evidence that the ‘double *t*’ pattern is more closely related to attributive than to relative clause modification, although it cannot be understood *as* attributive clause modification, since the modifiers in the examples cannot occur in CNPs. See related discussion in section 6.5.

- (51) a. kn            wík-əm t       skəkʔákaʔ t       cə-cáʔmaʔt.  
           1SG.ABS see-MID OBL birds            DET RED-small(PL)  
           I saw some small birds
- b. kn            wík-əm t       cə-cámaʔt       t       skəkʔákaʔ.  
           1SG.ABS see-MID DET RED-small(PL) OBL birds  
           I saw some small birds.
- (52) a. kn            wík-əm t       spəplínaʔ t       c-ʔətp-mə-ncút.  
           1SG.ABS see-MID OBL rabbit       OBL CUST-jump-MIN-REFLEX  
           I saw the rabbit who jumped.
- b. kn            wík-əm t       c-ʔətp-mə-ncút            t       spəplínaʔ.  
           1SG.ABS see-MID OBL CUST-jump-MIN-REFLEX OBL rabbit  
           I saw the rabbit who jumped.
- (53) a. kn            wík-əm t       tuʔ-tətwít t       c-caʔ-cʔálx.  
           1SG.ABS see-MID OBL RED-boy       OBL CUST-RED-bathe  
           I saw some swimming boys.
- b. kn            wík-əm t       c-caʔ-cʔálx            t       tuʔ-tətwít.  
           1SG.ABS see-MID OBL CUST-RED-bathe OBL RED-boy  
           I saw some swimming boys.

The head-final versions of (49-51) may be analyzed, ambiguously, as attributively modified complex obliques; however, the head-initial versions of these examples cannot be. Furthermore, given the distinctive morpho-syntactic pattern of attributive modification, neither the head-initial nor head-final versions of (43-48) are analyzable as attributive modifications, at least not on par with the CNPs and complex obliques discussed in the previous section. This is because *iʔ* is a determiner, but attributive *t* is not, which crucially implies a structural distinction.

Nouns can also occur as modifiers within a relative clause modification pattern. Note that (54) below is translated as a head-initial modification, and not as a head-final (e.g. ‘lady boss’) attributive.

- (54) wík-ən                      iʔ    tkłmíx<sup>w</sup> iʔ    ylmíx<sup>w</sup>əm.  
       see-[DIR]-1SG.ERG DET woman    DET chief  
       I met the lady who is chief/boss.

If (54) does in fact involve a relative clause, the significant implication is that nouns can project clausal structure.<sup>26,27</sup>

### 6.3.2 Other Characteristics of Okanagan Relatives

There are other noteworthy characteristics of Okanagan relative clauses which I will briefly touch upon in this section. These are as follows:

- a. No dedicated relative clause inflectional pattern (Kroeber, 1999)
- b. No WH-relative pronouns (Davis, 2010a)
- c. Headless relatives are possible, and quite common (cf. section 4.3)
- d. A wide range of grammatical roles can be relativized, oblique arguments being an exception
- e. Long-distance relativization is possible

(a) Unlike many other Salish languages, Okanagan relative clauses do not exhibit any special inflectional pattern. In other words, pronominal morphology found on relative clauses may also generally be found on main clause predicates (Kroeber, 1999, 272,304). Thus, the ergative relative clause predicate in (55a) and the nominalized relative in (55b) can both function as main clause predicates in appropriate contexts.<sup>28</sup>

<sup>26</sup>This possibility becomes important to consider especially with regards to DP-DP predication and cleft data. I discuss this in more detail in section 8.8.

<sup>27</sup>Nouns prefixed by *?akł-* ‘to have’ are also able to function as relative clause predicates:

- (i) a. wík-ən                      iʔ    sqəłtmíx<sup>w</sup> [iʔ]    ?akł-cítx<sup>w</sup> (iʔ)    kłl    tik<sup>w</sup>t.  
       see-[DIR]-1SG.ERG DET man    [DET] HAVE-house (DET) LOC lake  
       I’ve seen a man that had a house by the lake.
- b. wík-ən                      [iʔ]    ?akł-cítx<sup>w</sup> iʔ    sqəłtmíx<sup>w</sup>.  
       see-[DIR]-1SG.ERG [DET] HAVE-house DET man  
       I’ve seen a man that has a house.

<sup>28</sup>The exact semantic difference between (55a) and (55b), if there actually is one, remains unclear.



(55) a. tʰap-nt-ín                      iʔ      wík-ən                      iʔ      skəkʔákaʔ.  
 shoot-DIR-1SG.ERG    DET    see-[DIR]-1SG.ERG    DET    bird  
 I shot the bird that I've seen.

b. tʰap-nt-ín                      [iʔ]      i-s-c-wík                      iʔ  
 shoot-DIR-1SG.ERG    [DET]    1SG.POSS-NOM-CUST-see    DET  
 skəkʔákaʔ.  
 bird  
 I shot the bird that I've seen.

(b) As in the rest of Salish (Davis, 2010a), there are no relative pronouns, WH or otherwise, in Okanagan (56):

(56) a. way' caʔ-nt-ís                      iʔ      sqəltmíxʷ (\*swit) iʔ  
 yes    punch-DIR-3SG.ERG    DET    man                      who      DET  
 wik-s.  
 see-[DIR]-3SG.ERG  
 He hit the man who he saw.

b. John kʷul-əm      t      yámχʷaʔ (\*stim') t  
 John    make-MID    OBL    basket                      what      OBL  
 kɫ-s-n-qʷɪl-tən-s.  
 U.POSS-NOM-n-pack-INSTR-3SG.POSS  
 John made the basket which he was going to carry.

(c) Both subject and object-centered 'headless' relatives are common in Okanagan (57). I assume that these are a special type of head-initial relative, where the head noun, and its selecting determiner, are both null (see previous discussion in section 4.3).

(57) a. qəy'-nt-íxʷ                      iʔ      qʷəl-qʷɪl-st-m-ən.  
 write-DIR-2SG.ERG    DET    RED-speak-CAUS-2SG.ACC-1SG.ERG  
 Write down what I'm telling you.

---

Speakers indicate that nominalized forms like (55b) are past-tense completive, while ergative forms like (55a) are present-tense completive, but my research suggests that there is no clear demarcation between the two, and that both can be uttered felicitously within an identical discourse situation.



passive agent has been extracted.<sup>29</sup>

- (60) s-c-<sup>ʔ</sup>ǎaʔ-<sup>ʔ</sup>ǎaʔ-ám-s                      iʔ    səx<sup>w</sup>-máʔ-máyáʔ-m-s  
NOM-CUST-RED-look.for-MID-3SG.POSS DET OCC-RED-teach-MID-3SG.POSS  
**iʔ   t   kn-xít-əm         iʔ   l   sən-qəy'-mín-tən.**  
DET OBL help-DIR-PASS DET LOC LOC-write-INSTR-INSTR  
He's looking for the teacher that helped him at school.

Oblique arguments of formally intransitive predicates cannot generally be relativized (61a). In these cases, speakers will normally correct the relativized predicate to a transitive form (61b,c) (Montler, 1993), though (61b) shows that it is insufficient to change the relativized predicate to a transitive form in the context of a morphologically intransitive main clause predicate. There are apparent exceptions to the generalization that oblique arguments of formally intransitive predicates cannot be relativized (62).

- (61) a. \*kn ks-kaʔkíc-aʔx t automobile kn (t)  
 1SG.ABS FUT-find-INTR OBL automobile 1SG.ABS (OBL)  
 s-c-ḵaʔ-ḵʔ-ús-x.  
 NOM-CUST-RED-look.for-eye-INTR  
 I'm gonna find the car I'm looking for.
- b. \*kn ks-kaʔkíc-aʔx t automobile t c-ḵaʔ-ḵaʔ-st-ín.  
 1SG.ABS FUT-find-INTR OBL automobile OBL CUST-RED-look.for-CAUS-1SG.ERG  
 I'm gonna find the car I'm looking for.
- c. i-ks-kaʔkíc-əm iʔ automobile aʔ c-ḵaʔ-ḵaʔ-st-ín.  
 1SG.POSS-FUT-find-MID DET automobile DET CUST-RED-look.for-CAUS-1SG.ERG  
 I'm going to find the car that I'm looking for.

<sup>29</sup>Passive-agent relatives show evidence for formation through A' movement, as I discuss in the next section. See specifically the discussion around example 67.

- (62) kn            ʃmínk-əm t        siwłk<sup>w</sup> t        ks-síwst-x  
 1SG.ABS want-MID OBL water OBL FUT-drink-INTR  
 i[n]-sláʃt.  
 1SG.POSS-friend  
 I want some water for my friend to drink.

(e) Long-distance relativization is possible (63). For (63a), the nominal head *sʰaʔcínəm* ‘deer’ is an underlying object argument of the transitive imperative *cpyʔntík<sup>w</sup>* ‘cook it!’, while for (63b), the nominal head *tkłmilx<sup>w</sup>* ‘woman’ is an underlying subject argument of the intransitive predicate *x<sup>w</sup>uy* ‘go.’

- (63) a. John tʃap-nt-ís                    iʔ    sʰaʔcínəm iʔ    cu-s  
 John shoot-DIR-3SG.ERG DET deer            DET say-[DIR]-3SG.ERG  
 Norman Benny “c-pyʔq-nt-ík<sup>w</sup>!”.  
 Normay Benny CUST-bake-IMP  
 John shot the deer that Norman told Ben to cook.
- b. uc    wik-nt-x<sup>w</sup>                    iʔ    tkłmilx<sup>w</sup>    kl-klax<sup>w</sup>    iʔ  
 YNQ see-DIR-2SG.ERG DET woman    RED-evening DET  
 wik-s                    Sarah ʔaʔ    x<sup>w</sup>uy?  
 see-[DIR]-3SG.ERG Sarah COMP go  
 Do you know the woman who Sarah saw leave (early last night)?

### 6.3.3 Relative Clause Formation by Movement

As first noted by Kroeber (1997, 396) for Thompson, locative relatives seem to involve clause internal movement of a PP to the left periphery of a relative clause. Kroeber notes that in examples like (64), “...the preposition codes the relation of gap to relative clause predicate, not the relation of the whole relative clause to the matrix predicate.”

- (64) (w)ʔéx kn x<sup>w</sup>íʔ-m te npúytn<sub>2</sub> [[n-e [Ø<sub>NP<sub>2</sub></sub>]<sub>PP<sub>1</sub></sub>]  
 PROG 1SG look.for-MID OBL.DET bed in-DET  
 x<sup>w</sup>úy' wn ʔ<sup>w</sup>óyt t<sub>1CP</sub>]  
 FUT 1SG.CJCT sleep

I'm looking for a bed where I'm gonna sleep. (Koch, 2006, 132)

In other words, because the preposition *n* “in” in (64) helps to specify the location of the sleeping event, and not the looking event (i.e. it fixes the location of ‘the bed’ in this case), the preposition may plausibly be analyzed as having moved from a position inside the relative clause, following the verb ʔ<sup>w</sup>óyt ‘sleep’. Davis (2004) and Koch (2006) have shown for Lillooet and Thompson respectively that the determiner also moves, or rather, the clause internal DP “pied-pipes” the preposition to a clause-initial position. This is illustrated by the bracketing in (64).

Since Lillooet and Thompson determiners vary with regards to their spatio-temporal properties, Davis (2004, 2010a) and Koch (2006) are able to show that the determiner introducing the relative clause reflects the spatio-temporal properties of the relative clause predicate, rather than the main clause predicate, confirming that movement also occurs in relatives which do not involve locative marking. For Okanagan, it is not possible to use different determiners as a diagnostic for movement, since there is only one determiner involved in relativization, *iʔ*. Nevertheless, the oblique marker *t* as well as the other locative markers, help to confirm that movement has occurred. I now discuss why.

Recall that for Okanagan, the oblique marker *t* and locative markers *k̓l*, *l* and *tl* may co-occur with *iʔ*. These particle sequences help provide evidence for clause-internal movement. In main clauses, the combination of *iʔ* and *t* introduces instruments and passive agents, as in (65), and the combination of *iʔ* and a locative particle designates a DP as a locative adjunct, as in (66) *iʔ tl sqəltmíx<sup>w</sup>* “from the man”.

- (65) a.  $\dot{t}\dot{\text{ʔap-nt-ís}}$   $[i\text{ʔ} \quad t \quad \text{s-wlwlm-ink}_{PP}]$ .  
 shoot-DIR-3SG.ERG DET OBL NOM-iron-weapon  
 He shot it with a gun.
- b. Mike  $\dot{c}\dot{u}\dot{m}\text{-qš-nt-əm}$   $[i\text{ʔ} \quad t \quad \text{tk}\dot{t}\text{milx}^w_{PP}]$ .  
 Mike suck-nose-DIR-PASS DET OBL woman  
 Mike was kissed by the woman.
- (66)  $\text{c-yłt-mí-st-səlx}$   $[i\text{ʔ} \quad \text{tl} \quad \text{sqəłtmíx}^w_{PP}]$ .  
 CUST-run.away-MIN-CAUS-3PL.ERG DET LOC man  
 They're running away from the man.

In support of a movement analysis for Okanagan relatives, consider that when instruments and passive agents like those in (65) are relativized, the relative clause is introduced by both *iʔ* and *t* (67).<sup>30,31</sup>

- (67) a.  $k^w\text{u}$   $\dot{t}\dot{\text{ʔq}}^w\text{-əm-łt}$   $i\text{ʔ}$   $\text{ník-mən}_2$   $[[i\text{ʔ} \quad t \quad [\text{⊗}_{NP_2}]_{PP_1}]$   
 1SG.GEN show-MID-APPL DET cut-INSTR DET OBL  
 $\text{ník-nt-x}^w$   $t_{1CP}]$ .  
 cut-DIR-2SG.ERG  
 Show me the knife that you cut it with.

<sup>30</sup>I leave off bracketing for the DP in (67) for the reader's sake. Recall from chapter 4 that I have analyzed the bracketed PPs in (67) as being introduced by a determiner because of a prosodic inversion of D and P.

<sup>31</sup>Hébert (1982b, 46, ex.46) argues that oblique extractions are ungrammatical, and shows an ungrammatical case of an instrument extraction (as a type of oblique), but her particular example is likely ungrammatical since when overt, the sequence *iʔ t* is stranded at the end of the sentence, and when not overt, there is nothing to code the relation of 'the knife' to 'the man':

- (i)  $*i\text{ʔ} \quad \text{ttwít-wik-s}$   $i\text{ʔ}$   $\text{níkmən}$   $i\text{ʔ}$   $\text{sqəłtmíx}^w$   $\text{pul-st-s}$   
 DET boy see-[DIR]-3SG.ERG DET cut-INSTR DET man kill-CAUS-3SG.ERG  
 $i\text{ʔ} \quad \text{xáŋxəŋ} \quad (i\text{ʔ} \quad t)$ .  
 DET crow (DET OBL)  
 The boy saw the knife that the man killed the crow with.

b. Mike wik-s iʔ tkʔmilx<sup>w</sup><sub>2</sub> [[iʔ t [⊗<sub>NP<sub>2</sub></sub>]<sub>PP<sub>1</sub></sub>]  
Mike see-[DIR]-3SG.ERG DET woman DET OBL  
cúm-qs-nt-əm t<sub>1CP</sub>].  
suck-nose-DIR-PASS

Mike saw the woman he was kissed by.

Note that *iʔ* and *t* normally only co-occur when introducing a passive agent or instrument, or before clauses from which these grammatical roles have been extracted. In extraction contexts involving passive patients, for example, *iʔ t* may not introduce the relative clause, only *iʔ*. (68) shows an example of an extracted patient *iʔ tkʔmilx<sup>w</sup>* ‘the woman’, where the clausal remnant is introduced by the determiner *iʔ*, and an in-situ clause-internal agent is introduced by *iʔ t*. Oblique *t* cannot introduce the relativized predicate, since it is the patient and not the agent that has been extracted.

(68) John s-c-ʔaʔ-ʔaʔ-ám-s iʔ tkʔmilx<sup>w</sup> iʔ  
John NOM-CUST-RED-look.for-MID-3SG.POSS DET woman DET  
(\*t) kn-xít-əm iʔ t sqəltmíx<sup>w</sup>.  
(\*OBL) help-[DIR]-PASS DET OBL man

John is looking for the woman who was helped by the man.

Given that the distribution of the sequence *iʔ t* is limited to the same grammatical subset in both extraction and non-extraction contexts, the sequence *iʔ t* in (67) constitutes evidence for clause-internal movement.

Similarly, when a locative adjunct is extracted in Okanagan, the relative clause is introduced by a determiner plus locative marker sequence, thus furnishing evidence parallel to Thompson (64) that clause-internal movement has indeed occurred. Compare (66) and (69a), in particular.<sup>32</sup>

<sup>32</sup>Not all locative relatives in Okanagan follow the same relativization strategy as that exhibited in (69a-b). In (i) below, the head *sqəltmíx<sup>w</sup>* ‘man’ is coded as a direct patient argument of the possessor predicate *ikstwm* ‘I’m going to sell’, while the shirt is a theme of the lexical ditransitive *tw* ‘to sell’. In (ii), the standard locative extraction strategy is utilized, however the semantics of ‘from’ is duplicated in a main clause demonstrative adverbial *itliʔ* as well as the locative marker *tl*, in addition to the clause-internal locative marker. The nature of this ‘copying’ effect is unclear to me, but (ii) may support the movement account if the first occurrence of *tl* is a copy of the second occurrence, which although normally deleted is not in this case for some reason. (Thanks to Henry Davis for

- (69) a. wik-ən                      iʔ    sqəltmíx<sup>w</sup><sub>2</sub> [[iʔ tɪ       [⊙<sub>NP<sub>2</sub></sub>]PP<sub>1</sub>]  
see-[DIR]-1SG.ERG DET man                      DET LOC  
c-yłt-mí-st-səlχ    t<sub>1CP</sub>].  
CUST-run.away-MIN-CAUS-3PL.ERG  
I see the man that they're running away from.
- b. uc       c-my-st-íx<sup>w</sup>                                      iʔ    sqəltmíx<sup>w</sup><sub>2</sub> [[iʔ kɪ  
YNQ CUST-know-CAUS-2SG.ERG DET man                      DET LOC  
[⊙<sub>NP<sub>2</sub></sub>]PP<sub>1</sub>] tw-mí-st-əm-ən                                      iʔ    łasmíst t<sub>1CP</sub>].  
sell-MIN-CAUS-MIN[?]-1SG.ERG DET shirt  
Do you know the man that I sold the shirt to?

pointing this out to me.)

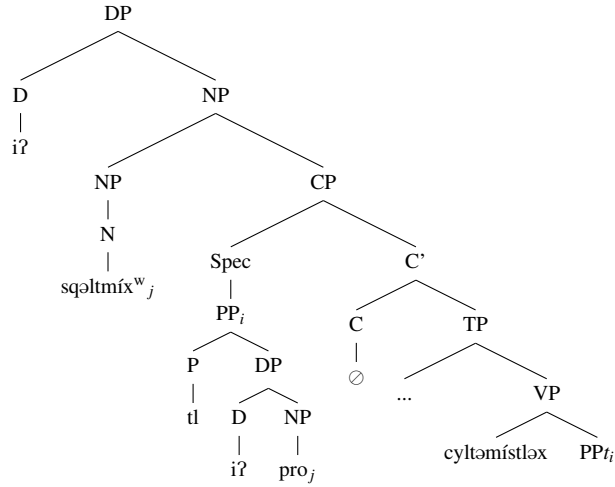
- Do you know the man I'm going to sell the shirt to?

c-ǰəw'-w'-xít-m-ən.

Take from these berries that I am drying for you.



**Figure 6.3:** Okanagan Locative Relative Clause



‘the man that they’re running away from’

Assuming that *all* relative clauses in Okanagan are similarly formed, the structure in (6.3) implies that the sequence of particles introducing the clausal remnant should *always* code the relation of the gap to the relative clause predicate. Consider that subject and object extractions in Okanagan are characterized by having the determiner *i?* introduce both the head and the clausal remnant.<sup>33</sup> Since transitive predicates always select for *i?* DP objects in main clause contexts (70a), the prediction is that when an object is extracted, the clausal remnant will be introduced by only a determiner *i?*. This prediction is upheld (70b).<sup>34</sup>

- (70) a. wik-s                      i?    sqəłtmíxʷ  
           see-[DIR]-3SG.ERG man  
           He saw the man.

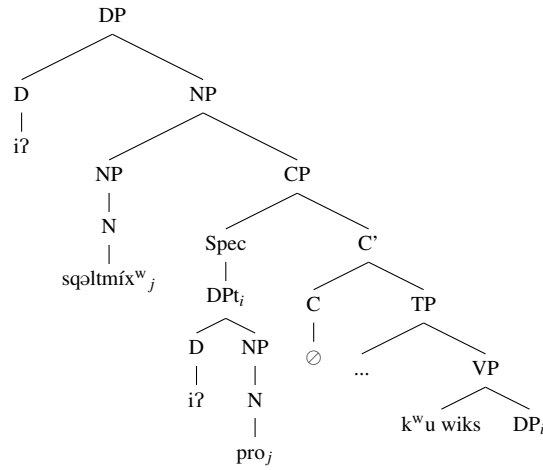
<sup>33</sup>At least when the main clause predicate is transitive. When the main clause predicate is intransitive, and the modifier is an irrealis, nominalized form (cf. 41c,d), *t* may introduce both head and modifier. A coherent syntactic account of these double-oblique modifications has yet to be worked out, though see section 6.5 for some discussion.

<sup>34</sup>These are consistent with the movement hypothesis, but do not constitute a particularly strong argument for it, since as Koch (2006) notes for similar cases in Thompson, the two determiners may simply be copies of one another.

b. way' ca?-nt-ís                      i?    sqəltmíx<sup>w</sup> i?    (\*t)  
       yes   punch-DIR-3SG.ERG   DET   man                DET   (\*OBL)  
       wik-s.  
       see-[DIR]-3SG.ERG  
       He hit the man he saw.

As a working hypothesis then, I assume that *all* Okanagan relatives are formed by clause-internal movement. I further assume that relative clauses are canonically head-initial, and that head-final relatives are derived from head-initials by an additional movement of the relative clause CP to a position preceding the DP containing the head, presumably Spec DP.<sup>35</sup> Compare the head-initial relative clause *i? sqəltmíx<sup>w</sup> i? k<sup>w</sup>u wiks* ‘the man who saw me’ (6.4) with its equivalent head-final version *i? k<sup>w</sup>u wiks i? sqəltmíx<sup>w</sup>* (6.5):

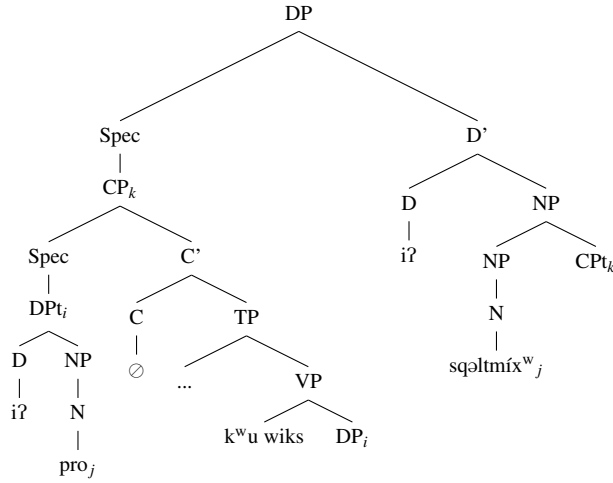
**Figure 6.4:** Head-initial (a.k.a. ‘post-nominal’) Relative Clause



‘The man who saw me.’

<sup>35</sup>Or possibly adjoined to DP. Pre-posed (head-final) relatives in Okanagan (and Thompson) are generally more marked than post-nominal (head-initial) forms (cf. Koch (2006) for Thompson).

**Figure 6.5:** Head-final (a.k.a. ‘pre-posed’) Relative Clause



‘The man who saw me.’

Head-initial (6.4, cf. 72b below) and head-final (6.5, cf. 71b) relative clauses may be referred to respectively as *post-nominal*, and *pre-posed* relatives following Davis (2002, 2004, 2010a), who develops a typology of Salish relative clauses based not only on relative head-modifier ordering, but also on whether or not a particle introduces both the head and modifier. Two other types of relatives in Davis’ typology, *pre-nominal* (71a) and *post-posed* (72a) relatives are ungrammatical in Okanagan (cf. 39-40).<sup>36</sup>

- (71) a. \*way’ ʔit-ən                      iʔ    p̓yq-nt-is                      qáqx^wəlx.  
           yes    eat-[DIR]-1SG.ERG    DET    cook-DIR-3SG.ERG    fish  
           Yes, I ate the fish that he cooked.

- b. way’ ʔit-ən                      iʔ    p̓yq-nt-is                      iʔ    qáqx^wəlx.  
           yes    eat-[DIR]-1SG.ERG    DET    cook-DIR-3SG.ERG    DET    fish  
           Yes, I ate the fish that he cooked.

<sup>36</sup>Straits Salish (Montler, 1993) and Lillooet (Davis, 2010a) contrast with Okanagan since both allow these types of relatives. Davis (2010a) claims that relatives in Lillooet are all derived from a common pre-nominal structure. Okanagan, like Thompson, has marked pre-posed relatives, and so Davis’s analysis would require first extraposition, and then pre-posing.

- (72) a. \*way' ʔiɬ-ən                      iʔ    qáqx<sup>w</sup>əlx    p'ýq-nt-is.  
           yes    eat-[DIR]-1SG.ERG    DET    fish                      cook-DIR-3SG.ERG  
           Yes, I ate the fish that he cooked.
- b. way' ʔiɬ-ən                      iʔ    qáqx<sup>w</sup>əlx    iʔ    p'ýq-nt-is.  
           yes    eat-[DIR]-1SG.ERG    DET    fish                      DET    cook-DIR-3SG.ERG  
           Yes, I ate the fish that he cooked.

The following table compares relativization possibilities in Okanagan with three other Interior Salish languages, in light of Davis' typology.<sup>37</sup> 'D1' and 'D2' refer to the linear order of determiners.

**Table 6.3:** Relativization Strategies in Four Interior Salish Languages

|                 | Pre-<br>nominal<br>[D1[clause<br>NP]] | Post-<br>posed<br>[D1[NP<br>clause]] | Post-<br>nominal<br>[D1[NP[D2<br>clause]]] | Pre-<br>posed<br>[D1    clause<br>D2 NP] |
|-----------------|---------------------------------------|--------------------------------------|--|--|
| Lillooet        | ✓                                     | ✓                                    | ✓  | *  |
| Thompson        | *                                     | *                                    | ✓  | ✓  |
| Moses-Columbian | ✓                                     | ✓                                    | (✓)  | *  |
| Okanagan        | *                                     | *                                    | ✓  | ✓  |

I assume that headless relatives in Okanagan (cf. 57) are a sub-type of post-nominal relative clause, where one of the determiners deletes as a result of a double-determiner filter, formulated by Davis (2010a, 22) as consisting of two parts (73). I give the structure of the headless relative in (57) as Figure 6.6, where a determiner containing a head NP is phonologically adjacent to a determiner which heads the moved DP, and so deletes.

(73) a. *Double Determiner Filter*

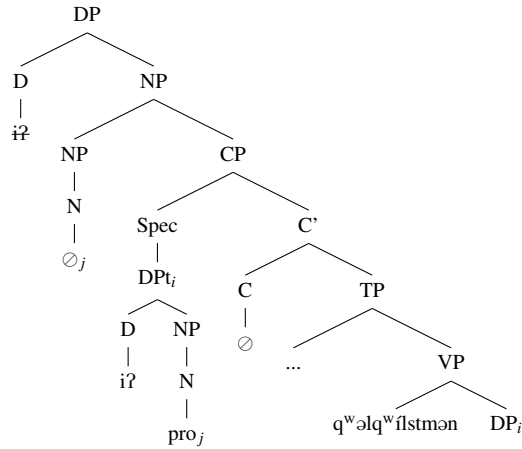
\*[D<sub>1</sub>...D<sub>2</sub>] where no lexical head intervenes between D<sub>1</sub> and D<sub>2</sub>

<sup>37</sup>In Moses-Columbian, post-nominal relatives are possible (N. Mattina 2006, 124), but the oblique marker is becoming optional there (Willett, 2003, 109).

b. *Determiner Deletion*

Delete one of two phonologically adjacent determiners.

**Figure 6.6:** Headless Relative Clause



‘the thing I am telling you.’

A few short comments on the markedness of pre-posed relatives are in order here. Pre-posed relatives involving passive agent extractions are generally marginal to ungrammatical (74a). There are examples of pre-posed locative relatives volunteered during elicitation sessions, as in (74b) below, however these are commonly judged ungrammatical when presented to a speaker.

- (74) a. \*Mike wik-s i? t cúm-q̣s-nt-əm i?  
 Mike see-[DIR]-3SG.ERG DET OBL suck-nose-DIR-PASS DET  
 tkłmilx<sup>w</sup>.  
 woman  
 Mike saw the woman he was kissed by.

- b. *iʔ tɫ k<sup>w</sup>u cun-[n]t-x<sup>w</sup> iʔ sən-tw-mís[t]-tən,*  
 DET LOC 1SG.ABS say-DIR-2SG.ERG DET LOC-sell-INTR.REFLEX-INSTR  
*itlɪʔ axáʔ kn n-ʔíys-əm.*  
 DEM DEM 1SG.ABS n-buy-MID

From the store you told me about, that is where I bought this.

The fact that data like (74a,b) are marginal to ungrammatical can be explained by the resulting linear clash between the selectional restrictions of the main clause predicate, and the particle(s) that immediately follows the predicate. For example, although the transitive predicate in (74a) selects for an object introduced by *iʔ*, it does not select for an object introduced by *iʔ t*. Interestingly, left-dislocating the entire DP argument containing a pre-posed relative may circumvent this constraint (74b), but more work needs to be done here.

#### 6.3.4 Problems with Extending the Movement Account

Extending the movement account as discussed in this chapter to all Okanagan relatives encounters several problems, two of which are as follows.

First, the distribution of *t* before a clause does not always code the relation of the gap to the relative clause predicate: Upper Nicola relative clauses inflected with *ks-* future may be preceded by *iʔ* and *t*, but a main clause argument of such a predicate may not be (Lyon, 2011). To illustrate, a possessor intransitive like *ksyaʔyáʔǰaʔsəlɬ* ‘they will look at it’ selects for a core, *iʔ* DP object, as in (75a), and the oblique marker is not possible here. Nevertheless, an oblique marker optionally surfaces for a relativized argument of a predicate inflected with future *ks-*, as in (75b). Because the sequence *iʔ t* does not reflect the selectional properties of the relative clause predicate, it is unclear how the movement account argued for in this chapter applies to data like (75b).<sup>38</sup>

- (75) a. *ks-yaʔ-yáʔǰaʔsəlɬ iʔ (\*t) pwmín*  
 FUT-show-[DIR]-3PL.POSS DET (\*OBL) drum  
 They will show a drum.

<sup>38</sup>Lyon (2011) analyzes this occurrence of *t* as a remnant of an earlier relativization strategy.

- b. k<sup>w</sup>úl-ən                      iʔ      yámχ<sup>w</sup>aʔ                      iʔ      (t)  
 make-[DIR]-1SG.ERG    DET   cedar.bark.basket    DET   OBL  
 ks-yaʔ-yáʔχaʔ-səlχ.  
 FUT-IRED-show-3PL.POSS  
 I made a basket that they will show.

Second, extractions of benefactive themes (76b) involve a relative clause predicate introduced by *iʔ*, rather than *t*, which is unexpected given that benefactive themes are introduced by *t* in main clause contexts (76a) (cf. Davis and Matthewson (2003) and Gerds and Kiyosawa (2010, 47-50) who note that ‘oblique’ objects are able to extract directly in *-xit* marked applicative predicates in Lillooet.)

- (76) a. x<sup>w</sup>ič'-xt-m-n                      t      qáqx<sup>w</sup>əlχ.  
 give-BEN-2SG.ACC-1SG.ERG    OBL   fish  
 I gave you a fish.  
 b. k<sup>w</sup>in-t      iʔ      qáqx<sup>w</sup>əlχ    iʔ      x<sup>w</sup>ič'-xt-m-n.  
 take-DIR    DET   fish                      DET   give-BEN-2SG.ACC-1SG.ERG  
 Take the fish that I'm giving you.

The crucial point, however, is that Okanagan locative and passive-agent relative clauses show evidence for A' movement, similarly to Thompson and Lillooet relatives, and that core-argument extractions are also consistent with the movement analysis. Other cases of relativization such as (75-76) may ultimately be explainable within this basic theory, with additional modifications.

## 6.4 Summary

This chapter has presented data relating to two types of nominal modification in Okanagan: attributive and relative clause modification. I have claimed that nominal modification, broadly speaking, can be distinguished from clausal subordination by the distribution of particles. The determiner *iʔ* and oblique marker *t* are not used as clausal subordinators, but are used in structures involving nominal modification. Next, attributive modification can be distinguished from a relative clause by the following:

- (i) Attributive modification is strictly head final, relative clause modification may either be head initial or head final.
- (ii) A nominal head must be introduced by *t* in an attributive structure, but may also be introduced by *iʔ* in a relative clause structure.
- (iii) Attributive modifiers must be non-eventive, stage or individual-level unaccusative predicates. An eventive predicate can only modify a nominal through a relative clause structure.

I have shown that a subset of Okanagan relative clauses show evidence for a clause internal, A' movement of a DP or PP to the left periphery of an embedded CP (Koch, 2006; Davis, 2010a). The movement account of relative clause formation outlined in this chapter will be of particular importance during the discussion of cleft clauses in later chapters.

## 6.5 Chapter Addendum: Notes on the ‘Matching Effect’

This addendum consists of a technical discussion of the patterns which *iʔ* and *t* display in their nominal modification roles. Specifically, I discuss the ‘matching effect’ seen with Okanagan relative clauses in more detail, as well as problematic patterns in need of further work.

There are six possible surface patterns involving determiner *iʔ* and oblique marker *t* in their capacity of introducing heads and modifiers in nominal modification structures. These six patterns are displayed in Table 6.4. Each pattern is indicative of either attributive modification (‘attr’), relative clause modification (‘rel’) or in at least one case, ambiguously both.



**Table 6.4:** Surface Patterns Displayed by Head/Modifier Introductory Particles in Okanagan Sentences Involving Nominal Modification

| Pattern | head-initial |                |                 | head-final |                 |                |
|---------|--------------|----------------|-----------------|------------|-----------------|----------------|
|         |              | before nominal | before modifier |            | before modifier | before nominal |
| 1       | ?            | i?             | t               | attr       | i?              | t              |
| 2       | rel          | i?             | i?              | rel        | i?              | i?             |
| 3       | rel          | t              | t               | rel/attr   | t               | t              |
| 4       | rel          | i?             | i? t            | rel(*)     | i? t            | i?             |
| 5       | rel          | t              | i? t            | rel(*)     | i? t            | i?             |
| 6       | *            | t              | i?              | *          | t               | i?             |

Not all logically possible patternings of *i?* and *t* are grammatical, as shown for pattern 6 in the above table, showing that there is a ‘matching effect’ in Okanagan relative clause modifications (patterns 2-5) whereby the particle that introduces the head NP must also introduce the modifier, regardless of whether any additional particles may or may not introduce the modifier. There is no matching effect for pattern 1, which may be exclusively characteristic of attributive modification, although the status of head-initial pattern 1 modifications is unclear. The implication is that a matching effect is diagnostic of a clausal modifier, given that only non-clausal, non-eventive modifiers can occur as modifiers with attributive pattern 1 modifications.

The movement account successfully captures patterns 2 and 4-5, with the exception of those cases where *i? t* does not code a passive agent (cf. 75 above). Given that the relative clause-introducing particle(s) must match the selectional restrictions of the clausal predicate, the matching effect may be roughly characterized as a requirement that the head of the relative clause be introduced by (at least one of) the particles which introduce the relative clause. There is then the additional requirement that the main clause predicate be able to select for the relative clause head. For extracted ditransitive themes (cf. 76) above, however, the matching effect appears to stem from a requirement that the clause-introducing particle

match the head-introducing particle, as determined by the selectional properties of the main clause predicate. The ‘direction’ of the matching effect thus seems to be variable, depending on the type of clausal modification.

The ungrammaticality of head-final patterns 4 and 5 seems to be due to a linear requirement that the particle(s) directly following an initial main clause predicate also match that predicate’s selectional restrictions. In sum, there are three factors involved in these matching effects:

- a. The selectional properties of the relative clause predicate.
- b. The selectional properties of the main clause predicate.
- c. A linear adjacency requirement between the main clause-predicate and the particles which immediately follow, such that the particles be consistent with the main clause-predicate’s selectional restriction.

The status of pattern 3 remains unclear. While head-final pattern 3 modifications involving non-eventive modifiers are straightforwardly analyzable as attributive modifications, it is less clear what the status of head-initial pattern 3 non-eventive modifications is (cf. also head-initial pattern 1). For pattern 3 head-initial clausal modifications, the ‘direction’ of the matching effect is similar to that seen with ditransitive theme extractions, i.e. the *t* introducing the clause usually matches the selectional properties of a main-clause intransitive predicate, rather than the selectional properties of the relative clause predicate (and quasi-objects are generally not extractable). Furthermore, an optional pre-modifier determiner *i?* sometimes surfaces for head-initial pattern 3, yielding head-initial pattern 5. As such, evidence for clause-internal movement is not forthcoming for pattern 3.

Further work is required in elucidating and explaining the patterns shown in Table 6.4, but I hope that this chapter has made a significant contribution to our understanding of nominal modification in Okanagan.

## Chapter 7

# Direct Predications and DP-DP Structures: Syntax, Semantics, and Information Structure

### 7.1 Introduction

At this point, all of the necessary analytical ingredients are in place for addressing the central question of this dissertation: namely, what is the structure and interpretation of DP-DP structures, and how do they differ from direct predications? Direct predications consist minimally of a lexical predicate (an NP, AP, or PP) and a DP argument, as in (1a). DP-DP structures consist of two DPs, as in (1b).

- (1) a. [ixíʔ<sub>DP</sub>] [yámǰ<sup>w</sup>aʔ<sub>NP</sub>] .

DEM cedar.bark.basket

That is a basket.

**Direct predication**

- b. [ixíʔ<sub>DP</sub>] [iʔ yámǰ<sup>w</sup>aʔ<sub>DP</sub>] .

DEM DET cedar.bark.basket

That is a/the basket.

**DP-DP structure**

### 7.1.1 Main Claims of this Chapter

The main claims of this chapter are as follows:

- a. Okanagan DP-DP structures are syntactically and information-structurally distinct from direct predications.
- b. Okanagan DP-DP structures are semantically equative structures (Heycock and Kroch, 1999), given that neither DP can be a predicate (Longobardi, 1994; Matthewson, 1998).
- c. Okanagan DP-DP structures involve a null, equative copula, while direct predications do not involve any copula.
- d. The maximality implicature carried by the determiner *i?* (cf. chapter 5) derives an implicature of exhaustivity (Davis et al., 2004) for DP-DP structures.
- e. Okanagan DP-DP structures display a fixed information structure. The initial, referential DP in an Okanagan DP-DP structure is always in focus (Rooth, 1992).
- f. Specificational DP-DP structures are not possible in Okanagan. This receives an explanation whereby:
  - (i) there is a ban on predicate raising (a.k.a. ‘syntactic inversion’) (Moro, 1997; den Dikken, 2006).
  - (ii) the equational head selects only intensional ( $\langle s, e \rangle$ ) (Romero, 2005; Comorovski, 2007) *i?* DPs as a complement, not directly referential DPs.
  - (iii) the equational head assigns a feature ‘F’ (i.e. focus) to its second argument (i.e. the DP in specifier position).
  - (iv) information-structural alignment constraints force the focus to occur left-most (Koch, 2008a).
- g. Identificational sentences may be reduced to the predication class in some cases (cf. Heller (2005) for English and Hebrew), and to the equative class in other cases.

- h. Apparent cases of syntactic inversion involving DP-DP structures may be analyzed either as identificational predications, or as involving topicalization of the second, *i?* DP in a DP-DP structure. These apparent cases of inversion are possible within a running discourse, but not in answer to a WH-question.
- i. Since specificationals do not exist, Higgins' taxonomy may be reduced to two types for Okanagan (cf. item g): predication and equative (cf. Heller (2005) for English and Hebrew).

### 7.1.2 Chapter Outline

This chapter is summarized as follows.

First, I discuss direct predications (7.2, cf. 1a). These are interpretively equivalent to either *predicational* or *identificational* copular clauses in English (Higgins, 1973, 1979), depending on the context in which they are used, and whether or not a demonstrative functions as the subject (7.2.1). There is a syntactic ban on predicate raising (a.k.a. 'inversion') for direct predications (7.2.2), though there is relatively unconstrained word ordering of subject and predicate. I take this as evidence that there is no null copula for direct predications. This means that lexical projections may be inherently predicative (Davis (1999a) for Salish and Stowell (1981), contra Baker (1996) and Adger and Ramchand (2003)), and makes possible an analysis of direct predications as bare small clauses (7.2.4).

Next, I discuss DP-DP structures (7.3, cf. 1b). Though they are structurally distinct from direct predications, the interpretation of DP-DP structures overlaps with that of both predication and equative clauses in English (Higgins, 1973) (7.3.1). This interpretive variability is made possible by the fact that the *i?* determiner allows both maximal and non-maximal interpretations (cf. chapter 5). In answer to a WH-question, DP-DP structures require the more-referential DP to occur initially, unlike the case for direct predications, where subjects routinely occur finally in these contexts.<sup>1</sup> Like direct predications, DP-DP structures do not allow predicate

---

<sup>1</sup>There is an analogy to be made between the more-referential DP in a DP-DP structure and the subject of a direct predication, especially in cases where DP-DP structures and direct predications are interpretively equivalent. Nevertheless, I refrain from calling the more-referential DP in a DP-DP

raising (7.3.2). For independent reasons, it is not possible to test for connectivity effects in Okanagan DP-DP structures (7.3.3). I claim that DP-DP structures are structurally asymmetrical projections of an equative head (Heycock and Kroch, 1999), which is compositionally required by the fact that neither DP can function as a syntactic predicate. The equative head in effect licenses the second DP as a syntactic predicate (7.3.4).

I then discuss information structural and pragmatic properties of DP-DP structures which set them apart from direct predications (7.4). Direct predications do not imply exhaustivity, whereas DP-DP structures carry an exhaustivity implicature (7.4.1). In addition to the exhaustivity implicature, DP-DP structures share two other properties with Okanagan clefts (discussed in chapter 8): DP-DP structures do not carry any presupposition of existence (7.4.2), and the more-referential DP in focus must always occur to the left. These parallels provide support for my argument that DP-DP structures and clefts both derive from an underlying equative configuration. The ban against focus-final DP-DP structures essentially means that the analogue to specificational copular clauses in English is not possible in Okanagan (7.4.3). This suggests that the equative head is sensitive to the *type* of DP which it selects for, especially given the structurally independent ban on syntactic inversion in Okanagan (7.5). I argue for an intensionality-based semantic asymmetry in DP-DP structures (Romero, 2005; Comorovski, 2007; Heycock, 2012).

I then present my semantic analysis of the equative head (7.5). The equative head selects for an intensional DP (Romero, 2005; Comorovski, 2007), and maps the intension of the individual to its extension. It also assigns a feature ‘F’ to its second argument (i.e. the extensional DP in specifier position), which is interpreted by the pragmatics as focused (Rooth, 1992). In other words, all of the contextually relevant alternatives to the referent of the specifier DP in an equative structure are invoked (cf. section 2.3.1). An information-structural alignment constraint forces the focus to occur left-most (Koch, 2008a). The exhaustivity implicature carried by an equative sentence is derived from the maximality implicature introduced by the determiner *i?*: since non-coreference between two identical occurrences of *i?* DPs is independently possible, though not preferred (cf. chapter 5), an exhaustive reading of an equative holds only if the maximality implicature carried by structure a ‘subject’.

the *i?* DP is not cancelled. This analysis successfully explains the availability of ‘pseudo-predicational’ readings in DP-DP equatives, by which I mean that DP-DP equatives are in certain cases interpretively indistinguishable from corresponding direct predications.

Next (7.6.1), I discuss data which seem to correspond to Higgins’ identificational class of copular clauses, and suggest that these might be reduced to a predicational class (Heller, 2005). These sentence-types involve demonstrative or demonstrative-associated DPs as subjects, and proper names as predicates, although predications involving two proper names pattern similarly. The predicative status of proper names in these cases is supported by the relatively free ordering of demonstrative and proper name, but also receives independent morpho-syntactic support: proper names may function as hosts to absolutive subject proclitics, like other predicates, and can in certain contexts be complements to an *i?* determiner (cf. section 4.6.2). In contrast, proper names *cannot* be predicates within an equative structure, a fact that may be attributed to the requirement that the equative head select for an intensional DP.

Next (7.7), I discuss several examples of problematic ‘inversion’ data, which do not follow from the arguments made so far in this chapter. At first glance, they seem to be cases of specificational sentences; however importantly, they are not possible as answers to WH-questions. I weigh two possible analyses of these cases, as either identificational sentences with null demonstratives, or as equatives involving topicalization of the second DP.

In closing, I summarize and discuss implications related to extending Higgins’ taxonomy to Okanagan (7.8).

## 7.2 Direct Predication

This section introduces further examples of Okanagan direct predications (cf 1a). I introduce some basic direct predication data and show that neither syntactic embeddedness nor prosodic heaviness affect the basic generalization that the subject and predicate can occur in either order. Next, I show that predicate-initial direct predications cannot be derived by predicate raising, which in conjunction with contrasting DP-DP structure data, I take to be evidence that direct predications are bare

small clauses and do not involve any copula or functional head serving as an intermediary between the subject and predicate. Finally, I summarize the data and analysis.

### 7.2.1 Direct Predications and Word Order

Okanagan makes extensive use of non-verbal predication (A. Mattina and DeSautel 2002), but does not have an overt copula (A. Mattina 2001). Examples of nominal predications are shown in (2), where the nominal *pínaʔ* ‘birch bark basket’ functions as a predicate, and the demonstrative *axáʔ* ‘this’ functions as the argument. An adjectival predication is shown in (3), where *ʔʕatʔ* ‘wet’ functions as the predicate, and the proper name *Ivan* as the argument. The linear order of subject and predicate is free with Okanagan direct predications (N. Mattina 1996b, 33-34).

- (2) a. *axáʔ pínaʔ.*  
 DEM birch.bark.basket  
 This is a basket.
- b. *pínaʔ axáʔ.*  
 birch.bark.basket DEM  
 This is a basket. (A. Mattina 2001, fn11)
- (3) a. *Ivan ʔʕatʔ.*  
 Ivan wet  
 Ivan is wet.
- b. *ʔʕatʔ Ivan.*  
 wet Ivan  
 Ivan is wet.

As mentioned in the introduction, I refer to examples like (2-3) as *direct predications*. In terms of Higgins’ taxonomy, the nominal predications in (2) may be either identificational or predicational.

An example of an identificational interpretation of a direct predication is given in (4). In response to (4a), for example, a speaker may answer with either subject-initial (4b) or subject-final (4c). Here, the speaker may be teaching the questioner



the name by which the referent may be called, in which case the interpretation is identificational (cf. section 2.1.2). Alternatively, the speaker may be identifying an individual, denoted by the demonstrative, as belonging to the set of rabbits, in which case the interpretation is predicational (cf. section 2.1.2).

- (4) a. *stim' ixíʔ?*  
           what DEM  
           What is that?
- b. *ixíʔ spəplínaʔ.*  
           DEM rabbit  
           That's a rabbit.
- c. *spəplínaʔ ixíʔ.*  
           rabbit DEM  
           That's a rabbit.

Another example of a predicational interpretation of a direct predication is given below as (5). In response to (5a), a speaker may answer with either subject-initial (5b) or subject-final (5c). Here, the speaker is identifying John as belonging to the set of carpenters.

- (5) a. *stim' John iʔ s-c-k'wúl-sʔ*  
           what John DET NOM-CUST-make-3SG.POSS  
           What does John do (for work)?
- b. *John səx<sup>w</sup>-k'wúl-ʔx<sup>w</sup>-əm.*  
           John OCC-make-house-MID  
           John is a carpenter.
- c. *səx<sup>w</sup>-k'wúl-ʔx<sup>w</sup>-əm John.*  
           OCC-make-house-MID John  
           John is a carpenter.

A slightly more complex example is given below in (6). Here, the argument DP [*isláxt iʔ sck'wíns DP*], literally 'my friend's taking', contains a possessor and a

nominalized headless relative clause.<sup>2</sup>

(6) Context: Your friend went shopping, you ask what they got.

- a. *stim' [iʔ] a[n]-sláxt iʔ s-c-kʷín-s?*  
 what DET 2SG.POSS-friend DET NOM-CUST-take-3SG.POSS  
 What did your friend get?
- b. *sənkʰcaʔsqáxaʔ [iʔ] [i[n]-sláxt iʔ s-c-kʷín-s DP].*  
 horse DET 1SG.POSS-friend DET NOM-CUST-take-3SG.POSS  
 My friend got a horse.  
 Literally: The thing my friend got is a horse.
- c. *[iʔ] [i[n]-sláxt iʔ s-c-kʷín-s DP]*  
 DET 1SG.POSS-friend DET NOM-CUST-take-3SG.POSS  
*sənkʰcaʔsqáxaʔ.*  
 horse  
 My friend got a horse.  
 Literally: The thing my friend got is a horse.

Subject-initial and predicate-initial versions appear to be semantically and pragmatically equivalent. Under the assumption that a diagnostic for focus is the answer to a WH-question (Jackendoff, 1972; Selkirk, 1995), and that Okanagan is similar to neighboring Thompson River Salish (Koch, 2008a) in terms of aligning focus to prosodic edges, this means that focus alignment constraints do not apply to direct predication. I will have more to say on this issue in section 7.4.

The data shown below as (7-8) show that verbal intransitives, as well as prepositional phrases, have distributions identical to the nominal and adjectival predicates in (2-3).<sup>3</sup>

<sup>2</sup>In Okanagan, both possessor and possessum are introduced by *iʔ* determiners. Matthewson and Davis (1995, 19) analyze possessive structures in Lillooet as consisting of a possessed DP, whose head noun is adjoined by the possessor DP. Cases where the possessor precedes the possessum, as in (6) involve possessor scrambling in Lillooet.

<sup>3</sup>I make no claims here about the structure of verbal predication, since it is likely that additional aspectual projections are involved in these cases.

- (7) a. John [čq<sup>w</sup>-aq<sup>w</sup><sub>VP</sub>].  
 John cry-RED  
 John cried.
- b. John [ʔayχ<sup>w</sup>t<sub>AP</sub>].  
 John tired  
 John is tired.
- c. iʔ s-q<sup>w</sup>siʔ-s [kl Merritt<sub>PP</sub>].  
 DET NOM-son-3SG.POSS LOC Merritt  
 His son is in Merritt.
- d. ixíʔ [yámχ<sup>w</sup>aʔ<sub>NP</sub>].  
 DEM cedar.bark.basket  
 That is a basket.
- e. iʔ ʔəχ-ʔəχáp [q<sup>w</sup>ʔay-lq<sub>sNP</sub>].  
 DET RED-grown black-robe  
 The old man is a priest.
- (8) a. [čq<sup>w</sup>-aq<sup>w</sup><sub>VP</sub>] John.  
 cry-RED John  
 John cried.
- b. [ʔayχ<sup>w</sup>t<sub>AP</sub>] John.  
 tired John  
 John is tired.
- c. [kl Merritt<sub>PP</sub>] iʔ s-q<sup>w</sup>siʔ-s.  
 LOC Merritt DET NOM-son-3SG.POSS  
 His son is in Merritt.
- d. [yámχ<sup>w</sup>aʔ<sub>NP</sub>] ixíʔ.  
 cedar.bark.basket DEM  
 That is a basket.
- e. [q<sup>w</sup>ʔay-lq<sub>sNP</sub>] iʔ ʔəχ-ʔəχáp.  
 black-robe DET RED-grown  
 The old man is a priest.

For Okanagan, both main (9) and subordinated clause (10) direct predications allow variable subject-predicate word ordering:<sup>4,5</sup>

- (9) a. [Sarah<sub>Subj</sub> məq'-ínk<sub>Pred</sub>].  
       Sarah        full-stomach  
       Sarah is full.
- b. [məq'-ínk<sub>Pred</sub> Sarah<sub>Subj</sub>].  
       full-stomach Sarah  
       Sarah is full.
- c. [Mary<sub>Subj</sub> ʃə-ʃásaʔt<sub>Pred</sub>].  
       Mary        RED-pretty  
       Mary is pretty.
- d. [ʃə-ʃásaʔt<sub>Pred</sub> Mary<sub>Subj</sub>].  
       RED-pretty    Mary  
       Mary is pretty.
- (10) a. kn        limt ∅        [Sarah<sub>Subj</sub> məq'-ínk<sub>Pred</sub>].  
       1SG.ABS glad [COMP] Sarah        full-stomach  
       I'm glad Sarah is full.
- b. kn        limt ∅        [məq'-ínk<sub>Pred</sub> Sarah<sub>Subj</sub>].  
       1SG.ABS glad [COMP] full-stomach Sarah  
       I'm glad Sarah is full.
- c. talíʔ kn        n-stils ∅        [Mary<sub>Subj</sub> ʃə-ʃásaʔt<sub>Pred</sub>].  
       very 1SG.ABS n-think [COMP] Mary        RED-pretty  
       I think Mary is really pretty.

<sup>4</sup>Complementizers are largely optional in Okanagan (cf. Kroeber (1999) and discussion in section 6.1.2), and so it is often difficult to tell whether a small clause is a CP constituent, or a direct complement of main clause verb. Just as in English, however, the absence of an overt complementizer does not necessarily mean that a functional CP structure is not present.

<sup>5</sup>The *Subj* 'subject' and *Pred* 'predicate' labels in examples (9-14) are for expository purposes only.

- d. talíʔ kn n-stils  $\bigcirc$  [ǰə-ǰásaʔt *Pred* Mary *Subj*].  
 very 1SG.ABS n-think [COMP] RED-pretty Mary  
 I think Mary is really pretty.

Finally, prosodic heaviness of a subject or predicate constituent does not determine its surface position in a direct predication. The data in (11-12) show that a prosodically heavier predicate may either follow or precede a relatively lighter subject<sup>6</sup>, and (13-14) show that a prosodically heavier subject may either follow or precede a relatively lighter predicate.<sup>7,8</sup>

- (11) a. [iʔ ylmíx<sup>wə</sup>m *Subj*] [ǰast t sqəltmíx<sup>w</sup> *Pred*].  
 DET chief good ATTR man  
 The chief is a good man.
- b. [ǰast t sqəltmíx<sup>w</sup> *Pred*] [iʔ ylmíx<sup>wə</sup>m *Subj*].  
 good ATTR man DET chief  
 The chief is a good man.
- (12) a. [ixíʔ<sub>Subj</sub>] [písǰʔ-áxn t ylmíx<sup>wə</sup>m *Pred*].  
 DEM broad-shouldered ATTR chief  
 That's a broad-shouldered chief.
- b. [písǰʔ-áxn t ylmíx<sup>wə</sup>m *Pred*] [ixíʔ<sub>Subj</sub>].  
 broad-shouldered ATTR chief DEM  
 That's a broad-shouldered chief.

<sup>6</sup>The predicates in (11-12) are Complex Nominal Predicates, or in other words, attributively modified NPs, which are themselves categorially NP predicates (cf. section 6.2).

<sup>7</sup>The structure in (13) is a focus structure referred to as a Nominal Predicate Construction (NPC) in Davis et al. (2004) and as a 'bare' cleft in (Kroeger, 1999). The predicate nominal is in focus in these cases, though no focus-movement is involved.

<sup>8</sup>The variable ordering of subject and predicate in direct predication seems reminiscent of the predication/specificational alternation seen in English. Unlike English specificational sentences, however, Okanagan direct predication simply ascribe a property to the subject DP. Predicates in Okanagan direct predication are not DPs, and so a specificational analysis of direct predication is not possible in any case.

- (13) a. [syx<sup>w</sup>áp-məx *Pred*] [iʔ ʔəx-ʔəxáp iʔ q<sup>w</sup>əl-q<sup>w</sup>íl-st-ən *Subj*].  
 Shuswap-person DET RED-grown DET RED-speak-CAUS-1SG.ERG  
 The old men that I talked to were Shuswaps.  
 (adapted from Davis et al. (2004))
- b. [iʔ ʔəx-ʔəxáp aʔ c-q<sup>w</sup>əl-q<sup>w</sup>íl-st-ən *Subj*]  
 DET RED-grown DET CUST-RED-speak-CAUS-1SG.ERG  
 [syx<sup>w</sup>áp-məx-əlx *Pred*].  
 Shuswap-person-3PL.ABS  
 The old men that I talked to were Shuswaps.
- (14) a. [səx<sup>w</sup>-knxt-ʔtíʔn *Pred*] [ixíʔ iʔ tkʔmilx<sup>w</sup> *Subj*].  
 OCC-help-person DEM DET woman  
 That woman is a helper.
- b. [ixíʔ iʔ tkʔmilx<sup>w</sup> *Subj*] [səx<sup>w</sup>-knxt-ʔtíʔn *Pred*].  
 DEM DET woman OCC-help-person  
 That woman is a helper.

I now provide some data which show that predicate-initial ordering of direct predications is not derived by predicate raising. These data are relevant because both direct predications and DP-DP structures, where the second DP is a syntactically licensed predicate, disallow predicate raising. As such, a ban on syntactic inversion can be understood as a more general property of Okanagan grammar.

### 7.2.2 Direct Predications and the Ban on Predicate Raising

In this section, I take a look at direct predications in the context of various functional particles, which I assume correspond to functional heads in the syntax (Cinque, 1999), and show that the predicate-initial ordering is not derived by predicate raising (Moro, 1997).

Pre-predicative particles encoding tense, modality, discourse deixis, and other functions commonly introduce Okanagan sentences, including those containing direct predications. These particles have traditionally been analyzed as clitics in the Salish literature (Kroeber, 1999). In Okanagan, they attach to the left periphery of

the predicate complex. Since these particles may be analyzed as operators that apply at the propositional level, it is reasonable to assume that they occupy positions higher than the propositional core. Such particles include:

- (15) a. *cmay*- epistemic modal  
 b. *mat*- epistemic modal<sup>9</sup>  
 c. *cak<sup>w</sup>*- bouletic modal  
 d. *ha*- question marker  
 e. *ǰəm*- past tense  
 f. *mi*- future

For the subject-initial (a) and predicate-initial (b) examples in (16-19) below, the pre-predicative particles precede the direct predication. The crucial facts to notice here are that the subject DP can occur before the introductory particle, as shown by the (c) cases, but the predicate *cannot*, as shown by the (d) cases.

- (16) a. **cmay** John [c'q<sup>w</sup>-aq<sup>w</sup> <sub>VP</sub>].  
 EPIS John cry-RED  
 John might cry.  
 b. **cmay** [c'q<sup>w</sup>aq<sup>w</sup> <sub>VP</sub>] John.  
 c. John **cmay** [c'q<sup>w</sup>áq<sup>w</sup> <sub>VP</sub>].  
 d. \*[c'q<sup>w</sup>áq<sup>w</sup> <sub>VP</sub>] **cmay** John.
- (17) a. **cak<sup>w</sup>** [sysyus <sub>AP</sub>] iʔ səx<sup>w</sup>-píǰ-əm.  
 BOUL active DET OCC-hunt-MID  
 A/The hunter should be active.  
 b. **cak<sup>w</sup>** iʔ səx<sup>w</sup>píǰəm [siysiyús <sub>AP</sub>].  
 c. iʔ səǰ<sup>w</sup>píǰəm **cak<sup>w</sup>** [siysiyús <sub>AP</sub>].  
 d. \*[siysiyús <sub>AP</sub>] **cak<sup>w</sup>** iʔ səx<sup>w</sup>píǰəm.

---

<sup>9</sup>See Menzies (2012) for a semantic analysis of the Okanagan modal system.

- (18) a. **ha** ixíʔ [yámǰ<sup>w</sup>aʔ<sub>NP</sub>]?  
 YNQ DEM cedar.bark.basket  
 Is that a basket?  
 b. **ha** [yámǰ<sup>w</sup>aʔ<sub>NP</sub>] ixíʔ?  
 c. ixíʔ **ha** [yámǰ<sup>w</sup>aʔ<sub>NP</sub>]?  
 d. \*[yámǰ<sup>w</sup>aʔ<sub>NP</sub>] **ha** ixíʔ?
- (19) a. **ca**<sup>w</sup> Norman [səx<sup>w</sup>-k<sup>w</sup>úl-łx<sup>w</sup>-əm<sub>NP</sub>].  
 BOUL Norman OCC-make-house-MID  
 Norman should be a carpenter.  
 b. **ca**<sup>w</sup> [səx<sup>w</sup>k<sup>w</sup>úlłx<sup>w</sup>əm<sub>NP</sub>] Norman.  
 c. Norman **ca**<sup>w</sup> [səx<sup>w</sup>k<sup>w</sup>úlłx<sup>w</sup>əm<sub>NP</sub>].  
 d. \*[səx<sup>w</sup>k<sup>w</sup>úlłx<sup>w</sup>əm<sub>NP</sub>] **ca**<sup>w</sup> Norman.

Put simply, if the predicate precedes the subject, nothing can intervene between the two. Assuming that particles like those listed in (15) occupy a higher position in the clause than a base-generated subject and predicate, and in view of the ungrammaticality of the (d) cases, it seems clear that the (a,b) cases represent the base forms, and that the (c) cases are derived by raising the subject DP out of its base-generated position.<sup>10</sup>

Gardiner (1993) argues for closely related Shuswap that anything occurring to the left of the clitic string can be analyzed as either a base-generated external topic, or a movement-derived topic-denoting phrase. Assuming that the subjects in the (c) cases above are topicalized, the implication is that subjects but not predicates can undergo topicalization movement.

<sup>10</sup>Subject raising as a syntactic phenomenon may also underlie the variable SVO and VSO word orders displayed in garden-variety transitive sentences. The functional motivation for subject movement, if any, remains unclear, and so for now, I treat it solely as a syntactic phenomenon.



### 7.2.3 (Near) Obligatory Subject-Raising over T

Tense marking is null for both present and past tenses in Okanagan, but I assume that a T projection is nevertheless always present, and I argue in this section that T selects a direct predication as a complement.

At first glance, it appears that a direct predication such as (20) is ambiguous between a present and past tense interpretation, but there are default readings in Salish languages for eventive predicates depending on aspectual class, and a default present tense reading for stative predicates (cf. for example N. Mattina (1996b) for Okanagan, Bar-el (2006) for Squamish).<sup>11</sup> Thus, the default reading for (20) is present tense, *John is a teacher*. Context will almost always disambiguate the tense in such cases (cf Matthewson (2006b) for Lillooet), and in other cases, there is a range of temporal adverbials which serve to disambiguate tense.

- (20) səx<sup>w</sup>-maʔ-máyaʔ-m John.  
 OCC-RED-teach-MID John  
 John is/was a teacher.

For future tense, the morpheme *mi* is sometimes used.<sup>12</sup> It occurs in a position lower than the epistemic modal, as shown by the data in (21) which appear to involve subject raising.

- (21) a. John cmay mi səx<sup>w</sup>-píʔ-əm.  
 John EPIS FUT OCC-hunt-MID  
 John is gonna be a hunter.
- b. cmay John mi səx<sup>w</sup>-píʔ-əm.  
 EPIS John FUT OCC-hunt-MID  
 John is gonna be a hunter.
- c. \*John mi cmay səx<sup>w</sup>-píʔ-əm.  
 John FUT EPIS OCC-hunt-MID  
 John is gonna be a hunter.

<sup>11</sup>See also N. Mattina (1996b, 63-64) for a related discussion of ‘neutral’ aspect in Okanagan.

<sup>12</sup>It is not obligatory for future interpretations. Verbal futures are more often marked as such by a prefix *ks-*, perhaps more accurately described as a ‘prospective aspect’ or a modal. Cf. my analysis of nominal irrealis *kʔ-* in chapter 5.

Subject raising over *mi* appears to be (near) obligatory, as shown in (22) which displays the default pattern. Given that subject raising is *not* obligatory in the context of other pre-predicative particles (see previous section), (22) constitutes evidence that *mi* is in a relatively low position, perhaps T(ense). Assuming that *mi* is a T head, evidence against an argument whereby a direct predication contains a T projection as part of its basic configuration (i.e. as a predication small clause) comes from (22c): given that predicate raising is not a possibility, present and past tense predicate-initial direct predications should *also* be ungrammatical, but they are not. In other words, T can select for a direct predication, and it is probably the case that a direct predication must form a constituent with T at some level, but a predication small clause does not itself contain T. This view of the relation between T(ense) and a predicative small clause fits with generally accepted notions of small clauses in English (cf. section 2.2.2).

- (22) a. John mi səx<sup>w</sup>-məʔ-máyaʔ-m.  
           John FUT OCC-RED-teach-MID  
           John is going to be a teacher.
- b. \*mi səx<sup>w</sup>-məʔ-máyaʔ-m John.  
           FUT OCC-RED-teach-MID John  
           John is going to be a teacher.
- c. \*səx<sup>w</sup>-məʔ-máyaʔ-m mi John.  
           OCC-RED-teach-MID FUT John  
           John is going to be a teacher.
- d. \*mi John səx<sup>w</sup>-məʔ-máyaʔ-m.  
           FUT John OCC-RED-teach-MID  
           John is going to be a teacher.

There are, however, also data that appear to show a subject lower than *mi*, hence subject raising is only ‘near’-obligatory. (23a) shows that an independent pronoun subject can follow *mi*, and (23b) shows an independent pronoun subject preceding *mi*, though an interesting ‘doubling’ of future-marking optionally occurs in these cases.

- (23) a. *mi mnímɬtət k<sup>w</sup>u xiʔt-míst.*  
 FUT 1PL.INDEP 1PL.ABS run.PL-INTR.REFLEX  
 We are going to run.
- b. (mi) *anwí mi k<sup>w</sup> x<sup>w</sup>uy.*  
 FUT 2SG.INDEP FUT 2SG.ABS go  
 Yeah, you go.

Taken together, (22-23) support a view whereby T can select for a direct predication, and subject raising is near-obligatory. The ‘doubling’ effect in (23b) may reflect an optional T-to-C movement of *mi*, with an overt trace left behind, and contexts involving adjunct WH-questions provide independent evidence that *mi* may in fact be a complementizer. The data in (24) show that *mi* is in complementary distribution with the complementizer *kiʔ*, which introduces the residue clause in an adjunct cleft or WH-question. These data show that a raised subject can occupy a position higher than C (perhaps Spec C).

- (24) a. \**lut c-my-st-in kaʔkín kiʔ / mi John x<sup>w</sup>uy.*  
 NEG CUST-know-CAUS-1SG.ERG where COMP / FUT John go  
 I don’t know where John went/will go.
- b. *lut c-my-st-in kaʔkín John kiʔ / mi x<sup>w</sup>uy.*  
 NEG CUST-know-CAUS-1SG.ERG where John COMP / FUT go  
 I don’t know where John went/will go.

A contrast surfaces between non-embedded subject-final direct predications (25a) and embedded subject-final direct predications (25b) in the context of *mi*, such that an embedded subject in final position does not obligatorily raise (compare 25b with 24a,b).

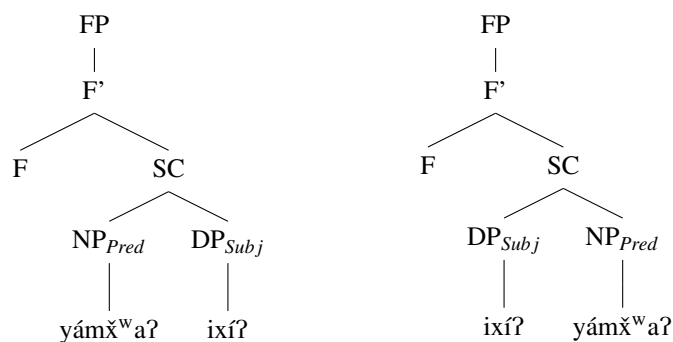
- (25) a. \**mi x<sup>w</sup>uy John.*  
 FUT go John  
 John will go.
- b. *lut c-my-st-in kaʔkín kiʔ / mi x<sup>w</sup>uy John.*  
 NEG CUST-know-CAUS-1SG.ERG where COMP / FUT go John  
 I don’t know where John went/will go.

Speakers indicate that for the grammatical variant of (25a), *John mi x<sup>w</sup>uy*, one is singling out a particular individual, and so it could be considered to be a focus structure, perhaps a kind of cleft. Unraised subjects may be ungrammatical in this environment because the focus position is left empty. In WH-contexts however (25b), the WH-item is presumably in focus, which may license the subject to remain in-situ. The contrast between (24a) and (25b), in particular, still needs explanation, but may provide evidence that the base ordering of an Okanagan direct predication is predicate-initial.

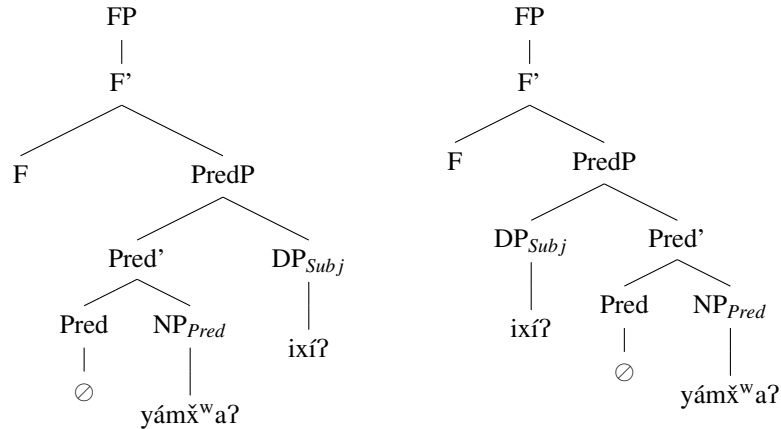
#### 7.2.4 A Structural Analysis of Direct Predication

The ban on predicate-raising, as just discussed, does not itself decide between a structure whereby the predicate and subject DP form a freely ordered small clause constituent to the exclusion of any Pred-head (Figure 7.1 below, where *F* represents one of the pre-predicative particles just discussed), and a structure whereby a null Pred-head selects for a lexical predicate (assuming that rightward subjects are possible) (Figure 7.2 below). I refer to these two possibilities as the *bare small clause* hypothesis and the *Pred-head* hypothesis, respectively.

**Figure 7.1:** Freely Ordered Bare Small Clause Hypothesis



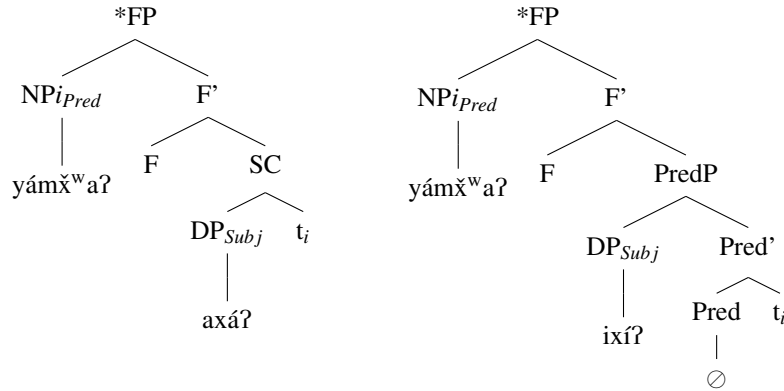
**Figure 7.2:** Null Pred-head Small Clause Hypothesis



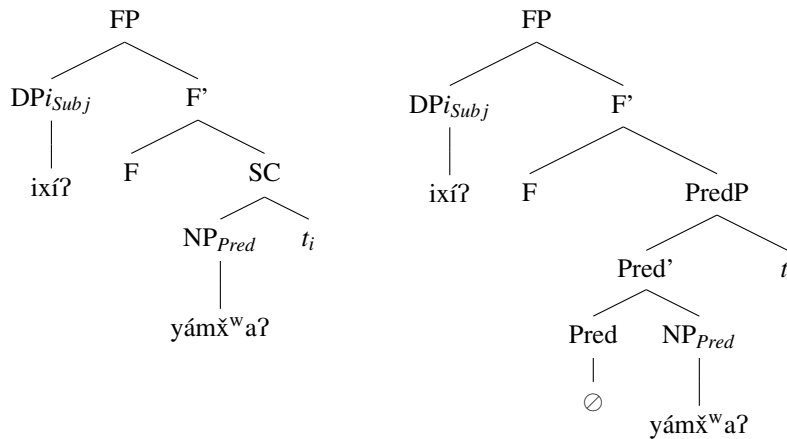
Under the bare small clause hypothesis, direct predications are syntactically symmetrical (i.e. bare) small clauses (Williams, 1975; Stowell, 1981; Moro, 2000), consisting only of a DP subject and a semantically unsaturated XP predicate (Higginbotham, 1985), where  $X \in \{N, P, A, V\}$ . This theory assumes that the lexical categories themselves are predicative (Stowell, 1981), and that the small clause subject is left-adjoined to the small clause predicate (Manzini, 1983; Heggie, 1988). Under the Pred-head analysis (Bowers, 1993; Baker, 2003; den Dikken, 2006), a functional head *Pred* selects for a semantically predicative constituent and a DP argument. The Pred-head is semantically vacuous.

There is good evidence that predicate-initial direct predications are not derived by predicate raising under either analysis (Figure 7.3 below), while subject-raising is permitted under either analysis (Figure 7.4 below).

**Figure 7.3: No Predicate Raising**



**Figure 7.4: Subject Raising**

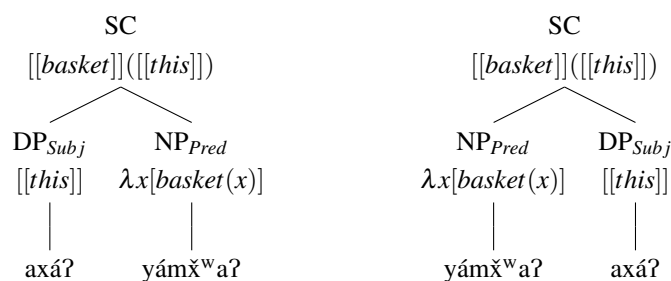


Subject raising as depicted in Figure 7.4 shows a subject raising out of a predicate-initial bare small clause or  $PredP$ . Under either analysis, this would yield a base predicate-initial word order for Okanagan, which would coincide nicely with the basic word order facts of Northern Interior Salish and Central Salish languages (Czaykowska-Higgins and Kinkade, 1998). Subject raising out of a predicate-final bare small clause or  $PredP$  is nevertheless also a possibility.

It is empirically unclear whether the bare small clause or  $PredP$  hypothesis for Okanagan direct predication is correct. Deciding between the two hypotheses may

reduce to arguments for theoretical economy. The bare clause hypothesis is attractive since it straightforwardly reflects the semantic status of direct predications as simple saturation relations, as depicted below in Figure 7.5. On the other hand, for syntactic theories which adopt the thesis of antisymmetry (Kayne, 1994), this hypothesis faces major syntactic problems since if both subject and predicate are maximal projections (Rothstein, 1995) and the subject is adjoined to the predicate (Manzini, 1983; Heggie, 1988), then there will be a violation of antisymmetry.<sup>13</sup>

**Figure 7.5:** Bare Small Clauses As Simple Saturation Relations



The Pred-head hypothesis is more in line with current theories of predication (Heycock and Kroch, 1999; Adger and Ramchand, 2003; Baker, 2003; Mikkelsen, 2005; den Dikken, 2006), whereby all non-verbal categories must be licensed as syntactic predicates via a null functional Pred-head; however, for Okanagan this approach violates Occam’s razor, for two reasons:

- a. The Pred-head in a direct predication must be both semantically empty, as in the formulation  $\lambda P \lambda x. [P(x)]$  (Partee, 1986), and phonologically null.<sup>14</sup>
- b. It requires postulating not one, but two distinct, phonologically null Pred-heads for Okanagan, one for direct predications and one for DP-DP structures, as we shall see.

<sup>13</sup>The structures in Figure 7.5 are not necessarily associated with any c-commanding functional projection, though they can always be embedded within a larger structure.

<sup>14</sup>Assuming that linguistic objects are divided into three types of information: phonological, semantic, and syntactic information, Wiltschko (2005) argues that “at least more than half of the information associated with any given linguistic object” must be fully interpreted, that is, non-explicative. A semantically vacuous, phonologically null copula will be unable to syntactically project under Wiltschko’s framework, hence for Okanagan, the Pred-head analysis is ruled out. Although the Okanagan equative head is phonologically null, it has semantic content.

In any case, nothing crucial hinges on which hypothesis is correct since I will show that direct predications, whatever their base-generated form, are still distinct from DP-DP structures.

### 7.2.5 Summary of Direct Predications

By way of summary, Okanagan predication is clearly different than in English. English NP, AP, and simple indefinite DP predicates cannot precede their subjects in English copular and small clauses. Moro (1997) appeals to a ‘basic directionality’ to explain the word order facts for most English predications: Predicates cannot generally precede subjects because the basic direction of English predication is subject-initial.<sup>15</sup>

In Okanagan, lexical predicates may easily precede their subjects. If predicate-raising is not a possibility in these cases, as I have argued based on data like (16-19) above, it seems that the predicate must occur in its base-generated position. Because a subject may freely occur before or after a lexical predicate, it seems that either direct predications are bare small clauses without any basic directionality, or else there is a null Pred-head linking the predicate to the subject, and that the subject may occur as either a rightward or leftward specifier. Under either analysis, Okanagan direct predications stand in contrast to predication copular clauses in English.

The next section discusses DP-DP structures. I show that a less-referential *i?* DP cannot precede a more-referential DP, even in the absence of any pre-predicative particle. This constitutes a major difference between direct predications and DP-DP structures, and a strong piece of evidence in favor of analyzing DP-DP structures as structurally distinct from direct predications.

## 7.3 DP-DP Structures

As the term suggests, DP-DP structures are sentences involving two DPs. After discussing basic DP-DP structure data, I discuss a word order restriction which clearly sets DP-DP structures apart from the direct predications discussed imme-

---

<sup>15</sup>Recall from 2.2 that this pattern cannot be due to the presence or absence of a copula, since copular clauses and small clauses display the same pattern in this respect.



diately above in section 7.2. I suggest that the word order restriction ultimately derives from the fact that DPs cannot be predicates (Longobardi, 1994; Matthewson, 1998). From this, I build an argument that DP-DP structures are semantically equative (Heycock and Kroch, 1999), and that there is a null functional head which encodes the equative relation (i.e. *Id*-head). I give a preliminary semantic analysis before moving on to important information structural properties of DP-DP structures, which suggest a slightly more complex view of equation in Okanagan.

### 7.3.1 DP-DP Structures and the Word Order Restriction

Examples of canonical Okanagan DP-DP structures are shown below in (26) (cf. also N. Mattina (1996b, 30)). In (26a), for example, the demonstrative *ixíʔ* ‘that, he, she’ is the first DP, and *iʔ pəptwínax<sup>w</sup>* ‘the old woman’ is the second DP. (26c-d) show that in addition to demonstratives, proper names and *iʔ* DPs may also occur initially in a DP-DP structure. As the translations suggest, DP-DP structures encompass interpretations analogous to English predicational and equative copular sentences (Higgins, 1973, 1979).<sup>16</sup>

- (26) a. [*ixíʔ<sub>DP</sub>*] [*iʔ pəptwínax<sup>w</sup><sub>DP</sub>*].  
           DEM       DET old.lady  
           She is an/the old lady.
- b. [*axáʔ<sub>DP</sub>*] [*iʔ pínaʔ<sub>DP</sub>*].  
           DEM       DET birch.bark.basket  
           This is a/the basket.
- c. [*John<sub>DP</sub>*] [*iʔ səx<sup>w</sup>-mrím-əm<sub>DP</sub>*].  
           John       DET OCC-medicine-MID  
           John is a/the doctor.
- d. [*iʔ sqəltmíx<sup>w</sup><sub>DP</sub>*] [*iʔ səx<sup>w</sup>-píʃ-əm<sub>DP</sub>*].  
           DET man               DET OCC-hunt-MID  
           The man is a/the hunter.

<sup>16</sup>(N. Mattina 1996b, 30) says that examples like 27-28 “consist of two adjacent NPs [(DPs)] standing in an equivalence relationship interpreted as ‘NP = NP’ ([DP = DP]). Equational sentences have neither a lexical verb nor a copula.”

The data in (26) are problematic since there is no obvious predicate, and it is a fundamental property of Salish that DPs cannot be predicates (Matthewson, 1998). Moreover, there is independent evidence that Okanagan DPs are not predicates: a word-order restriction surfaces in answers to WH-questions such that a demonstrative or proper name DP cannot follow an *i?* DP (27-28). Thus, only (27c) and (28c) are possible as answers, not (27d) or (28d).

- (27) a. swit ixíʔ?  
           who DEM  
           Who is she?
- b. ixíʔ ha t pəptwínaxʷ?  
           DEM YNQ OBL old.lady  
           Is she the old lady?
- c. ixíʔ iʔ pəptwínaxʷ.  
           DEM DET old.lady  
           She is the old lady.
- d. \*iʔ pəptwínaxʷ ixíʔ.  
           DET old.lady DEM  
           The old lady is her.
- (28) a. swit ixíʔ tə Spike?  
           who DEM COMP Spike  
           Who is Spike?
- b. swit iʔ ylmíxʷəm?  
           who DET chief  
           Who is the chief?
- c. Spike iʔ ylmíxʷəm.  
           Spike DET chief  
           Spike is the chief.
- d. \*iʔ ylmíxʷəm Spike.  
           DET chief Spike  
           The chief is Spike.

Analyzing the demonstratives in (26a,b) and (27c), the proper name in (26c) and (28c), and the initial *iʔ* DP in (26d) as predicates in these contexts would be in keeping with the broad generalization that Salish languages are predicate-initial (cf. Kroeber (1991, 26) and Czaykowska-Higgins and Kinkade (1998, 37)). I claim that these DPs are not predicates, however, based on the fact that while sentences with lexical predicates (i.e. direct predication) allow for variable word order of the predicate and subject argument, DP-DP structures do not allow variable ordering of the two DPs in these contexts. This furthermore suggests that Okanagan DPs do not freely type shift into predicative functions (Partee, 1986).

My reasoning against analyzing any DP in data such as (26-28) as a predicate is as follows: if the demonstrative or proper name were a predicate in (27c,28c), then the prediction is that an *iʔ* DP could function as an argument expression in (27d,28d) on analogy with the direct predication data: but this is not the case. Similarly, if the *iʔ* DP were a predicate in (27c,28c), then the prediction is that the demonstrative or proper name could function as an argument expression in (27d,28d), but this too is not possible.

There are also restrictions on DP-DP structures involving two *iʔ* DPs, as in (29) below. The case of (29) is slightly more complex than that of (27-28), since while two simple *iʔ* DPs may occur in either order, there is nevertheless an *interpretive* restriction: the first DP must be more referential than the second DP. This means that DP-DP structures are clearly asymmetrical, unlike direct predication.

- (29) a. *iʔ*    *sqəłtmíx<sup>w</sup>*    *iʔ*    *səx<sup>w</sup>-píχ-əm*.  
           DET man            DET OCC-hunt-MID  
           The man is/was a hunter.
- b. *iʔ*    *səx<sup>w</sup>-píχ-əm*    *iʔ*    *sqəłtmíx<sup>w</sup>*.  
           DET OCC-hunt-MID DET man  
           (i) The hunter is a man.  
           (ii) #The hunter was a man.  
           (iii) \*The man is a hunter.  
           (iv) \*The man was a hunter.

The fact that the initial DPs in (29) must be more referential than the second DPs

is indicated by the infelicity of a past-tense interpretation of (29b). To explain, consider that simple direct predications and DP-DP structures have both present and past tense interpretations available.<sup>17</sup> Under the past-tense interpretation of (29b,ii), the sentence is only interpretable under the somewhat unusual reading that the referent of the DP *iʔ səx<sup>w</sup> píxəm* ‘the hunter’ was, but is no longer ‘a man’. This issue does not arise for a past tense interpretation of (29a), since it is perfectly reasonable for a man to cease being a hunter. (29b,iii-iv) show that the final DP may not be more referential than the first DP. By way of reminder, note that for the direct predication corresponding to (29b), where the initial determiner preceding *səx<sup>w</sup> píxəm* ‘hunter’ is absent, the final DP *iʔ sqəltmíx<sup>w</sup>* ‘the man’ must be the referential subject.

In sum, DP-DP structures exhibit a word order restriction such that (i) the initial DP must be more referential than the final DP; and (ii) a demonstrative or proper name, if present, must precede an *iʔ* DP. This generalization can be informally described as a requirement that a directly referential DP (i.e. a proper name or demonstrative), if present, must precede a non-directly referential DP (i.e. an *iʔ* DP), and that in cases involving two *iʔ* DPs, the first *iʔ* DP must be ‘more referential’ than the second. Given that directly referential DPs are more referential, in some sense, than *iʔ* DPs, the overall generalization is as follows: the more-referential DP must come initially.<sup>18</sup>

### 7.3.2 No ‘Predicate’ Raising in Okanagan DP-DP Structures

An important, unifying feature of both direct predications and DP-DP structures in Okanagan is the absence of predicate raising (Moro, 1997; den Dikken, 2006). For direct predications, the ban on predicate raising only becomes evident in the context of a pre-predicative particle (cf 16-19), while for DP-DP structures, it is

<sup>17</sup>This is generally the case for Salish non-verbal predicates in the absence of overt tense or aspectual morphology (Matthewson, 2006b). There are various strategies to disambiguate present and past tense readings, when necessary. For Okanagan, these include the customary/habitual aspectual prefix *ac-*, which favors a present-tense interpretation, and past tense adverbials such as *ləm* ‘past’ and *q̓sápi* ‘long ago’.

<sup>18</sup>Heller (2005) couches similar observations in terms of *discriminability*, where English specificational sentences exhibit a rising discriminability (i.e. the second DP is always more referential than the first). Okanagan DP-DP structures, in contrast, exhibit a ‘falling discriminability’ (i.e. the second DP is always less referential than the first).

immediately evident (28), since a less-referential *i?* DP can *never* precede the more-referential one. For the sake of completeness, I include examples of DP-DP structures in the context of pre-predicative particles (30-33), these being roughly parallel to the direct predications introduced above as (16-19).

The (a) and (b) examples below show that DP-DP structures with an in-situ, more-referential DP (a cases) and those with a raised more-referential DP (b cases) are both possibilities. The (c) and (d) cases are both ungrammatical because a less-referential DP cannot precede the more-referential DP in a predicational context. Assuming that the less-referential *i?* DPs in these examples are somehow licensed as predicates by a Pred-head, then we can make the categorical claim that inverse ordering derived by predicate-raising (Moro, 1997; den Dikken, 2006) is categorically banned in Okanagan:

- (30) a. **way** John [i? səx<sup>w</sup>-ma?- máya?-m <sub>DP</sub>].

yes John DET OCC-RED-teach-MID

Yes, John is the teacher.

- b. John **way** [i? səx<sup>w</sup>ma?máya?m <sub>DP</sub>].

- c. \*[i? səx<sup>w</sup>ma?máya?m <sub>DP</sub>] **way** John.

- d. \***way** [i? səx<sup>w</sup>ma?máya?m <sub>DP</sub>] John.

- (31) a. **mat cmay** John [i? səx<sup>w</sup>-píx-əm <sub>DP</sub>].

EPIS EPIS John DET OCC-hunt-MID

Maybe John is the hunter.

- b. **mat** John **cmay** [i? səx<sup>w</sup>píxəm<sub>DP</sub>].

- c. John **mat cmay** [i? səx<sup>w</sup>píxəm<sub>DP</sub>].

- d. \*[i? səx<sup>w</sup>píxəm <sub>DP</sub>] **mat cmay** John.

- (32) a. **naḵ<sup>w</sup>əm** John [i? səx<sup>w</sup>-píx-əm <sub>DP</sub>].

EVID John DET OCC-hunt-MID

I guess John was the hunter.

- b. John **naḵ<sup>w</sup>əm** [i? səx<sup>w</sup>píxəm <sub>DP</sub>].

- c. \***naḱʷəm** [iʔ səxʷpíχəm<sub>DP</sub>] John.
- d. \*[iʔ səxʷpíχəm<sub>DP</sub>] **naḱʷəm** John.
- (33) a. **χəm** John [iʔ səxʷ-maʔ- máyaʔ-m<sub>DP</sub>].  
 PAST John DET OCC-RED-teach-MID  
 John used to be the teacher.
- b. John **χəm** [iʔ səxʷmaʔmáyaʔm<sub>DP</sub>].
- c. \***χəm** [iʔ səxʷmaʔmáyaʔm<sub>DP</sub>] John.
- d. \*[iʔ səxʷmaʔmáyaʔm<sub>DP</sub>] **χəm** John.

In sum, the implication from the Okanagan direct predication and DP-DP structure data is that it is not possible to move the predicate of a direct predication or a less-referential DP in a DP-DP structure out of a small clause. Direct predication and DP-DP structures nevertheless differ by the fact that a lexical predicate can precede a subject in a direct predication, but a less-referential DP cannot precede a more-referential DP in a DP-DP structure. Given that this asymmetry cannot be due to predicate raising in direct predication, I take this as evidence for two distinct analyses for direct predication and DP-DP structures.

Before moving on to the issue of how DP-DP structures are semantically composed, I briefly discuss the issue of testing for connectivity effects in Okanagan DP-DP structures.

### 7.3.3 Connectivity (and Other) Effects and Okanagan DP-DP Structures

Connectivity effects, as discussed in section 2.2.3, are a hallmark of specificational pseudoclefts and specificational copular clauses, which under analyses such as that of Heycock and Kroch (1999) are equative rather than inverted predication copular clauses. It is not straightforwardly possible to test for connectivity effects in Okanagan, or other distinguishing properties of specificational sentences such as pronominalization (Mikkelsen, 2005), for the following reasons:

- (34) a. Okanagan (and the rest of Salish) lacks WH-relative clauses, and so Okanagan has nothing comparable to WH-pseudoclefts in English.
- b. 3rd person pronouns are normally null, and reflexivization is an operation on the predicate, not on an argument.
- c. Okanagan like other Salish languages (Davis, 2006, 2009) regularly violates condition C.
- d. There is no animate/inanimate or gender/non-gendered split in the pronominal system, so it is not possible to test for pronominalization. Tag questions, which provide one test for pronominalization, are independently not possible in Okanagan.

Regarding (34a), Okanagan does not have WH-relative clauses, which for English are important for showing connectivity effects. Nevertheless, recall from section 2.2.3 that English specificational *th*-pseudoclefts (e.g. *The thing that Harvey<sub>i</sub> did next was wash himself<sub>i</sub> thoroughly*) also show connectivity effects. Okanagan does employ headless relative clauses in argument positions, and so these DPs could be argued to correspond directly to *th*-pseudoclefts in English. Examples of DP-DP structures involving headless relative clauses are given in (35); however (36) shows that a specificational word ordering is uniformly ungrammatical.<sup>19,20</sup>

- (35) a. ixíʔ iʔ kʷu wik-s.  
 DEM DET 1SG.ABS see-(DIR)-3SG.ERG  
 That's the one that saw me.
- b. John iʔ kʷu wik-s.  
 John DET 1SG.ABS see-(DIR)-3SG.ERG  
 John is the one that saw me.

<sup>19</sup>The data in (35) exemplify what I refer to as 'clefts'. I leave off an in-depth discussion of these types of data until chapter 8.

<sup>20</sup>Technically speaking, it should be possible for DP-DP structures consisting of two headless-relative clause DPs, each introduced by *iʔ*, to exist. These would be analogous to English 'The one who hit me is the one who chased me' or 'What I don't like is what John doesn't like'. I have tried to elicit examples such as these as well as other types of higher order equatives in Okanagan, but none of these appear to be possible.

- c. *iʔ sqəłtmíx<sup>w</sup> iʔ k<sup>w</sup>u wik-s.*  
 DET man DET 1SG.ABS see-(DIR)-3SG.ERG  
 The man is the one that saw me.
- (36) a. *\*iʔ k<sup>w</sup>u wik-s ixíʔ.*  
 DET 1SG.ABS see-(DIR)-3SG.ERG DEM  
 The one that saw me is him.
- b. *\*iʔ k<sup>w</sup>u wik-s John.*  
 DET 1SG.ABS see-(DIR)-3SG.ERG John  
 The one that saw me is John.
- c. *\*iʔ k<sup>w</sup>u wik-s iʔ sqəłtmíx<sup>w</sup>.*  
 DET 1SG.ABS see-(DIR)-3SG.ERG DET man  
 The one that saw me is the man.

Regarding (34b), it is not straightforwardly possible to test for Condition A connectivity effects in Okanagan because reflexives in Okanagan are verbal suffixes, not independent words, and because predications involving reflexivization pattern like any other direct predication, in the sense that they allow the subject to precede or follow the predicate.<sup>21</sup>

- (37) a. *Mary s-kə[s]t-m-ncút-x.*  
 Mary NOM-blame-MIN-REFLEX-INTR  
 Mary is blaming herself.
- b. *s-kə[s]t-m-ncút-x Mary.*  
 NOM-blame-MIN-REFLEX-INTR Mary  
 Mary is blaming herself.

In contexts involving exhaustivity, a cleft may be used (38a), but the reflexive predicate (in this case, a headless relative clause predicate) may not precede the focused DP (38b). While it is possible that (38b) is ungrammatical due to the fact that the reflexive is neither bound nor c-commanded by its antecedent ‘John’, data such as (36) indicate that it is a more general property of Okanagan grammar that specificational word order is not possible, and not contingent on any particular binding

<sup>21</sup>There is no audible /s/ in the root *kəst* ‘bad’ in (37-38) below for reasons I cannot determine.



condition.

- (38) a. ixíʔ **John** aʔ c-kə[s]t-m-ncút, lut Sue.  
 DEM John DET CUST-blame-MIN-REFLEX NEG Sue  
 It's John who is blaming himself, not Sue.

- b. \*ixíʔ aʔ c-kə[s]t-m-ncút **John**, lut Sue.  
 DEM DET CUST-blame-MIN-REFLEX John NEG Sue  
 That one who is blaming himself is John, not Sue.

It is worthwhile noting that attempting to elicit examples of specificational pseudoclefts analogous to often cited English examples results in uniformly ungrammatical judgements:

- (39) a. \*iʔ cawt-s Mary iʔ qícəlx.  
 DET doing-3SG.POSS Mary DET run  
 Target: What Mary did was run.  
 Literally: The doing of Mary was run.

- b. \*iʔ cawt-s John iʔ caʔ-cʔá-lx-(aʔx).  
 DET doing-3SG.POSS John DET RED-bathe-(INTR)  
 Target: What John did was wash himself.  
 Literally: The doing of John was washing.

Regarding (34c), some speakers of Okanagan allow violations of Binding Condition C under certain circumstances, though this phenomenon is not well-studied for Okanagan. (See Davis (2006, 2009) for a discussion of Condition C in Lillooet. The examples below were adapted from this work.) To illustrate, in (40b) and (41b), an embedded R-expression is co-valued with a c-commanding pronoun. This considerably complicates attempts to test for Condition C connectivity effects.

- (40) a. Mary s-cut-x ks-ʔaws-təʔt-míxaʔx ʔaʔ ʔláp.  
 Mary NOM-say-INTR FUT-go-fish-INCEPT COMP tomorrow  
 Mary<sub>i</sub> said *pro*<sub>i</sub> was going fishing tomorrow.  
 Literally: Mary<sub>i</sub> said she<sub>i</sub> was going fishing tomorrow.

- b. s-cut-x ks-ʔaws-ʔəʔt-míxaʔx Mary ʔaʔ ʃláp.  
 NOM-say-INTR FUT-go-fish-INCEPT Mary COMP tomorrow  
*pro*<sub>i</sub> said Mary<sub>i</sub> was going fishing tomorrow.  
 Literally: She<sub>i</sub> said Mary<sub>i</sub> was going fishing tomorrow.

- (41) a. Bill n-stils cmay ʃx<sup>w</sup>up iʔ l s-q<sup>w</sup>ə-q<sup>w</sup>úʃaʔ-xən.  
 Bill think EPIS win DET LOC NOM-RED-race-foot  
 Bill<sub>i</sub> wondered if *pro*<sub>i</sub> would win the race.  
 Literally: Bill<sub>i</sub> wondered if he<sub>i</sub> would win the race.

- b. n-stils cmay ʃx<sup>w</sup>up Bill iʔ l s-q<sup>w</sup>ə-q<sup>w</sup>úʃaʔ-xən.  
 n-think EPIS win Bill DET LOC NOM-RED-race-foot  
*pro*<sub>i</sub> wondered if Bill<sub>i</sub> would win the race.  
 Literally: He<sub>i</sub> wondered if Bill<sub>i</sub> would win the race.

Regarding (34d), there are other diagnostics in the literature on copular clauses which are used to distinguish specificational from predicational and equative sentences in English. The pronominalization test (Mikkelsen, 2005), for example, involves a tag question which includes a subject-referring pronoun. For predicational (42a) and equative sentences (42b) in English, the pronoun in the tag question must be gendered. For specificationals (42c) however, the pronoun must be neuter. The argument is that predicational and equative sentences allow [+human] subjects, whereas specificational sentences do not.

(42) data from Comorovski (2007)

- a. Susan is a violinist, isn't she / \*it?  
 b. Aurore Dupin is George Sand, isn't she / \*it?  
 c. The (female) winner is Susan, isn't it / \*she?

For Okanagan, however, the third person absolutive pronominal agreement in Okanagan is null, while the third person ergative occurs as *-(i)s* on a predicate inflected as transitive (cf. section 3.2). Both absolutive and ergative agreement morphology may optionally be accompanied by an overt demonstrative *ixíʔ*, however the form of *ixíʔ* is invariant, and not affected by the animacy or gender of a particular referent.

Tag questions are independently not possible in Okanagan. (43a) was volunteered as equivalent to an example of an English tag question, however the fact that it has two occurrences of the yes-no question particle *ha* indicates that it actually consists of a series of two questions. Removing the first occurrence of *ha* (43b) is ungrammatical. In any case, the null third person pronominal argument of the intransitive predicate *wníx<sup>w</sup>* ‘true’ most likely refers to an implied proposition (the answer to the question), rather than to Susan.

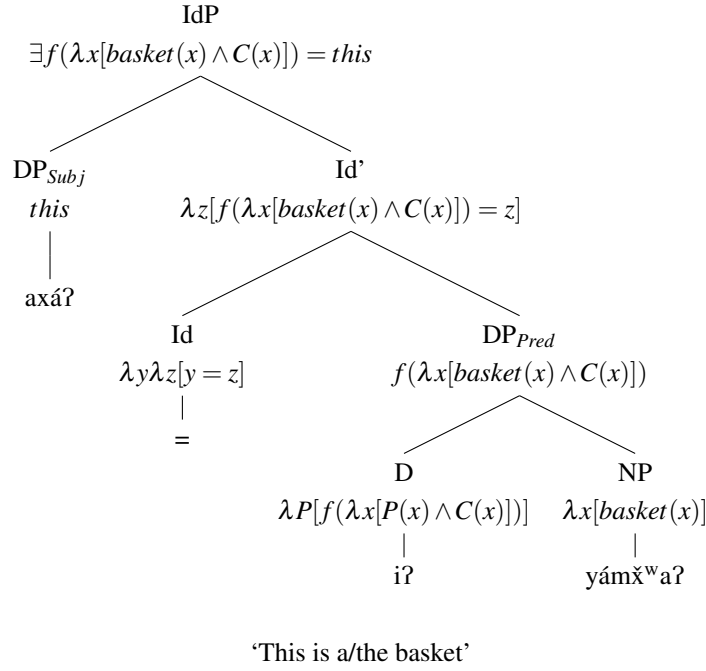
- (43) a. *ixí? ha Shushán, ha wníx<sup>w</sup>?*  
           DEM YNQ Susan YNQ true  
           Target: That’s Susan, isn’t it? (adapted from Mikkelsen (2005, 121))  
           Literally: Is that Susan? Is it true?
- b. *\*ixí? Shushán, ha wníx<sup>w</sup>?*  
           DEM Susan YNQ true  
           Target: That’s Susan, isn’t it? (adapted from Mikkelsen (2005, 121))

In sum, although binding conditions are not well understood for Okanagan, it does not seem possible to test for connectivity effects in Okanagan (35-41), or to distinguish copular sentence types in Okanagan using tests such as pronominalization (43). As far as connectivity effects are concerned, the facts for Okanagan actually simplify an equative analysis, since there is no need, for example, to posit multiple levels of LF in order to reconstruct binding relations (Heycock and Kroch, 1999).

### 7.3.4 An Equative Head

The evidence suggests that DP-DP structures like (27-29) cannot be analyzed as structurally on a par with direct predications. Given that neither of the DPs in a DP-DP structure is a predicate, yet the structures are well-formed, I claim that DP-DP structures are projections of a null functional head that equates the two DP arguments (Heycock and Kroch, 1999). The basic idea (though oversimplified) is shown below in (7.6). A null equative head (*Id* for ‘identity’) converts its first DP argument into an equational predicate before taking its second DP argument:

**Figure 7.6:** An Oversimplified Equative Analysis



Analyzing the Okanagan equative head simply as  $\lambda y \lambda z[y = z]$  (Geist, 2007) is problematic, however. First, it incorrectly predicts that any DP-DP structure should be possible (e.g. 27b, 28b), since *any* individual-denoting expression can function as the complement to the equative head. Second, even under a (correct) stipulation that only *i?* DPs can function as equative head complements, the other, more-referential DP might still linearly follow the predicate DP, allowing for rightward specifiers (cf Figure 7.2 above), but this cannot be a possibility. I therefore reject this analysis.

To resolve these issues, I claim that the equative head must be sensitive to whether a DP is extensional-only (directly referential) or allows intensional readings (Romero, 2005; Comorovski, 2007). The extensional DP must occur left-most due to the fact that the equative head assigns a feature ‘F’ to its second argument (the extensional DP), and focus alignment constraints require that focus occurs to the left (Koch, 2008a). I will discuss each of these points in a separate section. I first discuss information-structural properties of DP-DP structures and how they

differ from direct predication, before giving my final semantic analysis of the equative head.

## 7.4 Information Structure and DP-DP structures

This section investigates the following information structural properties of Okanagan DP-DP structures:

### (44) DP-DP structures

- a. The second *i?* DP in a DP-DP structure introduces an implicature of exhaustivity (not an entailment) (cf. Davis et al. (2004) for clefts in Lillooet and Northern Straits).
- b. There is no presupposition associated with using a DP-DP structure.
- c. The initial DP in a DP-DP structure is interpreted as a focus, and a DP in focus cannot occur finally (as shown for both clefts and direct predication in Thompson River Salish by Koch (2008a)).

It is worthwhile to point out that Okanagan clefts (and clefts in other Salish languages) also show these properties. This reinforces a connection between DP-DP structures and clefts, which I will discuss in chapter 8.

The information structural properties of DP-DP structures differ in certain ways from those found in direct predication:

### (45) Direct predication

- a. Direct predication does not imply exhaustivity.
- b. Focus in a direct predication may occur either initially or finally (cf. section 7.2.1).

I begin with a discussion of (44a).

### 7.4.1 The Exhaustivity Implicature in DP-DP structures

For Okanagan DP-DP structures, the final *iʔ* DP introduces an implicature of exhaustivity to a DP-DP structure. The implicature of exhaustivity stems from the fact that *iʔ* carries an implicature of maximality, given again below as (46) (cf. chapter 5).

(46) **Maximality implicature of *iʔ*:**

$f = \text{MAX}$

By way of illustrating, for (47a) the implicature is that *iʔ pəptwínax<sup>w</sup>* denotes the maximal, contextually salient ‘old lady’. This implicature is missing from the corresponding direct predication, as in (47b) where *pəptwínax<sup>w</sup>* is a nominal predicate.

(47) a.  $[\text{ixíʔ}_{DP}] = [\text{iʔ pəptwínax}^w_{DP}]$ .

DEM = DET old.lady

She is the old lady.

b.  $[\text{ixíʔ}_{DP}] [\text{pəptwínax}^w_{NP}]$ .

DEM old.lady

She is an old lady.

If an equative head intervenes between the two DPs in (47a), then the sentence as a whole will carry a secondary implicature that *ixíʔ* ‘she’ is the *only* individual equivalent to the referent of *iʔ pəptwínax<sup>w</sup>*, hence *ixíʔ* may be interpreted exhaustively. This derived implicature will be absent from (47b), since there is no *iʔ* determiner before the final NP, and thus no equative head. The exhaustivity implicature carried by a DP-DP structure may be expressed as follows (48):

(48) **Exhaustivity Implicature:**

A sentence of the form  $[\text{x}_{DP}] = [\text{iʔ Y}_{DP}]$

a. Asserts:

$\exists f.x = f(Y)$

b. Via (46), this implicates:

$x = \text{MAX}(Y)$

- c. And assuming (48b) is satisfied, a DP-DP structure asserts:  
*x* is the *only Y*.

Expanding upon (48c), the reasoning is that if *i?* *Y* denotes a maximal individual, then there are no other individuals denoted by *i?* *Y* with which some individual *besides x* might be equated, hence *x* is the *only Y*. The exhaustivity expressed in (48c) is an entailment of (48b), however since (48b) is itself an implicature, and the entailment of (48c) is dependent on an implicature being satisfied, the exhaustivity expressed in (48c) is ultimately an implicature of an equative sentence.

The data support this general picture, since in contexts which require exhaustivity, only DP-DP structures can be used. To illustrate, the question in (49a) requires an exhaustive answer, since the question is asking which of a defined group of people are carpenters.<sup>22</sup> In such contexts, a DP-DP structure (49b) is felicitous, while a direct nominal predication (49c) is not.<sup>23</sup>

- (49) a. swit itlɪ? t səx<sup>w</sup>-k<sup>w</sup>úl-ɬx<sup>w</sup>-əṁ?  
 who DEM OBL OCC-make-house-MID  
 Which ones of those people are carpenters?
- b. Bill naʔɬ John uɬ Steve i? səx<sup>w</sup>-k<sup>w</sup>úl-ɬx<sup>w</sup>-əṁ.  
 Bill CONJ John CONJ Steve DET OCC-make-house-MID  
 Bill, John and Steve are the carpenters.
- c. #səx<sup>w</sup>-k<sup>w</sup>úl-ɬx<sup>w</sup>-əṁ Bill naʔɬ John uɬ Steve.  
 OCC-make-house-MID Bill CONJ John CONJ Steve  
 Bill, John and Steve are carpenters.

In (49b), ‘Bill, John and Steve’, as a conjoined DP, is interpreted exhaustively in that it identifies the exhaustive subset of individuals denoted by the DP *i?* səx<sup>w</sup>k<sup>w</sup>úl-ɬx<sup>w</sup>əṁ ‘the carpenters’. In other words, following (48), if *i?* səx<sup>w</sup>k<sup>w</sup>úl-ɬx<sup>w</sup>əṁ denotes

<sup>22</sup>I abstract away from the semantics and pragmatics of questions, and whether or not answers to questions are uniformly exhaustive (cf. Karttunen (1977)). There may be a formal distinction to be made between exhaustivity as introduced by an *i?* DP, and pragmatic exhaustivity as found in Q/A contexts, but answering this question goes beyond the scope of this thesis.

<sup>23</sup>The alternation between *i?* and *t* in question contexts such as (49a) is not well understood, though there may be a subtle semantic difference, possibly related to the alternation between *i?* and *t* in cleft contexts (cf. section 8.5).

a maximal plural individual, then the sentence asserts that the sum of ‘Bill, John and Steve’ is identical to this maximal plural individual. The sentence entails that Bill, John, and Steve are carpenters, and assuming that the maximality is satisfied, it implies that Bill, John and Steve are the only carpenters. In contrast, ‘Bill, John and Steve’ in (49c) is not interpreted exhaustively, since this sentence simply ascribes the property of being a carpenter to three separate individuals.

A similar example is given below as (50), where a forced-choice question requires an exhaustive answer (50b). While ‘Wilford’ answers the question given in (50c), it is not interpreted exhaustively as required by the context.<sup>24</sup>

- (50) a. swit i? səx<sup>w</sup>-k<sup>w</sup>úl-ɬx<sup>w</sup>-əm? ha Spike kəm Wilford?  
           who DET OCC-make-house-MID YNQ Spike CONJ Wilford  
           Who is the carpenter, Spike or Wilford?
- b. Wilford i? səx<sup>w</sup>-k<sup>w</sup>úl-ɬx<sup>w</sup>-əm.  
           Wilford DET OCC-make-house-MID  
           Wilford is the carpenter.
- c. #Wilford səx<sup>w</sup>-k<sup>w</sup>úl-ɬx<sup>w</sup>-əm.  
           Wilford OCC-make-house-MID  
           Wilford is a carpenter.

Another example is given below as (51):

- (51) a. haʔkín i? tɬ pət-pəptwínax<sup>w</sup> i? q<sup>w</sup>əl-q<sup>w</sup>íl-st-əm-s?  
           which DET LOC RED-old.woman DET speak-CAUS-2SG.ABS-3SG.ERG  
           Which one of the old ladies talked to you?
- b. ixí? i? pəptwínax<sup>w</sup>.  
           DEM DET old.woman  
           That’s the old lady.

---

<sup>24</sup>It may still be true in the case of (50c) that Wilford just so happens to be the only individual with the property of being a carpenter, but as a direct predication this is not implied by (50c).



- c. #ixíʔ pəptwínax<sup>w</sup>.  
 DEM old.woman  
 That's an old lady.
- d. #pəptwínax<sup>w</sup> ixíʔ.  
 old.woman DEM  
 That's an old lady.

The subjects of direct predications like (49c), (50c) and (51c,d) are not interpreted exhaustively. This illustrates a semantic distinction between subject DPs in direct predications versus more-referential DPs in DP-DP structures.

Notice that in answer to the equivalent questions in English, the answer does not have to assume a special morpho-syntactic form. Consider that in answer to English (52a) below, both (52b) and (52c) are possible answers (intonational prominence is roughly indicated by bold type). The intonation which (52b) has in answer to (52a), however, will be different than its intonation in answer to a question like (53a):

(52) a. Which ones of those people are carpenters?

- b. **Bill, John and Steve** are carpenters.
- c. **Bill, John and Steve** are the carpenters.

(53) a. What do Bill, John and Steve do for work?

- b. Bill, John and Steve are **carpenters**.
- c. \***Bill, John and Steve** are carpenters.

The point here is that in English, exhaustivity can be signaled via intonation. If intonation were also able to signal exhaustivity in Okanagan (which at least impressionistically speaking, does not seem to be the case), then the prediction is that direct predications should be felicitous in exhaustive contexts, but this is not the case. Okanagan is different than English in the sense that a specific syntactic form (a DP-DP structure) must be used in these cases. In other words, in the absence of

intonation cues, exhaustivity must be signalled by the syntax.

The exhaustivity implicature associated with DP-DP structures is easily cancellable. The first DP-DP structure in (54a) carries an implicature that Bill is the only doctor, but the second DP-DP structure cancels this implicature. In fact, a numerical adverb like *knaqs* ‘one, another’ can occur internal to the second DP (54b).<sup>25</sup>

- (54) a. Bill *i?* səx<sup>w</sup>-mrím-əm, uł John nix<sup>w</sup> *i?*  
 Bill DET OCC-medicine-MID CONJ John also DET  
 səx<sup>w</sup>-mrím-əm.  
 OCC-medicine-MID  
 Bill is a doctor, and John is a doctor too.
- b. Bill *i?* səx<sup>w</sup>-mrím-əm, uł John *i?* *knaqs* *i?*  
 Bill DET OCC-medicine-MID CONJ John DET another DET  
 səx<sup>w</sup>-mrím-əm.  
 OCC-medicine-MID  
 Bill is a doctor, and John is another doctor.

Cancellability of the exhaustivity implicature follows independently from the fact that two occurrences of identical *i?* DPs can be non-co-referent (e.g. in contexts when *f* is existentially bound; cf. chapter 5). That is, in contexts where an *i?* DP denotes a non-maximal individual, the implicature of maximality is cancelled, and non-co-reference is possible.

In answer to questions which do not involve subject DP focus (55a), either a DP-DP structure (55b) or a direct predication (55c,d) can be felicitously used as an answer. The exhaustivity implicature carried by (55b), that Mary is the only teacher, is cancelled since the second DP, *i?* səx<sup>w</sup>maʔmáyaʔm, denotes a non-maximal individual in this context. (55b) is an example of what I refer to as a *pseudo-predicational* reading of a DP-DP structure: when the exhaustivity implicature is cancelled, the DP-DP structure is pragmatically equivalent to a direct predication (55d,e), yet semantically equative.

<sup>25</sup>I tentatively assume that *knaqs* in (54b) is a pre-posed relative clause modifier of *səx<sup>w</sup>mríməm* ‘doctor’, based on arguments made in chapter 6.

- (55) a. *stim Mary a? c-k<sup>w</sup>úl-st-s?*  
 what Mary DET CUST-make-CAUS-3SG.ERG  
 What does Mary do for work?
- b. *Mary i? səx<sup>w</sup>-ma?-máya?-m.*  
 Mary DET OCC-RED-teach-MID  
 Mary is a teacher.
- c. *Mary səx<sup>w</sup>-ma?-máya?-m.*  
 Mary OCC-RED-teach-MID  
 Mary is a teacher.
- d. *səx<sup>w</sup>-ma?-máya?-m Mary.*  
 OCC-RED-teach-MID Mary  
 Mary is a teacher.

A final piece of evidence that the initial DP in a DP-DP structure receives an exhaustive interpretation comes from data like (56). The context set up by the question in (56a) requires an exhaustive answer. The DP-DP structure in (56b) implies that *Bill* is the only teacher in the set which includes *Bill* and *John*, but the direct predication in (56c) simply ascribes the property of being a teacher to *Bill*, without referencing the particular set of teachers currently under discussion.

- (56) a. *ha Bill na?ɬ John i? səx<sup>w</sup>-ma?-máya?-m i? l*  
 YNQ Bill CONJ John DET OCC-RED-teach-MID DET LOC  
*sən-qəy'-mín-tən?*  
 LOC-write-INSTR-INSTR  
 Are Bill and John the teachers at this school?
- b. *lut, Bill i? səx<sup>w</sup>-ma?-máya?-m, lut John.*  
 NEG Bill DET OCC-RED-teach-MID NEG John  
 No, **Bill** is the teacher, not John.
- c. *#lut, Bill səx<sup>w</sup>-ma?-máya?-m, lut John.*  
 NEG Bill OCC-RED-teach-MID NEG John  
 #No, Bill is a teacher, not John.

In sum, we have arrived at the following important generalization: DP-DP structures must be used in contexts which require an exhaustive interpretation, while in contexts which do not require an exhaustive interpretation, both DP-DP structures and direct predications may be used. Assuming that Okanagan lacks intonational cues to signal exhaustivity (cf. Koch (2008a) for Thompson), this is as expected. The exhaustivity implicature is derivable from the maximality implicature carried by the determiner *i?*, and is cancellable. When satisfied, the initial DP is interpreted as the *only* individual equivalent to the referent of the second DP, and is therefore interpreted exhaustively.

#### 7.4.2 DP-DP Predications are Non-presuppositional

DP-DP structures in Okanagan do not carry a presupposition of existence. This is most clearly shown by the fact that DP-DP structures can be used in out-of-the-blue contexts (57). If (57-58) carried a presupposition of existence, i.e. *There is a carpenter* and *There is a cleaner* respectively, then the prediction is that these should be infelicitous in out-of-the-blue contexts, but they are perfectly acceptable.

- (57) Context: at the beginning of a story.

q'sápi Spike i? səx<sup>w</sup>-k'<sup>w</sup>úł-łx<sup>w</sup>-əm.

long.ago Spike DET OCC-make-house-MID

Literally: Long ago, Spike was a carpenter.

(In Context: Long ago, there was a carpenter named Spike.)

- (58) Context: I come over and walk in and am looking around, clearly amazed at how clean everything is. You say:

Jerry i? səx<sup>w</sup>-x<sup>w</sup>k'<sup>w</sup>-ám.

Jerry DET OCC-clean-MID

Jerry is the cleaner.

This property of DP-DP structures is not especially surprising, given that *i?* determiners do not carry a presupposition of existence (cf. section 5.2.2). (57-58) are also instances of pseudo-predicational interpretations of DP-DP structures, as discussed in the previous section. The exhaustivity implicature normally carried by a DP-DP structure is cancelled via the fact that the second *i?* DP denotes a

non-maximal referent in these contexts.

The absence of any presupposition of existence is also a property of Okanagan clefts, as will be discussed in chapter 8.

### 7.4.3 An F-marked Constituent Must Occur Initially in a DP-DP structure

Importantly, in DP-DP structures, the more-referential DP must come initially. To illustrate, in answer to (59), one could answer either (60a) or (61a), with *ixíʔ* ‘that’ or *Spike* receiving an exhaustive interpretation, but not (60b,61b) where the demonstrative or proper name is occurring in final position.

- (59) a. *swit iʔ səx<sup>w</sup>-píʃ-əm?*  
           who DET OCC-hunt-MID  
           Who is the hunter?
- (60) a. *ixíʔ iʔ səx<sup>w</sup>-píʃ-əm.*  
           DEM DET OCC-hunt-MID  
           That’s the hunter.
- b. *\*iʔ səx<sup>w</sup>-píʃ-əm ixíʔ.*  
           DET OCC-hunt-MID DEM  
           That’s the hunter./The hunter is him.
- (61) a. *Spike iʔ səx<sup>w</sup>-píʃ-əm.*  
           Spike DET OCC-hunt-MID  
           Spike is a/the hunter.
- b. *\*iʔ səx<sup>w</sup>-píʃ-əm Spike.*  
           DET OCC-hunt-MID Spike  
           The hunter is Spike.

This finding is significant since it suggests that the information structural equivalents to English specificational copular sentences (Higgins, 1973, 1979), for example *The hunter is Spike* where the DP in final position may be interpreted exhaustively, are not possible in Okanagan. Recall that while the English specificational copular sentence in (62c,63c) is infelicitous as an answer to (63a), it *is* felicitous

as answer to (62a), unlike Okanagan (61b).

- (62) a. Who is the hunter?  
       b. Spike is the hunter.  
       c. The hunter is Spike.

- (63) a. Who is Spike?  
       b. Spike is the hunter.  
       c. #The hunter is Spike.

For DP-DP structures containing a demonstrative (or proper name) and an *i?* DP, the former must always precede the latter, regardless of the WH-question.<sup>26</sup> To illustrate, the questions in (64a) and (65a) make the *i?* DP in the replies in (64b,c) and (65b,c) a focus, but the *i?* DP still cannot precede the demonstrative or proper name.<sup>27</sup>

- (64) a. swit ixí??  
       who DEM  
       Who is that?  
       b. ixí? i? səx<sup>w</sup>-píǎ-əm.  
           DEM DET OCC-hunt-MID  
           That's the hunter.  
       c. \*i? səx<sup>w</sup>-píǎ-əm ixí?.  
           DET OCC-hunt-MID DEM  
           That's the hunter./The hunter is him.

<sup>26</sup>Though in the absence of any WH-question, apparent inversions of this pattern are possible. I leave off discussion of these until 7.7, since there is reasonable doubt that these inversions involve an exhaustivity implicature, F-marking, or an equative head.

<sup>27</sup>The complementizer *ǵə* in (65) is sometimes used in identificational sentences, preceding a proper name. Speakers often translate this use of *ǵə* as instantiating a relation such as 'x is called y' or 'x is named y'. The optional use of the complementizer in this environment supports an argument whereby proper names in these cases are predicates, ascribed to a contextually salient entity. See section 7.6.1 for further discussion of Okanagan identificational sentences.

- (65) a. swit ɬə Spike?  
           who COMP Spike  
           Who is Spike?
- b. Spike iʔ səx<sup>w</sup>-píʔ-əm.  
           Spike DET OCC-hunt-MID  
           Spike is a/the hunter.
- c. \*iʔ səx<sup>w</sup>-píʔ-əm Spike.  
           DET OCC-hunt-MID Spike  
           Spike is the hunter./The hunter is Spike.

Recall that there is nothing inherently wrong with an initial *iʔ* DP functioning as a focus just in case the second DP is also introduced by *iʔ*, and is not a proper name or demonstrative, as (66) shows.

- (66) Context: answer to ‘Who is the hunter?’  
       iʔ ylmíx<sup>w</sup>əm iʔ səx<sup>w</sup>-píʔ-əm.  
       DET chief DET OCC-hunt-MID  
       The chief is the hunter.

These data suggest that the pragmatic notion of ‘ground’ (i.e. the background in the discourse context), used by Heycock and Kroch (1999) for explaining the fixed information structure of specificational sentences in English, and the requirement that the initial DP represent relatively old information, is not relevant in Okanagan DP-DP structures, since inverse structures like (64c) and (65c) are *always* ungrammatical as answers to WH-questions. As such, a purely pragmatic account of the word order restriction in Okanagan DP-DP structures, similar to that of Heycock and Kroch (1999), will fail.

There is no general requirement in Okanagan that focus in a direct predication occur initially (cf. 55). In (67b,c) below, the NP *səx<sup>w</sup>maʔmáyaʔm* ‘teacher’ is a focus, but can either precede or follow the subject. (68a) uttered in a context where the speaker walks into a room, sees bandages lying on a table but has no idea what happened or how many people got hurt or who they are, allows (68b) as a response,

where *Mary* is a focus.<sup>28</sup>

(67) a. *stim Mary a? c-k<sup>w</sup>úl-st-s?*  
 what Mary DET CUST-make-CAUS-3SG.ERG  
 What does Mary do for work?

b. *Mary səx<sup>w</sup>-ma?-máya?-m.*  
 Mary OCC-RED-teach-MID  
 Mary is a teacher.

c. *səx<sup>w</sup>-ma?-máya?-m Mary*  
 OCC-RED-teach-MID Mary  
 Mary is a teacher.

(68) a. *swit i? xənnnumt?*  
 who DET get.hurt  
 who DET hurt  
 Who got hurt?

b. *Mary xənnnumt.*  
 Mary get.hurt  
 Mary got hurt.

---

<sup>28</sup>There is, however, a preference. In (i), a subject initial form is infelicitous, though not ungrammatical.

(i) a. *stim mat a? c-k<sup>w</sup>úl-st-s i? xəǵ-ǵǵáp.*  
 what EPIS DET CUST-make-CAUS-3SG.ERG DET RED-grown  
 What does the old man do for work?

b. *#i? xəǵ-ǵǵáp q<sup>w</sup>ay-lqs.*  
 DET RED-grown black-robe  
 The old man is a priest.

c. *q<sup>w</sup>ay-lqs i? xəǵǵǵáp.*  
 black-robe DET RED-grown  
 The old man is a priest.

The preference for predicate-initial ordering for direct predications which do not involve subject DP-focus becomes stronger for nominal predicate constructions (NPCs, i.e. ‘bare clefts’), where the argument DP is a headless relative clause. These are discussed in chapter 8.



- c. xənnunt Mary.  
get.hurt Mary  
Mary got hurt.

I claim that the word order restriction apparent in DP-DP structures derives from a lexical property of the equative head, such that it F-marks its second argument (cf. sections 2.3.1 and 7.5). Linear-alignment constraints then force the F-marked constituent to occur left-most (Koch, 2008a). Foci in direct predication, by contrast, do not appear to follow the same linear-alignment constraints. In concrete terms, although we can state as a pragmatic principle for Okanagan ‘An F-marked focus must occur initially in Okanagan DP-DP structures’, this principle by itself does not explain why an *i?* DP can be F-marked *only if* the second DP is an *i?* DP, and not a proper name or demonstrative. I therefore appeal to a semantic asymmetry between *i?* DPs on the one hand, and proper names and demonstratives on the other (cf. section 7.5).

#### 7.4.4 Summary

To close this section, we have seen that Okanagan DP-DP structures carry an implicature of exhaustivity. This is given as follows (cf. 48):

(69) **Exhaustivity Implicature:**

A sentence of the form  $[x_{DP}] = [i? Y_{DP}]$

- a. Asserts:

$$\exists f.x = f(Y)$$

- b. Via the maximality implicature of *i?* (cf. 46) this implicates:

$$x = \text{MAX}(Y)$$

- c. And assuming (48b) is satisfied, a DP-DP structure asserts:

*x* is the *only Y*

This exhaustivity implicature carried by the sentence is cancellable, just in case the second *i?* DP denotes a non-maximal individual.

We have also seen that DP-DP structures exhibit a strict word ordering, such

that a more-referential DP may not follow a less-referential *i?* DP in a question-answer context, regardless of the information-structural status of the two DPs. The word order restriction is plausibly explained by the following set of principles:

**(70) Information Structural Principles of Okanagan DP-DP Structures**

- a. F-marking is a lexical property of a null equative copula.
- b. The initial DP of a DP-DP structure must be F-marked.
- c. An F-marked constituent aligns to the left (Koch, 2008a).

These principles, by themselves, do not explain why an initial *i?* DP can be F-marked *only if* the second DP is an *i?* DP. The analysis of the equative head which I present in the next section solves these issues.

## **7.5 Analysis of the Equative Head**

### **7.5.1 A Semantic Asymmetry**

A simple equative analysis of Okanagan DP-DP structures does not explain why the second DP cannot be directly referential. In order to derive the word order restriction seen with Okanagan DP-DP structures, I appeal to a semantic asymmetry based on intensionality: the equative head distinguishes between directly referential, extensional DPs (proper names (Kripke, 1982) and demonstratives (Kaplan, 1977)) and non-directly referential, intensional DPs (*i?* DPs) (Romero, 2005; Comorovski, 2007), and selects only an intensional DP as a complement. The surface distribution of Okanagan DP types in equative structures is shown below in Table 7.1.<sup>29</sup>

---

<sup>29</sup>As Table 7.1 implies, equatives consisting of two proper names are not possible in Okanagan. In section 7.6.1, I claim that sentences consisting of two proper names form a subclass of direct predication.

**Table 7.1:** Directly versus Non-directly Referential DPs in Equative DP-DP Structures

| Okanagan DPs                     | Demonstratives | Proper Names | <i>i?</i> DPs |
|----------------------------------|----------------|--------------|---------------|
| -directly referential            | ✓              | ✓            | *             |
| -initial DP in a DP-DP structure | ✓              | ✓            | ✓             |
| -final DP in a DP-DP structure   | *              | *            | ✓             |

Intensionality is argued to be a defining characteristic of the initial DP in a specificational sentence in (Romero, 2005), based on the fact that definite DPs are sometimes interpretable as concealed questions. The specificational copula is given the following denotation in (Romero, 2005, 715, ex.67a).<sup>30</sup> Underlining on the *y* argument indicates intensionality in (71).

- (71) Romero (2005)  
 $[[be]] = \lambda x_{\langle e \rangle} \lambda \underline{y}_{\langle s, e \rangle} \lambda w_s. \underline{y}(w) = x$

Recall that Okanagan *i?* DPs allow individual concept readings, as in (72), repeated from chapter 5, section 5.2.9. For (72), the referent of *i?* *ylmíx<sup>w</sup>əm* ‘the chief’ is any non-specific future individual which happens to be the chief at that future time.<sup>31</sup>

- (72) cmay *i?* ylmíx<sup>w</sup>əm laʔkín *i?* tkłmilx<sup>w</sup>.  
 EPIS DET chief when DET woman  
 Maybe someday the chief will be a woman.

<sup>30</sup>Under such an analysis, the copula *be* is ambiguous. It either maps an intensional individual to an extensional one, or vice versa, depending on whether the sentence is predicational or specificational (cf also Partee (1986)).

<sup>31</sup>Line Mikkelsen (p.c.) rightly points out that if (72) is a DP-DP structure, I do not straightforwardly predict the initial DP *i?* *ylmíx<sup>w</sup>əm* ‘the chief’ to be interpreted intensionally, which it obviously is in this context. The presence of the WH-item *laʔkín* ‘when’ is unclear, however, and so it is not clear that (72) is in fact a DP-DP structure. More examples like this should be checked.

As such, I claim that the Okanagan equative head employs an asymmetry similar to (71), however with the order of the arguments reversed, so that the equational head's complement is intensional (i.e. an *i?* DP), while the specifier argument is extensional (i.e. referential, either a directly referential expression or an *i?* DP).

(73) Okanagan

$$[[=]] = \lambda_{\underline{x} \langle s, e \rangle} \lambda_{y_e} \lambda_{w_s} [\underline{x}(w) = y]$$

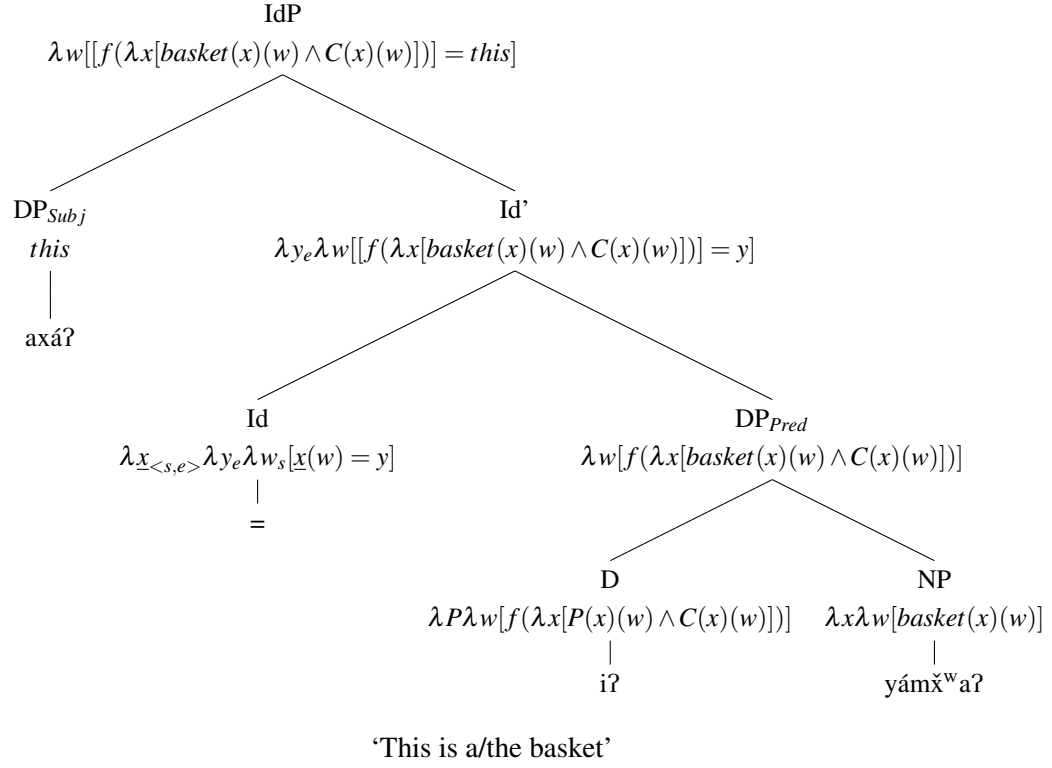
This analysis assumes that directly referential expressions (i.e. demonstratives, proper names) may not be of an intensional type  $\langle s, e \rangle$ .<sup>32</sup>

While this analysis captures the *semantic* asymmetry between the two DPs, by itself it incorrectly allows for both grammatical structures where the more-referential DP is in initial position (Figure 7.7) and ungrammatical structures where the less-referential DP is in initial position (Figure 7.8):

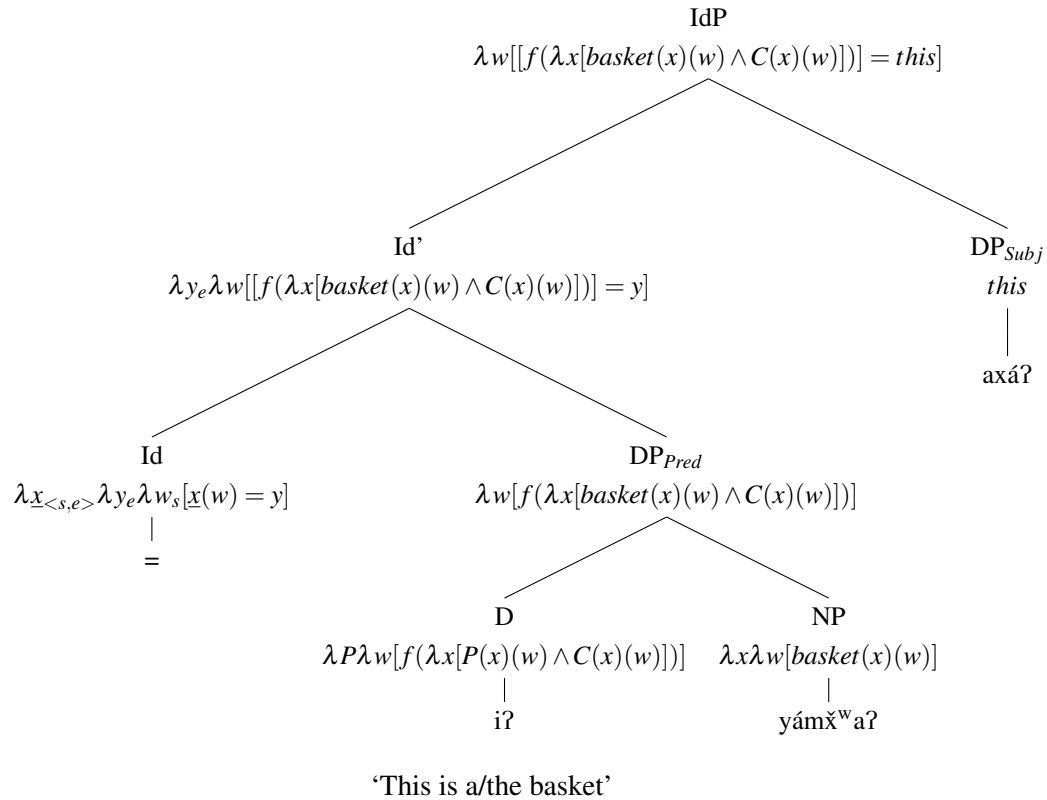
---

<sup>32</sup>It may also be argued that *all* DPs may be of an intensional type  $\langle s, e \rangle$ , but that directly referential DPs are constant functions, whereas non-directly referential DPs are not (Kripke, 1982). Under this assumption, a filter could be written into the semantics of (73) such that constant functions from worlds to individuals are not permitted for the first argument (i.e. there has to be at least one world where the DP denotes an individual *y*, rather than an individual *x*). Since this is a more general issue for copular analyses which rely on an intensional asymmetry (e.g. Romero (2005)), I assume for the sake of simplicity that directly referential DPs simply cannot be of type  $\langle s, e \rangle$ .

**Figure 7.7:** Semantic Asymmetry, more-referential DP is in initial position



**Figure 7.8:** Semantic Asymmetry, less-referential DP is in initial position



This is because while (73) reflects the semantic asymmetry in DP-DP structures, it does not reflect the fixed information structure. I claim that focus alignment constraints (cf. Koch (2008a) for Thompson) force the more-referential DP, as an exhaustive focus, to occur left-most.

### 7.5.2 Focus Alignment

The problem with assuming nothing beyond a semantic asymmetry for the Okanagan equative head, is that there is nothing to rule out the structure given as Figure 7.8. Focus alignment constraints have proved useful in analyzing closely-related Thompson Salish (Koch, 2008a), and their applicability in Okanagan ap-

pears promising as well.

Koch (2008a) investigates the focus and intonation properties of Thompson River Salish nominal predicate constructions and clefts. He observes for clefts and nominal predicate constructions (NPCs) that a focused constituent must occur to the left of non-focused material. Hence, the NPC (74a) is grammatical but (74b) is not.

- (74) a. Téʔe. [qʷúʔ<sub>FOC</sub>] ʔuʔ e s-ʔúqʷeʔ-kt.  
 NEG water just DET NOM-drink-1PL.POSS  
 No, we'll just drink [water<sub>FOC</sub>]. (Thompson, Koch (2008a, 251, ex.15))
- b. \*Téʔe. ʔúqʷeʔ-kt ʔuʔ e [qʷúʔ<sub>FOC</sub>].  
 NEG drink-1PL.POSS just DET water  
 No, we'll just drink [water<sub>FOC</sub>]. (Thompson, Koch (2008a, 251, ex.17c))

Koch (2008a, 251, ex.13) captures this generalization as follows:<sup>33</sup>

- (75) FOCUS LEFT: Align the left edge of the focus-marked p(rosodic)-phrase with the left edge of an intonational phrase.

Koch has strong acoustic evidence for analyzing the entire sentence in (74a), excluding the initial negation, as an intonational phrase (Pierrehumbert, 1980). He found that nuclear pitch accent occurs on the right edge of an intonational phrase, as indicated the first line of (76) below. An intonational phrase may consist of one or more prosodic phrases, each marked by a pitch accent, as in the second line of (76). What Koch shows for Thompson is that focus does not coincide with nuclear pitch accent. In other words, “narrowly focused constituents do not attract additional prosodic prominence” (Koch, 2008a, 169, ex.20).

- (76) (X) ( X ) intonation-phrase  
 (X) ( X ) ( X ) prosodic-phrase  
 Téʔe. [qʷúʔ<sub>FOC</sub>] ʔuʔ e s-ʔúqʷeʔ-kt.  
 NEG water just DET NOM-drink-1PL.POSS  
 No, we'll just drink [water<sub>FOC</sub>]. (Thompson, Koch (2008a, 251, ex.15))

<sup>33</sup>Koch (2008a) develops a fine-grained Optimality Theoretic analysis involving focus alignment constraints, which I abstract away from here.

There have to date been no systematic studies investigating acoustic correlates of focus in Okanagan<sup>34</sup>; however, it is plausible that the FOCUS LEFT constraint (75) is also operative in Okanagan DP-DP structures, as in (77):

- (77) a. ha Bill naʔt John iʔ səx<sup>w</sup>-maʔ-máyaʔ-m iʔ l  
 YNQ Bill CONJ John DET OCC-RED-teach-MID DET LOC  
 sən-qəy-mín-tən?  
 LOC-write-MIN-INSTR  
 Are Bill and John the teachers at this school?
- b. lut, **Bill** iʔ səx<sup>w</sup>-maʔ-máyaʔ-m, lut John.  
 NEG Bill DET OCC-RED-teach-MID NEG John  
 No, **Bill** is the teacher, not John.
- c. \*lut, iʔ səx<sup>w</sup>-maʔ-máyaʔ-m **Bill**, lut John.  
 NEG DET OCC-RED-teach-MID Bill NEG John  
 No, the teacher is **Bill**, not John.

I suggest that as a lexical property, the equative head assigns a syntactic feature ‘F’ (i.e. F-marking) to its second argument, and this is interpretable to the information structural component of the grammar as ‘focus’.<sup>35</sup>

### 7.5.3 Final Analysis

Assuming that FOCUS LEFT (75) requires an F-marked constituent to align to the left, the structure in (Figure 7.8), where the less-referential DP precedes the more-referential DP in exhaustive focus, is correctly ruled out. The final analysis of the equative head is given as (78-79), and a sample derivation is given in Figure (7.9)

#### (78) Okanagan, final analysis

$$[[=]] = \lambda \underline{x}_{<s,e>} \lambda y_e \lambda w_s [\underline{x}(w) = y]$$

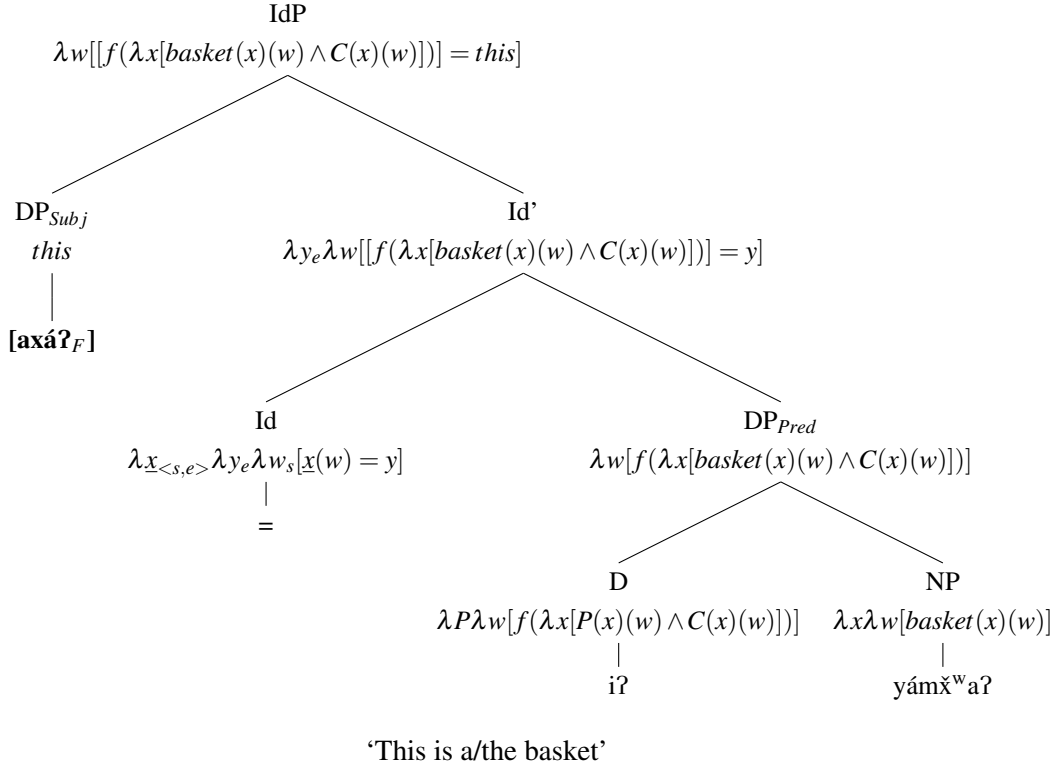
<sup>34</sup>It is worthwhile to mention Barthmaier (2004), who establishes the existence of intonational units in Colville-Okanagan.

<sup>35</sup>There is no evidence for focus-related movement (Ogihara, 1987) in Okanagan DP-DP structures.



- (79) The equative head assigns a syntactic feature ‘F’ to its second argument.

**Figure 7.9:** Final Equative Analysis of Okanagan DP-DP Structures



The copula in Figure 7.9 (cf. 78) takes an intensional individual  $\underline{x}$  (the second DP) and an extensional individual  $y$  (the first DP) as arguments, and yields a proposition that is true in a world  $w$  if and only if  $\underline{x}$  applied to  $w$  is identical to  $y$ . Given that  $i?$  DPs occur as type  $\langle s, e \rangle$  expressions when they saturate the initial argument position of the equative head, yet are type  $e$  expressions when they saturate the second argument position. I assume that  $i?$  DPs have the property of being able to freely type lower to extensional expressions when necessary.<sup>36</sup>

<sup>36</sup>See section 9.4.2 for a summary discussion of the semantic types of Okanagan DPs, and their type-shifting possibilities.

The exhaustivity implicature, as applied to the example in Figure (7.9), is derived as in (81), assuming the maximality implicature of the determiner as given in (80):

(80) **Maximality implicature of *i?*:**

$f = \text{MAX}$

(81) **Exhaustivity Implicature:**

The sentence  $[\text{axá?}_{\text{Focus DP}}] = [i? \text{ yám}^w \text{a?}_{\text{DP}}]$

a. Asserts:

$\exists f. [\text{this} = \lambda w. f(\lambda x [\text{basket}(x)(w) \wedge C(x)(w)])]$

b. Via (80), this implicates:

$\text{this} = \lambda w \text{MAX}(\lambda x [\text{basket}(x)(w) \wedge C(x)(w)])]$

c. And assuming (81b) is satisfied, asserts:

‘this’ **is the only *x* equal to**  $\lambda w \text{MAX}(\lambda x [\text{basket}(x)(w) \wedge C(x)(w)])]$

In contexts where the second *i?* DP is interpreted as non-maximal, for example in a context where there is more than one basket in the context, only the assertion holds (81a).

This analysis of the equative head predicts that DP-DP equatives consisting of a demonstrative and a proper name (e.g. *This is John*) or two proper names (e.g. *Cicero is Tully*) should not be possible, since both expressions are presumably directly referential in these cases. These types of sentences are, in fact, possible in Okanagan; however there is reason to believe that they are not equatives. In the next section, I discuss these types of data, and argue that these comprise an *identificational* sentence sub-class (Higgins, 1973), which may be reducible to a type of direct predication.

## 7.6 Other Predication Types Involving Demonstratives and Proper Names

This section investigates two other types of predication, the first involving a demonstrative or demonstrative-associated DP and a proper name, the second involving

two proper names. I claim that both may be reduced to sub-types of direct predication (excepting cases which may be analyzed as truncated clefts), since a proper name in these cases must be a predicate. These data have interesting implications with regards to extending Higgins' taxonomy to Okanagan. I provide a taxonomy of Okanagan non-verbal predications in Table 7.3 below.

### 7.6.1 The Case for Identificational Sentences

There are data in Okanagan which appear to correspond to Higgins' *identificational* class, as opposed to the direct predications or DP-DP equatives examined so far. These data normally involve a simple demonstrative and a proper name, or a demonstrative-associated *i?* DP and a proper name. A proper name is a predicate in these cases, an ascription of sorts, and I suggest that identificational sentences in Okanagan are a subtype of direct predication. Like other direct predications, these sentence types allow variable word order in WH-contexts, as shown for cases involving a demonstrative and a proper name (82-83).

- (82) a. ixí? Spike.  
           DEM Spike  
           That is Spike. (answer to "Who is Spike?")
- b. ixí? Sarah.  
           DEM Sarah  
           That is Sarah. (answer to "Who is that woman?")
- (83) a. Lottie ixí?  
           Lottie DEM  
           That's Lottie. (answer to "Who is Saʔálqs?")
- b. Spike ixí?  
           Spike DEM  
           It's Spike. (answer to "Who is knocking on the door?")

Independent evidence that proper names can be predicates in certain contexts comes from subject procliticization data. Consider that like any lexical predicate (84a), a subject proclitic may attach to a proper name (84b). This is not the case

for *i?* DPs (85a) or demonstratives (85b).<sup>37</sup>

- (84) a. kn            səx<sup>w</sup>-k<sup>w</sup>úł-łx<sup>w</sup>-əm.  
           1 SG.ABS OCC-make-house-MID  
           I'm a carpenter.
- b. kn            John.  
           1 SG.ABS John  
           I'm John.
- (85) a. \*kn            i?    səx<sup>w</sup>-k<sup>w</sup>úł-łx<sup>w</sup>-əm.  
           1 SG.ABS DET OCC-make-house-MID  
           I'm a/the carpenter.
- b. \*kn            ixí?  
           1 SG.ABS DEM  
           That is me.

In equatives, a proper name cannot be a predicate, as evidenced by the fact that it cannot occur in final position like other predicates. It seems reasonable to propose that sentences like (82-83) have a different structure than equatives, one which is consistent with a predicative analysis of proper names. On this basis, I suggest that Okanagan too has a class of identificational sentences, though these may be analyzed as a subclass of direct predication in the sense that no functional intermediary is necessarily involved.

Data such as (82-83) raise at least two questions:

- a.        What prevents proper names from functioning as predicates in equational structures?
- b.        What prevents non-demonstrative-associated *i?* DPs from functioning as direct arguments to proper names in an identificational sentence?

Regarding question (a), the selectional restrictions of the copula require that its second DP argument must be of type e, which means that in equative structures, a proper name must undergo either N-to-D raising or be the complement of a null D

---

<sup>37</sup>See N. Mattina (2006, 111) for similar observations in Moses-Columbian.

(cf. discussion in section 4.6.2). Since proper names do not denote non-rigid individual concepts of type  $\langle s, e \rangle$ , they cannot function as complements to the equative head.

Question (b) presents a more challenging issue, especially in light of the fact that identificational sentences similar to (82-83), but involving a demonstrative-associated *i?* DP (86) are also possible. The adjoined demonstrative minimally distinguishes an Okanagan identificational sentence (86), which allows variable word ordering, from an equative, which does not allow free word order (87).<sup>38</sup>

(86) a. *ixí?* *i?* *səx<sup>w</sup>-k<sup>w</sup>l<sup>l</sup>-mín-əm* John.

DEM DET OCC-work-MIN-MID John

That hard worker is John.

b. John *ixí?* *i?* *səx<sup>w</sup>-k<sup>w</sup>l<sup>l</sup>-mín-əm*.

John DEM DET OCC-work-MIN-MID

John is the one that is a hard worker.

(87) a. \**i?* *səx<sup>w</sup>-k<sup>w</sup>l<sup>l</sup>-mín-əm* John.

DET OCC-work-MIN-MID John

The hard worker is John.

b. John *i?* *səx<sup>w</sup>-k<sup>w</sup>l<sup>l</sup>-mín-əm*.

John DET OCC-work-MIN-MID

John is the hard worker.

Based on the data seen so far, the generalization seems to be that an identificational sentence requires the presence of a demonstrative, and under the assumption that identificational sentences are a sub-type of direct predication, the demonstrative in (82-83, 86) somehow licenses ascriptive readings of proper names. (This is not quite correct, however, since identificational sentences involving two proper names are also possible, as I show in section 7.6.2.)

It is crucial to note that for cases where the proper name occurs in final position (cf. 86a), the proper name cannot be in focus: (88c, cf. 86a) below cannot be used as answer to (88b). (88d) can be used as an answer to (88b) since it is ambiguously

<sup>38</sup>(86b) is ambiguously an equative, though (86a) is not. I return to this issue below.

equative, and the focus occurs initially.

- (88) a. *swit ixi? ɬə John?*  
           who DEM COMP John  
           Who is John? (Question 1)
- b. *swit ixi? t səx<sup>w</sup>-k<sup>w</sup>l<sup>ʔ</sup>-mín-əm?*  
           who DEM OBL OCC-work-MIN-MID  
           Who is the hard worker? (Question 2)
- c. *ixi? i? səx<sup>w</sup>-k<sup>w</sup>l<sup>ʔ</sup>-mín-əm John.*  
           DEM DET OCC-work-MIN-MID John  
           That hard worker is John. (answers 1, **not** 2)
- d. *John ixi? i? səx<sup>w</sup>-k<sup>w</sup>l<sup>ʔ</sup>-mín-əm.*  
           John DEM DET OCC-work-MIN-MID  
           John is the one that is a hard worker. (answers 1 *or* 2)

The data in (88) merit further discussion. In answer to (88a), (88c) does not have the information structure of a specificational sentence, rather it appears to be attributing the name John to a contextually salient entity (i.e., it is an identificational sentence). I would argue that an exhaustivity implicature is not involved in the case of (88c), though it *is* in (88d), at least in answer to (88b). This means that (88a) does not require an exhaustive answer, and so (88c,d) are acceptable as direct predications, and (88d) as a DP-DP structure where the exhaustivity implicature has been cancelled. (88b), by contrast, *does* require an exhaustive answer, and so assuming that predicates cannot be exhaustive, the proper name must be interpreted as individual-denoting, and (88c) is only interpretable as an ungrammatical inverse equative, leaving (88d) as the only possible response.

Identificational sentences involving proper names and simple demonstratives (cf. 82-83), where the proper name is in focus, may be analyzed as truncated clefts (Hedberg, 2000; Mikkelsen, 2005). Such an analysis is motivated by data like (89), where a contextually salient residue clause *a? cnpuwápəm* ‘who was knocking on the door’ is omissible.<sup>39</sup>

<sup>39</sup>I investigate these facts in more detail in chapter 8. A demonstrative can also precede or follow

(89) Truncated Cleft analysis

- a. ixíʔ Spike (aʔ c-n-pw-áp-əm).  
 DEM Spike DET CUST-n-knock-INCH-MID  
 It's Spike (who is knocking on the door).
- b. Spike ixíʔ (aʔ c-n-pw-áp-əm).  
 Spike DEM DET CUST-n-knock-INCH-MID  
 Spike is the one (who is knocking on the door).

I argue in chapter 8 that Okanagan clefts are equative structures, and so if the truncated cleft analysis of simple demonstrative identificational is correct, then identificational sentences *cannot* be reduced to direct predications. Not all identificational sentences may be reduced to the truncated cleft analysis, however: cases involving demonstrative-associated *iʔ*-DPs such as (86a, 88c), where a proper name occurs finally, are not analyzable as clefts, truncated or otherwise, since proper names cannot function as cleft residues, just as they cannot function as the final DP in a DP-DP structure.

In sum, identificational sentences involving simple demonstratives are surface ambiguous between predication sentences and truncated clefts, the difference being whether or not the proper name is a predicate. Those involving demonstrative-associated DPs with proper names in final position may only be analyzed as direct predications, while those with proper names in initial position may be equative or predicational. For Danish and English, Mikkelsen (2005) analyzes identificational sentences with simple demonstrative subjects as specificational, and those with demonstrative DP subjects as equatives. The differences between this English classification and what I propose for Okanagan are represented below in Table 7.2.

---

an *iʔ* DP in a cleft context, but if the demonstrative follows the *iʔ* DP, then the residue clause must be overt (since otherwise we have something surface-identical to an ungrammatical inverse equative).

**Table 7.2:** Reducing Higgins' Taxonomy: Identificational Sentences in Okanagan Compared to Mikkelsen's (2005) Classification of English

|                           | English         | Okanagan                                     |
|---------------------------|-----------------|--|
| Demonstrative subjects    | specificational | predicational/<br>equative (truncated cleft) |
| Demonstrative DP subjects | equative        | predicational/<br>equative (truncated cleft) |

It is also worthwhile to note that Mikkelsen (2005) distinguishes between sentences like *She is Susan* which are analyzed as equatives, and sentences like *That is Susan* which are specificational. For Okanagan, there is no distinction between these two types, since the demonstrative *ixíʔ* may denote both human and non-human referents.

### 7.6.2 Predications Involving Two Proper Names

Okanagan allows a predicative relation to exist between two proper names. These types of data are directly analogous to classical English examples such as *Cicero is Tully*, which are usually understood to be equative. In Okanagan, however, there is good evidence that these cases are a sub-type of predicational clause, since like the identificational sentences just discussed, a proper name must be predicative. In (90), for example, Spike is playing the part of the famous chief Chillhitzia in a play. In (91a), the addressee does not know who *Saʔálqs* is, and so the speaker identifies Lottie as being the bearer of the Indian name *Saʔálqs* (91b).

- (90) Spike ʔəlxíʔaʔ t kl-kláxʷ.  
Spike Chillhitzia OBL RED-evening  
Spike was Chillhitzia last night.

- (91) a. swit ixíʔ ʔə Saʔálqs?  
who DEM COMP Saʔálqs  
Who is Saʔálqs?



- b. kn            nstils Lottie Saʔálqs.  
 1SG.ABS think Lottie Saʔálqs  
 I think that Lottie is Saʔálqs.

Evidence that the second proper names in (90,91b) are predicative comes from data showing that the predicative proper name may precede the referential one without any change in meaning (92, cf. 90), and that a subject proper name (e.g. ‘Sarah’) may raise over negation (93b), but the predicative proper name may not (93c) (cf. section 7.2.2).<sup>40</sup>

- (92) ʕəlxiʕaʔ Spike t s-kl-kláx<sup>w</sup>.  
 Chillhitzia Spike OBL NOM-RED-evening  
 Spike was Chillhitzia last night.

- (93) a. lut Sarah ṭ Saʔálqs.  
 NEG Sarah EMPH Saʔálqs  
 Sarah is not Saʔálqs.

- b. Sarah lut ṭ Saʔálqs.  
 Sarah NEG EMPH Saʔálqs  
 Sarah is not Saʔálqs.

- c. \*Saʔálqs lut ṭ Sarah.  
 Saʔálqs NEG EMPH Sarah  
 Sarah is not Saʔálqs.

Further evidence for analyzing one of the proper names as a predicate comes from the presence of the complementizer *ṭ* in these contexts: it optionally intervenes between subject and predicate in these contexts. Thus (94a) and (94b) are pragmatically equivalent in a context where someone is being ascribed with a name.<sup>41</sup>

<sup>40</sup>The emphatic marker *ṭ(i)* regularly co-occurs with negation. I assume that it pro-cliticizes to a predicate.

<sup>41</sup>It should be mentioned that there is no inherent difference between Christian and Indian names. In answer to ‘Who is Lottie?’ for example, (i) below is perfectly felicitous (cf. (94b)). In this case, ‘Lottie’ is the predicate.

- (94) a. Lottie Saʔálqs.  
           Lottie Saʔálqs.  
           Lottie Saʔálqs.  
       b. Lottie ʔə Saʔálqs.  
           Lottie COMP Saʔálqs.  
           Lottie is Saʔálqs.

The complementizer ʔə may also optionally be used in contexts for which someone is teaching another the name of something. Either a direct predication (95a) or a predication with ʔə (95b) may be used in a context where a mother is teaching her two year old the names of objects.<sup>42</sup>

- (95) a. axáʔ lpot, axáʔ ncəcqíptən, axáʔ lasyət.  
           DEM cup DEM bowl DEM plate  
           This is (called) a cup, this is (called) a bowl, this is (called) a plate.  
       b. axáʔ ʔə lpot, axáʔ ʔə ncəcqíptən, axáʔ ʔə lasyət.  
           DEM COMP cup DEM COMP bowl DEM COMP plate  
           This is (called) a cup, this is (called) a bowl, this is (called) a plate.

The complementizer ʔə is *only* felicitous in naming contexts, hence (96b) sounds very strange to a speaker.

- (96) a. John səx<sup>w</sup>-k-čǣ<sup>w</sup>ípəlaʔ-m.  
           John OCC-k-judge-MID  
           John is a judge.  
       b. ʔJohn ʔə səx<sup>w</sup>-k-čǣ<sup>w</sup>ípəlaʔ-m.  
           John COMP OCC-k-judge-MID  
           (?)John is called a judge.

- 
- (i) Saʔalqs ʔə Lottie.  
       Saʔalqs COMP Lottie  
       Saʔalqs is Lottie.

<sup>42</sup>See discussion of Lillooet in section 9.3.2. The Lillooet auxiliary *waʔ* is required in identificational contexts for some speakers (Davis, 2010c).

Finally, the predicative proper name may optionally be introduced by an *iʔ* determiner in these contexts (97). These are equative structures. From the syntactic perspective, the availability of an optional *iʔ* determiner is as expected given that proper names may be analyzed as lexical NPs.<sup>43</sup> From the pragmatic perspective, *iʔ* is predicted to be possible given that equatives are pragmatically equivalent to direct predications in cases where the exhaustivity implicature is cancelled (cf. section 7.4.1). Like with other equatives, the proper name introduced by *iʔ* cannot precede the bare proper name (98).

(97) a. Lottie *iʔ* Saʔalqs.

Lottie DET Saʔalqs

Lottie is Saʔalqs.

b. Spike *iʔ* Čəlxícaʔ t kl-klax<sup>w</sup>.

Spike DET Chillhitzia OBL RED-evening

Spike was Chillhitzia last night.

(98) \**iʔ* Saʔalqs Lottie.

DET Saʔalqs Lottie

Lottie is Saʔalqs.

This brings us to the question of what exactly it means for a proper name to be a predicate. In (97a), for example, it seems odd to argue that the exhaustivity implicature is cancelled, and that this is the reason that it is pragmatically equivalent to (94a), since the proper name predicate in (94a) presumably denotes a singleton set, and the proper name *iʔ* DP in (97a) a maximal individual.

In light of the fact that DP-DP equatives permit ‘pseudo-predicational’ readings in case the exhaustivity implicature is not satisfied, it seems more useful to say that direct predications involving either a demonstrative (or demonstrative-associated DP) and a proper name (7.6.1), or else two proper names, permit ‘pseudo-equative’ readings since proper names denote singleton sets in these instances. We therefore predict that true equatives (97a) and pseudo-equative direct predications (94a) will be pragmatically equivalent.

<sup>43</sup>Or if not lexical NPs, then arguably coercible into NPs.

### 7.6.3 Summary

This section first presented Okanagan data involving a demonstrative (or demonstrative-associated DP) and a proper name, and has shown that these pattern more like direct predications than equatives, both in terms of word order and in terms of information structure. I have claimed that these cases correspond to Higgins' identificational sentence class, and that for Okanagan they form a sub-type of direct predication where the proper name is a predicate. Identificational sentences involving a simple demonstrative may in some cases be analyzed ambiguously as truncated clefts, a type of equative (cf. chapter 8). Next, I discussed sentences involving two proper names and showed that one of the proper names must be analyzed as a predicate, similar to the case for identificational sentences. Direct predications involving proper name predicates permit 'pseudo-equative' interpretations, since the proper name predicate denotes a singleton set.

I now move on to a discussion of problematic cases of 'inversion', where a less-referential *i?* DP precedes what appears to be a more-referential, focused DP.

## 7.7 Problem Inversions

There are data which appear to show that Okanagan does in fact have specificational sentences. Within a single discourse turn, a speaker can utter (99a), and then follow up with (99b) or (99c), which appear to be inverse equatives. (99d) was actually judged ungrammatical in this context, which is surprising given that it displays the expected ordering of an equative.

(99) a. Bill *i?* səx<sup>w</sup>-mrím-əm.

Bill DET OCC-medicine-MID

Bill is a doctor.

b. tkʔkaʔsíləm *i?* səx<sup>w</sup>-sx<sup>w</sup>-mrím-əm John ut Mary.

two(HUMAN) DET OCC-RED-medicine-MID John CONJ Mary

Two (other) doctors are John and Mary.

- c. iʔ knaqs iʔ səx<sup>w</sup>-mrím-əm John.  
 DET one(HUMAN) DET OCC-medicine-MID John  
 Another doctor is John.  
 Consultant: If you're telling a story about a doctor, introducing him.
- d. \*John uʔ Mary tkʔkaʔsíləm iʔ səx<sup>w</sup>-sx<sup>w</sup>-mrím-əm.  
 John CONJ Mary two(HUMAN) DET OCC-RED-medicine-MID  
 John and Mary are two other doctors.

Other, similar examples are given in (100):

- (100) a. tx<sup>w</sup>aʔ-x<sup>w</sup>ʔit iʔ s-maʔ-mʔ-ím, uʔ iklíʔ iʔ  
 RED-many(HUMAN) DET NOM-RED-woman CONJ DEM DET  
 knaqs iʔ k<sup>w</sup>ək<sup>w</sup>yúmaʔ Sue.  
 one(HUMAN) DET small Sue

There are a lot of women, and the smallest woman there is Sue.

- b. Context: You are having an argument with your friend about who is the prime minister.

iʔ prime minister tl Canada lut tə Trudeau, náǰəmʔ  
 DET prime minister LOC Canada NEG EMPH Trudeau, CONJ  
 Harper iʔ prime minister.  
 Harper DET prime minister

The prime minister of Canada isn't Trudeau, it's Harper who is the prime minister.

Consider also that at the beginning of a narrative, both canonical (101a) and inverse (101b) predications were judged grammatical:

- (101) a. ǰsápi Spike iʔ səx<sup>w</sup>-k<sup>w</sup>úl-ʔx<sup>w</sup>-əm.  
 long.ago Spike DET OCC-make-house-MID  
 Long ago, Spike was a carpenter.  
 (Literally: Long ago, there was a carpenter named Spike.)

b. q̣sápi i? səx<sup>w</sup>-ḳ<sup>w</sup>úl-ɬx<sup>w</sup>-əm Spike.  
 long.ago DET OCC-make-house-MID Spike  
 Long ago, Spike was a carpenter.  
 (Literally: Long ago, there was a carpenter named Spike.)

There is one thing that seems to be clear about these problematic cases of inversion: They are not felicitous as answers to a WH-question, as (102) shows.

- (102) a. swit i? səx<sup>w</sup>-ḳ<sup>w</sup>úl-ɬx<sup>w</sup>-əm q̣sápi?  
 who DET OCC-make-house-MID long.ago  
 Who was the carpenter long ago?
- b. q̣sápi Spike i? səx<sup>w</sup>-ḳ<sup>w</sup>úl-ɬx<sup>w</sup>-əm.  
 long.ago Spike DET OCC-make-house-MID  
 Long ago, Spike was a carpenter.
- c. \*q̣sápi i? səx<sup>w</sup>-ḳ<sup>w</sup>úl-ɬx<sup>w</sup>-əm Spike.  
 long.ago DET OCC-make-house-MID Spike  
 Long ago, Spike was a carpenter.

Compare also the inversion in (103c) which is similar to (100a), but is not possible in answer to the question (103a).

- (103) a. swit i? mys-tíq<sup>w</sup>əlq<sup>w</sup> tɬ s-təmx<sup>w</sup>úla?x<sup>w</sup>-mp?  
 who DET most-tall LOC NOM-land-2PL.POSS  
 Who is the tallest person in your community?
- b. Spike i? mys-tíq<sup>w</sup>əlq<sup>w</sup> tɬ s-təmx<sup>w</sup>úla?x<sup>w</sup>-tət.  
 Spike DET most-tall LOC NOM-land-1PL.POSS  
 Spike is the tallest person in our community.
- c. \*i? mys-tíq<sup>w</sup>əlq<sup>w</sup> tɬ s-təmx<sup>w</sup>úla?x<sup>w</sup>-tət Spike.  
 DET most-tall LOC NOM-land-1PL.POSS Spike  
 The tallest person in our community is Spike.

Also consider that (104, cf. 100b) appears to show inversion around negation, but recall that predicate raising is never a possibility, including in contexts involving

negation (105c). This goes for DP-DP structures as well (106), in answer to a WH-question.

- (104) Context: You are having an argument with your friend about who is the prime minister.

iʔ prime minister tɬ Canada lut tə Trudeau, náxəmt  
DET prime minister LOC Canada NEG EMPH Trudeau, CONJ

Harper iʔ prime minister.

Harper DET prime minister

The prime minister of Canada isn't Trudeau, it's Harper who is the prime minister.

- (105) a. Sarah lut t syx<sup>w</sup>áp-məx.

Sarah NEG EMPH Shuswap-person

Sarah is not Shuswap, she's Okanagan.

- b. lut Sarah t syx<sup>w</sup>áp-məx.

NEG Sarah EMPH Shuswap-person

Sarah is not Shuswap.

- c. \*syx<sup>w</sup>áp-məx lut t Sarah.

Shuswap-person NEG EMPH Sarah

Sarah is not Shuswap.

- (106) a. ha John iʔ səx<sup>w</sup>-məʔ-máyáʔ-m?

YNQ John DET OCC-RED-teach-MID

Is John the teacher?

- b. lut John tə iʔ səx<sup>w</sup>-məʔ-máyáʔ-m.

NEG John EMPH DET OCC-RED-teach-MID

John is not the teacher.

- c. \*iʔ səx<sup>w</sup>-məʔ-máyáʔ-m lut tə John.

DET OCC-RED-teach-MID NEG EMPH John

The teacher is not John.

In sum, these problematic inversions are not felicitous in answer to a WH-

question, which is unexpected if they were in fact true specificationals. Speakers indicate that these inversions are good in introductory contexts, when a referent is being introduced (cf. 99c), though the contexts in which the data in (100) were judged indicate that a non-contrastive *i?* DP can also precede a proper name.

There are three possible analyses of these inversion cases:

- a. As identificational sentences, where the final proper name is a predicate.
- b. As standard equatives with topicalization movement of a less-referential *i?* DP to a position preceding the more-referential DP (Heggie, 1988; Mikkelsen, 2005; Partee, 2010).
- c. Inversion is in fact possible in DP-DP structures, but if they contain a focused constituent it has to be in initial position.

The first possibility is that these are identificational sentences, similar to those discussed in section 7.6.1 which also display variable word order, but minus a demonstrative (or possibly introduced by a null demonstrative). That means that the proper name is a predicate in these cases, being ascribed to a contextually salient entity, and is not interpreted exhaustively. This seems especially promising for the out-of-the-blue cases (cf. 101), where it seems likely that the proper name is an ascription of sorts, however for inversions within a single discourse turn (cf. 100), this analysis seems less clear, since these do appear to be specificational in the sense that the proper name specifies who or what the initial *i?* DP is.

The second possible analysis is that these involve topicalization, or left dislocation of an *i?* DP (cf. Mikkelsen (2005) for a discussion of predicate topicalization). That is, these are underlyingly equative, with focus on the proper name, and the *i?* DP is dislocated to adjoin to some high functional position. The negation data in this section actually indirectly support the topicalization hypothesis, since we otherwise expect identificational sentences to be good both as answers to WH-questions as well as in other contexts, but this is not the case (compare 100b and 106c). This view additionally fits with the intuition that for ongoing topic data like (100), the proper name *is* a focus. We can then state that a F-marked DP in final position is underlyingly the initial, more-referential DP of an equative clause, and that the surface-initial *i?* DP is left-dislocated, outside of the intonational phrase.



Acoustical evidence is needed to substantiate this hypothesis, however.

The third possible analysis essentially reduces to an argument that it is *not* a lexical property of the equative head to assign a feature ‘F’ to its second argument, interpretable by the information structural component as ‘focus’. In section 7.5, I claimed that DP-DP equatives inherently involve focus. If one were to argue that DP-DP structures may occur without focus, we lose the generalization that word order is rigid in WH-contexts, and so I do not further discuss this possibility.

It is interesting that Koch (2012) notes that speakers of Thompson River Salish do not obligatorily mark contrastive focus within their own discourse turn. Example (107) is a direct predication: the main predicate is  $\text{ʔ}^w\acute{o}y\acute{t}$  ‘sleep’, and the proper name *Sam* in the second clause is contrasted with *Bill* in the first clause. For the equivalent sentence in English, *Sam* should be obligatorily marked as a focus. For Thompson, this means that *Sam* should occur at the left periphery of the second clause, but it instead occurs in final position.

- (107)  $\text{ʔ}^{\acute{e}x-i\text{ʔ}\acute{\lambda}u\text{ʔ}-xe\text{ʔ}} \text{ } \text{ʔ}^w\acute{o}y\acute{t} \text{ } e \text{ } \text{Bill}, \text{ } \text{ʔe}\text{ł} \text{ } \text{ʔ}^{\acute{e}x-i\text{ʔ}\acute{\lambda}u\text{ʔ}} \text{ } \text{ʔ}^w\acute{o}y\acute{t} \text{ } e \text{ } \text{Sám}.$   
 IMPF-still-DEM sleep DET Bill and IMPF-still sleep DET Sam  
 Bill is still sleeping, and Sam is still sleeping.  
 (Thompson, Koch (2012, ex.39))

Unlike Thompson, it is notable that the focused DP in an Okanagan direct predication *may* occur in final position in answer to a WH-question. Since the problematic cases of Okanagan inversions discussed in this section pattern like Thompson (107) in terms of not being felicitous in answer to a WH-question, this may be evidence for analyzing the Okanagan cases as identificational direct predications, assuming that Thompson introduced clefts, which are the closest analogue to DP-DP structures in Okanagan, cannot occur with a focused DP in final position. On the other hand, the proper name in final position in (107) is clearly a DP, whereas under the identificational predication analysis of the Okanagan inversion data in this section, the proper name should be an NP predicate. This means that it is also a possibility that while Thompson allows focus to occur finally for direct predications within a discourse turn, Okanagan allows focus-final DP-DP structures within a discourse turn, assuming that the topicalization hypothesis is correct.

In any case, it seems clear that for Okanagan, as with Thompson, there is a

difference between discourse strategies which are used across discourse turns (e.g. WH-question/answer pairs) versus within a discourse turn (cf. 100) or at the beginning of a narrative (cf. 101). Under a cross-linguistic assumption that specificational sentences should be felicitous as answers to *at least some* WH-questions, we can maintain the argument that Okanagan does not have specificational sentences, though it remains unclear exactly why an appropriate WH-question cannot yield an information structural configuration which licenses topicalization, and a surface ordering for DP-DP structures whereby the more-referential DP follows the less-referential DP. It will be a worthwhile endeavor to investigate other types of data involving multiple discourse turns, aside from question/answer contexts, in order to see whether the distribution of these inverse structures is truly dependent on the status of an utterance with respect to interlocution.

## 7.8 Summary and Implications

### 7.8.1 Summary of Major Points

This chapter has argued for the following points:

- a. Okanagan DP-DP predications are syntactically and information-structurally distinct from direct predications, broadly supporting Heycock and Kroch (1999) who posit distinct predication and equative small clauses for English.
- b. Okanagan direct predications do not involve any copula.
- c. Okanagan DP-DP structures are equative (Heycock and Kroch, 1999), and are projections of a null equative copula.
- d. Okanagan DP-DP structures carry an implicature of exhaustivity, which is traceable to the maximality implicature of the *i?* determiner in the second DP. The implicature is cancellable, leading to the availability of ‘pseudo-predicational’ readings for which a DP-DP structure is pragmatically equivalent to its corresponding direct predication.
- e. The initial DP of a DP-DP structure is interpreted as a focus.

- f.      Specificational DP-DP structures are not possible in Okanagan. This receives an explanation whereby:
  - (i) the equative head selects only intensional ( $\langle s, e \rangle$ ) *i?* DPs as a complement (Romero, 2005), not directly referential DPs.
  - (ii) the equative head assigns a feature 'F' to its second argument, which is interpretable as a focus (Rooth, 1992).
  - (iii) alignment constraints force an F-marked constituent to occur left-most (Koch, 2008a).
  - (iv) there is a ban on predicate raising (a.k.a. 'syntactic inversion') (Moro, 1997; den Dikken, 2006).
- g.      Identificational sentences, and sentences involving two proper names in a predicative relation, may be reduced either to a sub-type of direct predication (i.e. a proper name is a predicate), or in some cases to a truncated clefts, which are a type of equative.
- h.      Apparent cases of syntactic inversion involving DP-DP structures plausibly involve topicalization of an *i?* DP. These structures are possible within a running discourse, but not in answer to a WH-question.

### 7.8.2 Implications

There are several interesting implications to this analysis of the Okanagan data, a few of which I will touch on here. I refer the reader to a more comprehensive discussion of implications in chapter 9.

#### A Higgins' Taxonomic Classification of Okanagan Non-Verbal Predications

First of all, Higgins' taxonomy appears to be reducible to two types for Okanagan, predicational and equative, as depicted below in the following chart, where subjects and more-referential DPs are indicated in bold italic type, predicates and less-referential DPs are in normal italic type, and cleft residues are in brackets.

**Table 7.3:** Higgins' Taxonomy and Okanagan Non-Verbal Predications

| CLAUSE TYPE                             | EXAMPLE  | SUBJECT | COMPLEMENT |
|---|--|---------|------------|
| <b>Predicational</b>                    | <i>Wilford</i> $səx^w k^w ul̥x^w əm$<br>$səx^w k^w ul̥x^w əm$ <i>Wilford</i><br>(Wilford is a carpenter)                         | e       | <e,t>      |
| (Identificational)                      | <i>Spike</i> $čəlxičəʔ$<br>$čəlxičəʔ$ <i>Spike</i><br>(Spike is Chillhitzia)   |         |            |
|   | <i>John</i> $ixiʔ iʔ səx^w k^w l̥mínəm$<br>$ixiʔ iʔ səx^w k^w l̥mínəm$ <i>John</i><br>(That hard worker is John)                 |         |            |
|   | <i>ixiʔ John</i><br><i>John</i> <i>ixiʔ</i><br>(That's John)   |         |            |
| <b>Equative</b>                         | <i>Wilford</i> $iʔ səx^w k^w ul̥x^w əm$<br>* $iʔ səx^w k^w ul̥x^w əm$ <i>Wilford</i><br>(Wilford is a/the carpenter)             | e       | <s,e>      |
| (Identificational<br>(truncated cleft)) | $ixiʔ$ <i>John</i> [... (residue)]<br><i>John</i> $ixiʔ$ [... (residue)]<br>(It's John)  |         |            |
| (Identificational<br>(full cleft))      | <i>John</i> $ixiʔ [iʔ səx^w k^w l̥mínəm]$<br>* $ixiʔ [iʔ səx^w k^w l̥mínəm]$ <i>John</i><br>(It's John that is the hard worker.) |         |            |

This chart shows that there are two clear classes of non-verbal predication in

Okanagan corresponding to Higgins' predicational and equative classes. Identificational sentences may be analyzed as either predicational or equative, depending on (i) whether a proper name is predicative or referential (which in turn depends in part on whether the context requires exhaustivity); and (ii) information structure, specifically where focus falls.

Note that under the truncated cleft hypothesis, a non-subject demonstrative can only be an intensional <s,e> under the assumption that it is adjoined to a null residue headed by the determiner *i?*. This means that when the demonstrative occurs initially, it forms a discontinuous constituent with the residue clause. I present evidence for such an analysis in section 8.5.2. While there are unresolved questions of compositionality here which I have not been able to solve (cf. section 4.6.1), notice that if we were to assume that simple demonstratives could *also* be non-rigid individual concepts of type <s,e>, then we predict that a specificational word order should be possible (e.g. *i? səx<sup>w</sup> k<sup>w</sup> úłx<sup>w</sup> əm ixí?*), (since *i?* DPs are type e when they are the second arguments of the equative copula) but this is not the case.<sup>44</sup>

### Implications for Reducing the Identificational Class

My analysis of Okanagan identificational offers interesting points of comparison with previous analyses of English identificational. Here, I briefly discuss how my analysis contrasts with analyses of English identificational by Mikkelsen (2005) and Heller (2005).

Mikkelsen (2005) assimilates English identificational sentences with simple demonstrative subjects to the specificational class, while those with demonstrative phrase subjects are “demonstrative equatives”. Okanagan identificational sentences involving simple demonstratives may in some cases be analyzed as truncated clefts (a type of equative), but in other cases are best analyzed as predicational. Okanagan identificational sentences with demonstrative-associated *i?* DPs may only be analyzed as equatives if a non-predicative proper name occurs initially, otherwise they must be analyzed as predicational. Okanagan thus offers some support for analyzing identificational involving “demonstrative phrase” subjects as

<sup>44</sup>It is possible that further work on binding condition C in Okanagan could offer independent support for a semantic distinction between bare demonstratives and demonstratives adjoined to DPs (cf. Davis (2006, 2009) for Lillooet).

non-predicational, although an analysis of these as specificational is of course dependent on a language having specificationals in the first place.

Heller (2005, 197) states that identificational sentences are “predicational sentences in which the post-copular phrase is an essential property that is assumed to be new information, so the entity denoted by the pre-copular phrase has to be picked out by an expression that does not presuppose this property.” Okanagan *predicational* identificational sentences largely support this characterization: a proper name like *John* in these cases may be viewed as an essential property, and crucially, the demonstrative or demonstrative-associated DP is referential. For *equative* identificationals in Okanagan, however, the proper name is a referential expression, and the demonstrative, which adjoins to an overt or truncated *i?* DP, denotes a non-rigid individual concept.<sup>45</sup>

In sum, the Okanagan data broadly support Mikkelsen (2005) and Heller (2005) in attempting to reduce Higgins’ identificational class to either a predicational or equative class.

There are other implications to this classification worth mentioning, which I discuss in a section on theoretical implications (9.4). The next chapter investigates the syntax, semantics, and information structure of clefts in Okanagan. These will be shown to be information structurally, and morpho-syntactically, equivalent to simpler DP-DP structures. On the basis of their commonalities, I claim that both derive from a common underlyingly equative structure. In this respect, the Okanagan data support theories which derive clefts from copular clauses.

---

<sup>45</sup>Heller and Wolter (2008) analyze identificational sentences with simple demonstratives as a type of predicational sentence. They argue that the initial demonstrative is an individual concept of type  $\langle s, e \rangle$ , and that the post-copular complement is a function from worlds to sets of individual concepts, of type  $\langle s, \langle \langle s, e \rangle, t \rangle \rangle$  (i.e. ‘a sort’ (Gupta, 1980)). There is little evidence at this point for positing such higher types for Okanagan, though this and similar analyses must remain as distinct possibilities.

## Chapter 8

# Okanagan Clefts as Equatives

This chapter investigates a class of sentences known as ‘clefts’ in the wider literature on Salish languages (Kroeber, 1999; Davis et al., 2004; Koch, 2008a, 2009). A typical Okanagan cleft is shown in (1), with its three possible translations (focus indicated in the English translation by bold type):<sup>1</sup>

- (1) ixíʔ iʔ səx<sup>w</sup>-máʔ-máyaʔ-m iʔ k<sup>w</sup>u q<sup>w</sup>əl-q<sup>w</sup>íl-st-s.  
DEM DET OCC-RED-teach-MID DET 1SG.ABS RED-speak-(CAUS)-3SG.ERG  
a. **That**’s the teacher that talked to me.  
b. **That teacher** is the one that talked to me.  
c. It’s the **teacher** who talked to me.

Textual examples of similar clefts can be found in A. Mattina (1985):<sup>2</sup>

- (2) a. way' ixíʔ [iʔ] i-s-ən-ʔəm-ʔímaʔ-t yəʔ  
yes DEM DET 1SG.POSS-NOM-n-RED-grandchild DET  
n-kəʔ-kt-ús-əs...  
n-cut.off-RED-head-3SG.POSS[?]  
It’s my grandchildren whose heads are cut off. (A. Mattina 1985, stz.100)

<sup>1</sup>Unlike in English, focus is not necessarily signalled by pitch accenting in Okanagan.

<sup>2</sup>The determiner yəʔ in (2a) is a variant of iʔ, found in Colville.

- b. ...axáʔ iʔ qəy'-mín iʔ s-c-qáy'-tət.  
 DEM DET write-INSTR DET NOM-CUST-write-1PL.POSS  
 That's the letter we wrote. (A. Mattina 1985, stz.181)

## 8.1 Introduction

This section first introduces some terminological conveniences which I use when discussing Okanagan clefts, and then presents the main claims of this chapter, followed by an outline of this chapter.

### 8.1.1 Terminological Preliminaries

In the Salish literature, the term ‘cleft’ traditionally encompasses both ‘bare clefts’, which are a form of direct predication, and ‘introduced clefts’ which are so named because they are normally introduced by a clefting predicate. I use the term ‘cleft’ as a descriptive term to refer to Okanagan sentences which involve structural focus, lack a main clause lexical predicate (NP, VP, or AP), and are typically though not always introduced by a distal demonstrative *ixíʔ* while ending with a non-focused clausal constituent.

I begin with an assumption that the discourse-related and interpretive parallels between clefts in Okanagan and clefts in other (Salish and non-Salish) languages also imply certain syntactic and semantic parallels, and my discussion will reflect this assumption. This assumption allows us the use of descriptive terms such as ‘focus position’ and ‘residue clause’, and is useful in comparing Okanagan clefts with those in other Salish languages.

The interpretive ambiguity in Okanagan clefts (cf. 1) necessitates some important terminological clarifications: By *focus* and *in focus*, I refer to a linguistic expression with the information-structural property of indicating alternatives relevant for the interpretation of that expression (Rooth, 1985, 1992) (cf. section 2.3.1) and/or the left peripheral position in an Okanagan equative which may be interpreted exhaustively assuming that the exhaustivity implicature is satisfied (chapter 7). In contrast, I use *focus position* as a descriptive term referring to the constituent which canonically follows either a clefting predicate or demonstrative (e.g.



the demonstrative *ixíʔ* in (1)) and which precedes the residue clause (e.g. *iʔ kʷu qʷəlqʷílsts* ‘that talked to me’ in (1)) (Kroeber, 1999; Davis et al., 2004; Koch, 2009). As implied by Okanagan (1), interpretation (a), the constituent in the *focus position* and the constituent *in focus* are not necessarily the same.<sup>3</sup>

### 8.1.2 The Main Claim

My main claim is as follows:

- (3) Okanagan clefts and DP-DP structures are both equatives.

This claim is based on information structural and morpho-syntactic parallels between clefts and DP-DP structures: clefts imply exhaustivity, lack any presupposition of existence, and require focus to be aligned left (despite the appearances of 1c), exactly as with DP-DP structures (cf. section 7.4). Morpho-syntactically, the only difference between DP-DP structures and clefts is that in the former class, the final DP is non-clausal, while in the latter class, the final DP is clausal. Okanagan clefts, unlike clefts in many other Salish languages (e.g. Thompson (Koch, 2009), Lillooet and Northern Straits (Davis et al., 2004)), allow the residue clause to contain an overt NP head which provides strong evidence that the residue is a DP. I present a derivational analysis whereby the Okanagan clefting demonstrative *ixíʔ* forms an underlying constituent with the equative complement. The discontinuous constituency of the clefting demonstrative and residue clause in Okanagan clefts may therefore be understood as broadly supporting ‘extraposition-from-subject’-style theories (Percus, 1997; Hedberg, 2000) (cf. section 2.4.1).

### 8.1.3 Chapter Outline

This chapter proceeds as follows:

First, I introduce and discuss Okanagan clefts in the context of previous studies of clefts in Salish (section 8.2). I describe clefts under a classical analysis as tripartite structures consisting of an introductory particle, a ‘focus position’, and a residue clause (8.2.1). Any type of DP can occupy the ‘focus position’ (8.2.3).

---

<sup>3</sup>This issue is related to the fact that an initial non-focused clefting demonstrative must be distinguished from an initial focused demonstrative, which is the 2nd argument of the equative copula. This distinction must be kept in mind throughout the reading of this chapter.

Second, I show that Okanagan introduced clefts (i.e. clefts where a DP focus is introduced by a demonstrative) share the same information structural properties as DP-DP structures (8.3): i.e. they imply without entailing exhaustivity (8.3.2), they lack any presupposition (8.3.3), and they require that the focused DP precede the residue clause (8.3.4). This constitutes information structural evidence for a common analysis of clefts with DP-DP structures. I then briefly contrast *nominal predicate constructions* (NPCs, a.k.a. ‘bare’ clefts) (Kroeber, 1999; Davis et al., 2004) with introduced clefts (8.3.5). I analyze these as direct predications, and then set them aside.

Third, I discuss a three-way interpretive ambiguity for clefts with an *i?* DP in ‘focus position’ (8.4.1, cf. 1):

- a. **Demonstrative Focus:** The initial demonstrative can be in focus, to the exclusion of a following ‘focus position’ *i?* DP and residue clause.
- b. **Demonstrative DP Focus:** The demonstrative and a constituent *i?* DP (in ‘focus position’) are in focus, to the exclusion of the final clause.
- c. **DP Focus:** The ‘focus position’ *i?* DP can be in focus, to the exclusion of the initial demonstrative and residue clause.

I suggest that interpretations (a) and (b) straightforwardly support an equative analysis (8.4.2). (Interpretation (c) does as well, though since this case is more complex I save discussion of this until section 8.5.) For interpretation (a), I claim that a headed relative clause DP is the first argument of the equative head and the demonstrative is the focused, second argument; for interpretation (b), a headless relative clause DP is the first argument of the equative head, and a demonstrative-associated DP is the focused, second argument. Okanagan clefts are straightforwardly amenable to the equative analysis because:

- a. Okanagan canonically introduces clefts with a demonstrative, rather than the dedicated clefting predicate characteristic of other Salish languages, such as Thompson (Kroeber, 1999; Koch, 2008a) or Lillooet (Davis et al., 2004).
- b. It is an independent fact about Okanagan grammar that demonstratives can

form constituents with *i?* DPs (chapter 4).

- c. Okanagan bare CPs are surface indistinguishable from headless relative clause DPs, despite the fact that *i?* is not a complementizer (cf. the mechanics of relative clause formation, chapter 6), but Okanagan cleft residues allow overt NP heads, unlike in Thompson (Koch, 2009).

As such, the only surface distinction between DP-DP structures and clefts is that the second DP in a cleft contains clausal material, and so the semantics of equation may proceed straightforwardly.

Fourth, I return to a discussion of the DP focus interpretation (c) which initially seems problematic for the equative analysis because the presence of the initial, non-focused and deictically weak demonstrative is unexplained both in terms of its structural role as well as its interpretive role in the equative structure (8.5).<sup>4</sup> There are several important facts worth noting here:

- a. For the DP Focus (c) interpretation, the initial demonstrative is optional.
- b. For the DP Focus (c) interpretation, the initial demonstrative is generally not a spatial deictic.
- c. For the DP Focus (c) interpretation, a non-spatially deictic demonstrative can also *follow* the focused DP (but not generally occur in both positions).
- d. For the Demonstrative Focus (a) and Demonstrative *i?* DP focus (b) interpretations, an *additional*, non-spatially deictic demonstrative can always occur initially.
- e. For simple DP-DP structures, an *additional*, non-spatially deictic demonstrative can always occur initially.
- f. Clefts with a proper name in focus position *only* allow the DP focus interpretation (c), since demonstratives do not form constituents with proper names.

I suggest that the availability and optionality of non-spatially deictic demonstra-

---

<sup>4</sup>‘Non-spatially deictic’ demonstratives, or ‘deictically-weak’ demonstratives may be analyzable as discourse deictics in some instances, as I discuss in section 8.6.2.

tives under all three interpretations, as well as with DP-DP structures, supports a unified analysis of all three interpretations as underlyingly equative (8.5.1).

I claim that the initial non-spatially deictic *ixíʔ* demonstrative originates as a constituent with the equative complement, and procliticizes to the focused DP in initial position (8.5.2).<sup>5</sup> This claim is supported by a variant of DP-DP structures and clefts whereby the oblique marker *t* rather than the determiner *iʔ* introduces the final DP. Proclisis is for stylistic effect, possibly prosodically motivated, and serves to highlight the constituent in contrastive focus. Clefts with initial demonstratives and those with demonstratives in their base-generated position (DP-DP structures) are truth-conditionally and pragmatically equivalent. Demonstrative proclisis is a widespread phenomenon in Okanagan, and not limited to sentence-types which involve structural focus. I then discuss clefts which appear to have bare demonstratives in focus position, and weigh evidence as to whether these cases actually involve a null focus (8.5.3). Finally, I discuss data showing that demonstrative-associated DPs allow intensional readings support an equative analysis of Okanagan clefts (8.5.4).

Before closing this chapter, I present my analysis of Okanagan clefts with several sample derivations (8.6), and a discussion of how Okanagan offers syntactic and semantic support for cleft theories such as Percus (1997). Finally, I summarize the findings of this chapter (8.7).

I include two addenda to this chapter. First, I include a section which shows that NP residues may be analyzed in some cases as projecting clausal structure (8.8). The idea is supported by future clefts, i.e. clefts for which a residue is introduced by the future marker *mi* rather than a determiner. This analysis potentially extends to simple nominal *iʔ* DPs in residue position. Second, I present data on a type of cleft involving an adjunct, rather than an argument, in focus position (8.9). Adjunct clefts are not straightforwardly amenable to the equative analysis.

---

<sup>5</sup>Non-spatially deictic demonstratives may in fact be discourse deictics, which is a hypothesis I advance below in section 8.6.2.

## 8.2 Introducing Introduced Clefts in Okanagan and Across Salish

The purpose of this section is to briefly review clefts in other Salish languages, to show how Okanagan cleft structures compare, and to present some basic morpho-syntactic facts about Okanagan clefts.

### 8.2.1 The Classical Analysis: A Tripartite Structure

'Introduced' clefts (Kroeger, 1999) in Salish are generally structures where a DP occurs in 'focus position', and is introduced by a dedicated clefting predicate, a copula of sorts, as in the Lillooet example in (4a) and the Thompson example in (4b), below. A residue clause, analyzed as a CP by Davis et al. (2004) for Lillooet and Northern Straits and Koch (2008a) for Thompson, follows the DP constituent in focus position. Bold-type indicates focus. This tripartite structure is represented schematically for (4a,b) as (5a,b) along with the descriptive terminology that I will use.<sup>6</sup>

- (4) a. niʃ [ʃ-John<sub>DP</sub>] ta kʷan-talí-ha ta káħ-š-a  
CLEFT NOM-John DET take-NST-EXIS DET car-3.POSS-EXIS  
š-Mary.  
NOM-Mary  
It's **John** that took Mary's car. (Lillooet, Henry Davis, p.c.)
- b. ʕe [ʃ Róss<sub>DP</sub>] e pín̥t-ət-mus.  
CLEFT DET Ross DET paint-DIR-3.ERG.EXTR  
It was **Ross** that painted it. (Thompson, Koch (2008b, 2))
- (5) a. [niʃ]<sub>clefting predicate</sub> [ʃ-John]<sub>focus position</sub> [ta kʷan-talí-ha ta káħ-š-a š-Mary]<sub>residue</sub>.
- b. [ʕe]<sub>clefting predicate</sub> [ʃ Róss]<sub>focus position</sub> [e pín̥t-ət-mus]<sub>residue</sub>.

<sup>6</sup>Henry Davis (p.c.) notes that example (4) is the corrected form of sentence (14) in Davis et al. (2004, 106).

## 8.2.2 Introduced Clefts in Okanagan

Okanagan also exhibits a class of sentences which are directly analogous to Lillooet and Thompson (4); however there is no dedicated clefting predicate in the language. Instead, canonical Okanagan clefts are introduced by a distal demonstrative *ixíʔ*, which is not always pronounced, as represented in (6a). The basic structure of (6a), under a tripartite analysis, is given as (6b).

- (6) a. Context: I saw a deer and a bear on a stroll through the woods today, you did not see the bear but rather the deer.

(ixíʔ) [iʔ sʰaʔcínəm<sub>DP</sub>] iʔ wik-ənt-x<sup>w</sup>.

CLEFT DET deer DET see-DIR-2SG.ERG

DP Focus: It's the **deer** you saw.

- b. [(ixíʔ)]<sub>clefting demonstrative</sub> [iʔ sʰaʔcínəm]<sub>focus position</sub> [iʔ wikəntx<sup>w</sup>]<sub>residue</sub>.

There are questions which arise from data like (6):

- a. Is the demonstrative *ixíʔ* in (37a) a clefting predicate or copula, analogous to Thompson *ʕe* (4b) and Lillooet *nił* (4a)?
- b. Given that the clefting demonstrative in (6a) is optional, can (6a) be analyzed as a cleft?

The answers to question (a) is 'no'.<sup>7</sup> Okanagan clefting demonstrative *ixíʔ* is probably cognate with the demonstrative *xeʔ* in Thompson, which often encliticizes to the clefting particle *ʕe* (7a), and clearly cognate with the Shuswap demonstrative *yəʔíʔ* which is optional (7b) in the same contexts as the Okanagan demonstrative (6a).<sup>8</sup>

<sup>7</sup>Proximal *axáʔ* does not typically function as a 'clefting' demonstrative, but when it occurs in clefts, it is normally in focus position. A sequence of two occurrences of *ixíʔ* is theoretically possible, but presumably filtered out by a general anti-haplology filter banning adjacent instances of the same lexical item. Sequences of *ixíʔ axáʔ* are possible, with *axáʔ* invariably being in focus.

<sup>8</sup>I discuss in more detail clefts in other Salish languages in the implications section of the conclusion chapter, 9.3.

- (7) a. 'cé xe? [e **Monique**<sub>DP</sub>] e wik-t-ne.  
 CLEFT DEM DET Monique DET see-DIR-1SG.ERG  
 It was **Monique** that I saw. (Thompson, Koch (2008b, 7))
- b. (yəxíʔ) [ɣ **sqélmx<sup>w</sup>**<sub>DP</sub>] yiʔ ɣ wik-t-s.  
 DEM DET man DEM DET see-DIR-3SG.ERG  
 It's **the man** that she saw. (Shuswap, Gardiner (1993, 76-78))

Since the Thompson pattern shows that a clefting predicate can co-occur with a clefting demonstrative, I suggest that for Shuswap and Okanagan, the clefting predicate itself is null. This is consistent with the hypothesis that there is a null equative head involved in Okanagan clefts, and that this null equative head *is* the clefting predicate.<sup>9</sup>

The distribution of clefting predicates and clefting demonstratives across these four Interior Salish languages is as follows:

**Table 8.1:** Clefting Predicates and Demonstratives across Four Interior Salish Languages

|                    | Okanagan | Shuswap | Thompson | Lillooet |
|--------------------|----------|---------|----------|----------|
| clefting predicate | ∅        | ∅       | 'cé      | nilh     |
| demonstrative      | ixíʔ     | yəxíʔ   | xeʔ      | ∅        |

In answer to the second question then, Okanagan sentences like (6) fit into a wider typology of sentences which are known as ‘clefts’ in the Salish literature, and so it makes sense to refer to these sentences as ‘clefts’ as well.

### 8.2.3 DP Types and DP Focus

Any kind of DP can occur in the focus position of a cleft, including *iʔ* DPs (8), proper names (9) and demonstratives (10). The initial non-spatially deictic clefting demonstrative is always a possibility, but never a requirement.

<sup>9</sup>This implies that the clefting predicates in Lillooet and Thompson are spellouts of a null equative head. Koch (2008a) analyzes Thompson *'cé* as essentially a predication copula with an associated implicature of existence. See section 9.3.2 for discussion.

- (8) a. (ixíʔ) **iʔ ylmíx<sup>w</sup>əm** iʔ k<sup>w</sup>u wik-s.  
 DEM DET chief DET 1SG.ABS see-[DIR]-3SG.ERG  
 It's the **chief** who saw me.
- b. (ixíʔ) **iʔ smaʔmím** aʔ c-q<sup>w</sup>əl-q<sup>w</sup>íl-st-ən.  
 DEM DET women DET CUST-RED-speak-(CAUS)-1SG.ERG  
 It's the **women** I was talking to.
- c. (ixíʔ) **iʔ sqilx<sup>w</sup>** iʔ wík-ən, lut iʔ  
 DEM DET Indian person DET see-[DIR]-1SG.ERG NEG DET  
 sámaʔ.  
 white person  
 It's **Indian people** I saw, not white people.
- (9) a. (ixíʔ) **Ron** iʔ q<sup>w</sup>əl-q<sup>w</sup>íl-st-ən.  
 DEM Ron DET RED-speak-CAUS-1SG.ERG  
 It's **Ron** that I talked to.
- b. (ixíʔ) **Spike** iʔ k<sup>w</sup>u ʃlit-s  
 DEM Spike DET 1SG.ABS invite-[DIR]-3SG.ERG  
 i-ks-kʔamɪn[ʔ]-iwt-əm ʃaʔ q<sup>w</sup>əl-q<sup>w</sup>ílt.  
 1SG.POSS-FUT-stand.next.to-MID COMP RED-speak  
 It's **Spike** who invites me to stand beside him when he speaks.
- (10) a. (ixíʔ) **axáʔ** iʔ lpot aʔ c-k<sup>w</sup>úl-əm-st-ən.  
 DEM DEM DET cup DET CUST-make-MIN-CAUS-1SG.ERG  
 It's **this** cup that I was using.
- b. (ixíʔ) **axáʔ** iʔ sənktʃaʔsqáxaʔ iʔ ks-ʃ<sup>w</sup>úp-aʔx.  
 DEM DEM DET horse DET FUT-win-INCEPT  
 It's **this** horse that is going to win.
- c. way (ixíʔ) **axáʔ** (iʔ) i-ks-c-k<sup>w</sup>úl.  
 yes DEM DEM (DET) 1SG.POSS-FUT-CUST-make  
**This** is what I'm gonna do.

Notice that without the initial demonstrative, these clefts clearly resemble equative



DP-DP structures, except for the fact that the second constituent contains or consists of clausal material. I now turn to the information structure of clefts, which provides evidence that they are equivalent to DP-DP structures.

## 8.3 Information Structure and Clefts

This chapter discusses the information structural properties of clefts. I show that these properties are the same as those found in DP-DP structures, as discussed in the previous chapter. This makes clefts information-structurally amenable to the equative analysis I outlined in the previous chapter.

### 8.3.1 Structural Focus

English clefts are clearly connected to some broader notion of focus, as are clefts in Okanagan and other Salish languages. The propositional content of an English cleft is equivalent to that found in a non-cleft version of the same sentence (Reeve, 2011), however there is an information structural difference: a clefted constituent receives contrastive (a.k.a. identificational) focus (Rochemont, 1986; Kiss, 1998).

Similar facts hold for Okanagan clefts. The demonstrative-focused cleft in (11a) is truth-conditionally equivalent to the non-cleft form (11b), however there is an information structural difference: the demonstrative *ixíʔ* ‘that’ is a focus in (11a), but not in (11b), which is a garden variety transitive sentence involving an initial demonstrative-associated DP object (cf. 3.3).

- (11) a. Context: You saw a specific deer earlier and now you’re seeing it again.

**ixíʔ** iʔ sʰaʔcínəm iʔ wik-nt-x<sup>w</sup>.  
 DEM DET deer DET see-DIR-2SG.ERG  
**That’s** the deer you saw.

- b. ixíʔ iʔ sʰaʔcínəm wik-nt-x<sup>w</sup>.  
 DEM DET deer see-DIR-2SG.ERG  
 You saw that deer.

Given the morphosyntactic and interpretive differences between (11a) and (11b), it is reasonable to argue that (11a) involves structural focus, whereas (11b) does not.

The morphosyntactic correlate of a structural focus position in the case of (11a) is the fact that an *i?* determiner precedes a clausal predicate.<sup>10</sup> DP-DP structures have exactly the same property, as described in chapter 7.

I claim that clefts share the same information structure as DP-DP structures: (i) they carry an exhaustivity implicature which is cancellable (8.3.2, cf. 7.4.1); (ii) there is no presupposition of existence tied to an Okanagan cleft (8.3.3); and (iii) the DP in focus must precede the residue (8.3.4). I then contrast introduced clefts with nominal predicate constructions, and argue that these may be analyzed as direct predications (8.3.5).

### 8.3.2 The Exhaustivity Implicature in Clefts and Contrastive Focus

As first observed by Davis et al. (2004), clefts in Northern Straits Salish and Lillooet lack the exhaustivity presupposition which is characteristic of English clefts (12).<sup>11</sup> In this regard, Okanagan patterns similarly to the languages investigated by Davis et al. (2004).

- (12) *It is* [ $\alpha$ ]<sub>FOC</sub> *that has the property*  $\Pi$   
presupposes  $\forall x[\Pi(x) \longrightarrow x = \alpha]$  (only  $\alpha$  has the property  $\Pi$ )

For Okanagan, a cleft must be used in contexts which require an exhaustive interpretation. This is directly parallel to the distinction between DP-DP and subject-initial direct predications (cf. 7.4.1). The questions in (13-14) involve subject focus, and require an exhaustive answer. Because they are not clefts, (13b) was judged infelicitous in this context (either with or without an initial demonstrative), as was (14c).

- (13) Context: One person got up early to leave the meeting.  
Question: Is Bill the one who left?

<sup>10</sup>This means that (11a) lacks any categorially predicative constituent in the main clause (except for the null equative head): Transitive *wikəntx<sup>w</sup>* ‘you saw it’ is introduced by an *i?* determiner, which indicates that the predicate has been relativized. (11b), by contrast, does not involve structural focus, and has a clear main-clause predicate *wikəntx<sup>w</sup>* ‘you saw it’.

<sup>11</sup>See section 2.4.2 where I discuss the issue of whether exhaustivity is an entailment or presupposition of English clefts. Since the choice between these is not crucial for my analysis of Okanagan clefts, I retain Percus’ (1997) original analysis whereby exhaustivity is a presupposition.

a. (ixíʔ) **John** iʔ nis, lut t̥ Bill.  
 (DEM) John DET left, NEG EMPH Bill  
**John** (is the one that) left, not Bill.

b. #(ixíʔ) John nis, lut t̥ Bill.  
 (DEM) John left, NEG EMPH Bill  
 John left, not Bill.

(14) Context: You heard about a meeting at the health office, only one person showed up, and you ask if Norman was that person.

a. ha **Norman** iʔ c-kic-x?  
 YNQ Norman DET CISL-arrive-INTR  
 Is **Norman** the one that got there?

b. kiw̃, **Norman** iʔ c-kic-x.  
 yes Norman DET CISL-arrive-INTR  
 Yes, **Norman** (is the one who) got there.

c. #kiw̃, Norman c-kic-x.  
 yes Norman CISL-arrive-INTR  
 Yes, Norman got there.

The determiner *iʔ* induces an exhaustivity implicature in these cases, exactly like the determiner which introduces the second DP in a DP-DP structure. Omitting the determiner, as in (13b) and (14c), yields a type of direct, verbal predication. In (13b), for example, *John* is in focus as an answer to the question, but the sentence as a whole does not carry an exhaustivity implicature, as required by the context.

Notice that in English, it is not necessary to use a cleft in response to the questions in (13-14). That is, the answer does not have to assume a special morpho-syntactic form. I speculated in section 7.4.1 that this requirement may be related to the fact that English can signal exhaustivity by pitch accenting within a sentence which does not have a dedicated structural focus position, while Okanagan does not have this strategy available, assuming that it is similar to Thompson (Koch, 2008a) in *not* using pitch accenting for focus. This interesting difference between English and Okanagan merits further study.

In answer to questions which do not involve subject DP focus (15), the *i?* determiner is possible, but not required. With an *i?* determiner, as in (15c) for example, the speaker is implying that John is the only one that went.

(15) Context: There was a meeting up at the health office, and I'm wondering if John went.

a. ha John x<sup>w</sup>uy k[ɪ] c-q<sup>w</sup>a?-q<sup>w</sup>?ál?  
 YNQ John go LOC CUST-RED-speak  
 Did John go to the meeting?

b. way', John x<sup>w</sup>uy.  
 yes John go  
 Yes, John went.

c. way', (ixí?) **John** i? x<sup>w</sup>uy.  
 yes (DEM) John DET go  
 Yes, **John** is the one who went.

For Okanagan clefts, exhaustivity is not a presupposition (Percus, 1997; Hedberg, 2000), but only an implicature (Davis et al., 2004). In (16c), the implicature that John is the only one who stole a cookie is cancelled by the following conjunct, in which it is asserted that Peter also stole a cookie. The equivalent of (16c) in English is infelicitous.

(16) a. swit i? náq<sup>w</sup>-əm-s i? t̥əxt.  
 who DET steal-MID-3SG.POSS DET sweet  
 Who stole the cookie?

b. John náq<sup>w</sup>-əm-s i? t̥əxt uł nix<sup>w</sup> Peter naq<sup>w</sup>  
 John steal-MID-3SG.POSS DET sweet CONJ also Peter steal.INTR  
 t̥ t̥əxt.  
 OBL sweet

**John** stole a cookie, and **Peter too** stole a cookie.

(adapted from (Krifka, 2008, 253))

- c. **John** iʔ náqʷ-əm-s iʔ təxt uʔ nixʷ **Peter**  
 John DET steal-MID[?]-3SG.POSS DET sweet CONJ also Peter  
 iʔ naqʷ t təxt.  
 DET steal(INTR) OBL sweet  
 #It's **John** who stole a cookie, and **Peter too** stole a cookie.  
 (adapted from (Krifka, 2008, 253))

Taken together, the data in (13-16) show that a cleft structure is required for an exhaustive interpretation (cf. Thoma (2007) for similar facts in Lillooet), but exhaustivity is not presupposed or entailed. (17b) below confirms that Okanagan clefts do not presuppose or entail exhaustivity, but that exhaustivity can be entailed by adding *kmax* 'only' (17c).<sup>12</sup>

- (17) a. swít iʔ ʔilxʷt?  
 who DET hungry  
 Who is hungry?
- b. ixíʔ iʔ s-maʔ-mʔím aʔ c-ʔal-ʔilxʷt, uʔ nixʷ  
 DEM DET NOM-RED-women DET CUST-RED-hungry CONJ also  
 iʔ s-qəl-qəltmíxʷ.  
 DET NOM-RED-man  
 It's the **women** that are hungry, and also the **men**.  
 (adapted from Davis et al. (2004, 109-110))

<sup>12</sup>In at least three Interior Salish languages (Lillooet, Thompson, and Okanagan), the equivalent of 'only' consists of a predicate and an emphatic clitic. It may be the case that in Okanagan, emphatic *iʔ* contributes the exhaustivity entailment rather than *kmix* 'only', as shown by the infelicity of (i) below, though the semantic and information structural contribution of each particle remains unclear at this point.

- (i) \*íi iʔ s-maʔ-mʔím aʔ c-ʔal-ʔilxʷt, uʔ nixʷ iʔ  
 EMPH DET NOM-RED-women DET CUST-RED-hungry CONJ also DET  
 s-qəl-qəltmíxʷ.  
 NOM-RED-man  
 It's only the women that are hungry, and also the men.

In Lillooet, *tsukw* 'only' rather than emphatic *t'u7* appears to be the main carrier of exhaustivity (Henry Davis, p.c.), similarly to the cognate particles in Thompson (cf. Koch and Zimmermann (2009)).

c.  $\dot{t}i$   $kmax$   $i?$   $s-ma?-m?im$   $a?$   $c-?al-?ilx^w t$ .  
 EMPH only DET NOM-RED-women DET CUST-RED-hungry  
 It's only the **women** that are hungry.  
 (adapted from Davis et al. (2004, 109-110))

d.  $\#ti$   $kmax$   $i?$   $s-ma?-m?im$   $a?$   $c-?al-?ilx^w t$ ,  $u\ddot{t}$   
 EMPH only DET NOM-RED-women DET CUST-RED-hungry CONJ  
 $nix^w$   $i?$   $s-q\ddot{a}l-q\ddot{a}l t m\acute{i}x^w$ .  
 also DET NOM-RED-man  
 #It's only the **women** that are hungry, and also the **men**.  
 (adapted from Davis et al. (2004, 109-110))

The interaction between the focus-sensitive operator *kmax* 'only' and the constituent in focus is an interesting issue worth exploring for Okanagan, but goes beyond the scope of this thesis.

### 8.3.3 Clefts are Non-presuppositional

Okanagan clefts also lack the presupposition of existence usually associated with English clefts (18). This has already been observed for Northern Straits and Lillooet by Davis et al. (2004), and for Thompson in Koch (2008a).

- (18) (Percus, 1997, 339)  
 In a cleft of the form *It is  $[\alpha]_{FOC}$  that has the property  $\Pi$* ,  
 there is a presupposition that  $\exists x\Pi(x)$   
 (there exists some individual that has the property  $\Pi$ ).

The residue clause of (19b) *nk'ámtíwsəmən* 'I rode *pro*' is not presupposed information, considering the question under discussion. Note that the English equivalent to (19b) is unacceptable as an answer to (19a), because of a presupposition that 'I rode *something*' which is not satisfied in this particular context.

- (19) a.  $stim$   $an-cáwt$   $\text{ʔapná?}$   $s\acute{x}əl\acute{x}\acute{f}ált?$   
 what 2SG.POSS-doings now day  
 What did you do today?

- b. ixíʔ iʔ sənkl̥caʔsqáʃaʔ iʔ n-k-ʔámt-íws-əm-ən.  
 DEM DET horse DET n-sit-middle-MIN-[DIR]-1SG.ERG  
 I rode that horse.  
 (Literally, ‘That’s the horse that I rode’ or ‘It’s the horse that I rode’.)

By way of another example, *qʷlíwəm* ‘berry-picking’ is given information in the context set up by the question in (20a), but it is not presupposed that any actual berry-picking occurred.

- (20) a. ha kʷ qʷlíw-əm ʔapnáʔ sʃəlʃʔáltʔ  
 YNQ 2SG.ABS pick.berries-MID now day  
 Did you pick berries today?
- b. ixíʔ iʔ s-pýq-aʔq (iʔ) i-s-qʷlíw.  
 DEM DET NOM-ripe-fruit (DET) 1SG.POSS-NOM-pick.berries  
 I picked those berries.  
 (Literally: Those berries are what I picked, or, It’s those berries that I picked.)

The data in (21) below show that clefting is optional in both non-presuppositional (21a) and presuppositional (21b) contexts. When there is no *iʔ* determiner in the response, the structure is not a cleft, but a regular predication, possibly involving unmarked fronting of a DP argument.<sup>13</sup>

- (21) a. Context: Friend/Addressee is visibly upset.  
 kʷ sxʔkínxʔ  
 2SG.ABS what.happened  
 What happened to you?
- b. Context: Friend sees that the addressee’s garden has been eaten.

<sup>13</sup>The fact that clefting is optional in answer to (21b) is similar to the data given as (15) in the previous sub-section. Clefting is required for an exhaustive interpretation, but clefting does not entail exhaustivity. By clefting in answer to (21b), the speaker is implying that the deer is the only individual that ate his plants, however since clefting is optional here, it can be inferred that the context does not require exhaustivity.

stim iʔ ʔit-(t)t-əm-s a-s-kʷán-tq?  
 what DET eat-APPL[?]-MID-3SG.POSS 2SG.POSS-NOM-grow-crop  
 What ate your plants?

- c. iʔ sʰaʔcínəm (iʔ) kʷu ʔit-(t)t-s  
 DET deer (DET) 1SG.ABS eat-APPL[?]-MID-3SG.POSS  
 i-s-kʷán-tq.  
 1SG.POSS-NOM-plant-crop  
 A deer ate my plants. (good as answer to 21a and 21b).

It should be noted that it is within the realm of possibility that Okanagan clefts (and DP-DP structures) *do* in fact carry an existential presupposition, but that Okanagan speakers accommodate this presupposition more easily than English speakers do. Because I am aligning the semantics and pragmatics of clefts to the semantics and pragmatics of the determiner *iʔ*, there is good evidence that *iʔ* is non-presuppositional, and parameterizing accommodation seems unlikely, I do not pursue this hypothesis (cf. also Matthewson (2006a) on the absence of presuppositions in Lillooet).

### 8.3.4 Focus Cannot Fall Finally

Just as with DP-DP structures, the DP in focus in an Okanagan cleft cannot occur finally:<sup>14</sup>

- (22) Answer to the question ‘Who is the Shuswap you talked to?’

- a. (ixíʔ) **Ron** iʔ syxʷáp-məx iʔ qʷəl-qʷíl-st-ən.  
 DEM Ron DET Shuswap-person DET RED-speak-CAUS-1SG.ERG  
 It’s **Ron** who is that Shuswap I talked to.
- b. \*(ixíʔ) iʔ syxʷáp-məx iʔ qʷəl-qʷíl-st-ən **Ron.**  
 DEM DET Shuswap-person DET RED-speak-CAUS-1SG.ERG Ron  
 That Shuswap I talked to is **Ron**.

<sup>14</sup>See Koch (2008a, 225) who makes the same point for Thompson.



(23) a. (ixíʔ) iʔ sqilx<sup>w</sup> iʔ wík-ən, lut iʔ  
 DEM DET native.person DET see-[DIR]-1SG.ERG NEG DET  
 sámaʔ.

white.person

The ones I saw were **native people**, not white people.

b. \*(ixíʔ) iʔ wík-ən iʔ sqilx<sup>w</sup>, lut iʔ  
 DEM DET see-[DIR]-1SG.ERG DET native.person NEG DET  
 sámaʔ.

white.person

The ones I saw were **native people**, not white people.

This pattern stands in contrast to nominal predicate constructions (NPCs), where a predicative NP is typically though not always in focus, yet can occur in either initial or final position. For Okanagan NPCs, because the ordering of predicate and argument constituents in contexts involving WH-questions is relatively unconstrained (cf. section 7.3.1), I take this as evidence that these are direct predications. I now discuss NPCs in some detail.

### 8.3.5 Contrasting Clefts with Nominal Predicate Constructions

In this section, I compare the information structural properties of introduced clefts, as just discussed, with nominal predicate constructions (a.k.a. ‘bare clefts’), which I consider to be a sub-type of direct predication, on the grounds that (i) either the predicate or the argument can be a focus, (ii) the ordering of predicate and argument constituents in contexts involving WH-questions is relatively unconstrained, and (iii) there is no implicature of exhaustivity.

The simplest NPCs involve a nominal predicate taking a DP as a subject argument (24), which may either follow or precede the predicate (cf. section 7.3.1).

- (24) a. qʷɤay-lqs iʔ ʔəʔ-ʔəʔá.  
 black-robe DET RED-grown  
 The old man is a priest.
- b. iʔ ʔəʔ-ʔəʔá qʷɤay-lqs.  
 DET RED-grown black-robe  
 The old man is a priest.

Nominal predicates may also select headed post-nominal (25b) or pre-posed (25c) relative clauses as arguments, as well as headless relative clauses (26-27).<sup>15</sup> These types of NPCs are sometimes known as ‘bare clefts’ in the Salish literature (Kroeger, 1999).<sup>16</sup>

- (25) a. stim t skəkɤákaʔ aʔ c-wik-st-xʷ?  
 what OBL bird DET CUST-see-CAUS-2SG.ERG  
 What are those birds that you saw?
- b. pəqlqín iʔ skəkɤákaʔ iʔ wík-ən.  
 eagles DET birds DET see-[DIR]-1SG.ERG  
 The birds that I saw are eagles.
- c. pəqlqín [iʔ] i-s-c-wík iʔ skəkɤákaʔ.  
 eagle [DET] 1SG.POSS-NOM-CUST-see DET birds  
 The birds that I saw are eagles.
- (26) a. stim iʔ wíkəntxʷ?  
 what DET see-DIR-2SG.ERG  
 What did you see?
- b. ʔʷɤiʔ iʔ wík-ən.  
 mountain.goat DET see-[DIR]-1SG.ERG  
 A mountain goat is what I saw.

<sup>15</sup>See sections 4.3 and 6.3 for discussion of headless relative clauses.

<sup>16</sup>The alternation between *iʔ* and *t* in question contexts such as (49a) is not well understood, though there may be a subtle semantic difference, possibly related to the alternation between *iʔ* and *t* in cleft contexts.

- (27) a. haʔkín iʔ    ʔəǰ-ʔǰáp    iʔ    qʷəl-qʷíl-st-xʷ?  
           which DET RED-grown DET RED-speak-CAUS-2SG.ERG  
           Which old man did you talk to?
- b. syxʷáp-məx    iʔ    qʷəl-qʷíl-st-ən.  
           Shuswap-person DET RED-speak-CAUS-1SG.ERG  
           A Shuswap was the one that I talked to.

(25-27) are straightforward variants of the simpler NPCs in (24), the only difference being that the nominal predicate is taking a relative clause (either headed or headless) as a direct argument.

A relative clause within an NPC may be inflected with either ergative subject morphology (e.g. 25b) or nominalized, possessor subject morphology (e.g. 25c). For NPCs involving headless relative clauses in argument position, however, ergative-marked transitive relative clauses are often judged ungrammatical, as the examples in (28) show (but cf. grammatical 26a,b):<sup>17</sup>

- (28) a. \*sʔaʔcínəm iʔ    wik-nt-xʷ.  
           deer            DET see-DIR-2SG.ERG  
           A deer is what you saw.
- b. \*sʷarákxn iʔ    wík-ən  
           frog            DET see-[DIR]-1SG.ERG  
           A frog is what I saw.

As predicted under a direct predication analysis, NPCs with relative clauses in argument position also permit variable subject/predicate ordering (30):

- (29) haʔkín iʔ    ʔəǰ-ʔǰáp    iʔ    qʷəl-qʷíl-st-xʷ?  
           which DET RED-grown DET RED-speak-CAUS-2SG.ERG  
           Which old man did you talk to?

<sup>17</sup>This may represent a general dispreference for ergative-centered relative clauses (Kroeger, 1999, 305).

- (30) a.  $\text{syx}^w\acute{\text{ap}}\text{-m}\acute{\text{x}}\text{-}\acute{\text{ə}}\text{l}\text{x}$      $i?$      $\acute{\text{x}}\acute{\text{ə}}\acute{\text{x}}\text{-}\acute{\text{x}}\acute{\text{x}}\acute{\text{á}}\text{p}$      $i?$   
 Shuswap-person-3PL DET RED-RED-grown DET  
 $q^w\acute{\text{ə}}\text{l-}q^w\acute{\text{í}}\text{l-st-}\acute{\text{ə}}\text{n}$ .  
 RED-speak-CAUS-1SG.ERG  
 Shuswaps were the old men that I talked to.
- b.  $i?$      $\acute{\text{x}}\acute{\text{ə}}\acute{\text{x}}\text{-}\acute{\text{x}}\acute{\text{x}}\acute{\text{á}}\text{p}$      $a?$      $c\text{-}q^w\acute{\text{ə}}\text{l-}q^w\acute{\text{í}}\text{l-st-}\acute{\text{ə}}\text{n}$   
 DET RED-RED-grown DET RED-speak-CAUS-1SG.ERG  
 $\text{syx}^w\acute{\text{ap}}\text{-m}\acute{\text{x}}\text{-}\acute{\text{ə}}\text{l}\text{x}$ .  
 Shuswap-person-3PL  
 The old men that I talked to were Shuswaps.
- (31) a.  $\text{syx}^w\acute{\text{ap}}\text{-m}\acute{\text{x}}$      $ixí?$      $i?$      $\acute{\text{x}}\acute{\text{ə}}\acute{\text{x}}\text{-}\acute{\text{x}}\acute{\text{x}}\acute{\text{á}}\text{p}$      $i?$      $q^w\acute{\text{ə}}\text{l-}q^w\acute{\text{í}}\text{l-st-}\acute{\text{ə}}\text{n}$ .  
 Shuswap-person DEM DET RED-grown DET RED-speak-CAUS-1SG.ERG  
 Those old men I talked to are Shuswaps.
- b.  $ixí?$      $i?$      $\acute{\text{x}}\acute{\text{ə}}\acute{\text{x}}\text{-}\acute{\text{x}}\acute{\text{x}}\acute{\text{á}}\text{p}$      $i?$      $q^w\acute{\text{ə}}\text{l-}q^w\acute{\text{í}}\text{l-st-}\acute{\text{ə}}\text{n}$   
 DEM DET RED-grown DET RED-speak-CAUS-1SG.ERG  
 $\text{syx}^w\acute{\text{ap}}\text{-m}\acute{\text{x}}$ .  
 Shuswap-person  
 Those old men I talked to were Shuswaps.

Headless relative clause arguments of nominal predicates (cf. 26) are more marginal than headed relative clause arguments in elicitation contexts; however, these are also possible and sometimes volunteered, as the following question/answer pairs show. This distribution helps confirm the status of the determiner-introduced clauses in NPC contexts as DP arguments.<sup>18</sup>

<sup>18</sup>The argument-indicating, reduced determiner preceding the nominalized clause *iscwik* ‘my seeing’ in the answers to (32) is inferable from the absence of a determiner preceding the nominal *tkłmilx<sup>w</sup>* ‘woman’. (Recall that *i?* regularly reduces before 1st and 2nd person possessive prefixes.) This is because sentences consisting of two predicative elements are ungrammatical in Okanagan, e.g.:

- (i)  $*\acute{\text{x}}\acute{\text{ə}}\acute{\text{x}}\text{-}\acute{\text{x}}\acute{\text{x}}\acute{\text{á}}\text{p}$   $q^w\acute{\text{í}}\text{aylqs}$ .  
 old.man priest  
 The old man is a priest.

- (32) a. Q: swit [iʔ] a-s-c-wík?  
           who [DET] 2SG.POSS-NOM-CUST-see  
           Who did you see?
- b. A1: tkłmilx<sup>w</sup> [iʔ] i-s-c-wík.  
               woman [DET] 1SG.POSS-NOM-CUST-see  
               I saw a woman. (Literally: Woman is the thing that was my seeing.)
- c. A2: [iʔ] i-s-c-wík tkłmilx<sup>w</sup>.  
               [DET] 1SG.POSS-NOM-CUST-see woman  
               I saw a woman. (Literally: The thing that was my seeing is woman.)

Under the assumption that focus may be identified as the answer to a WH-question (Jackendoff, 1972; Selkirk, 1995), the answers in (30-32) show that like direct predications, focus in an NPC is not necessarily aligned to the left-edge of the sentence in Okanagan, in contrast to introduced clefts and DP-DP structures, and in contrast to Thompson NPCs and introduced clefts as elucidated by Koch (2008a).<sup>19</sup>

Despite data like (32) however, focus-final structures involving headless relative clause subjects are usually unacceptable (33c).

- (33) a. Q: stiṃ (iʔ) a-s-c-wík?  
           what (DET) 2SG.POSS-NOM-CUST-see  
           What did you see?
- b. A1: ʃ<sup>w</sup>ʃiʔ [iʔ] i-s-c-wík.  
               mountain.goat [DET] 1SG.POSS-NOM-CUST-see  
               I saw a mountain goat.
- c. A2: \*[iʔ] i-s-c-wík ʃ<sup>w</sup>ʃiʔ.  
               [DET] 1SG.POSS-NOM-CUST-see mountain.goat  
               I saw a mountain goat.

<sup>19</sup>Koch (2008a) found that fronted subjects in Thompson NPCs are in a separate intonation phrase. As such, a focused predicate in final position may still be left-most within its intonation phrase. See section 9.3.4 for further discussion.

Compare also (34a) which has an initial headed relative clause DP subject with (34b) which has an initial headless relative clause as a subject. The dispreference for (33c) and (34b) may perhaps be more succinctly captured by the generalization that headless relative clauses may not easily precede their predicates.

- (34) a.  $i\text{?}$   $\acute{\lambda}\acute{\alpha}\acute{\chi}\text{-}\acute{\alpha}\acute{\chi}\text{-}\acute{\lambda}\acute{\chi}\acute{\alpha}\acute{p}$   $a\text{?}$   $c\text{-}q^w\acute{\alpha}l\text{-}q^w\acute{\imath}l\text{-}st\text{-}\acute{\alpha}n$   
 DET RED-RED-grown DET CUST-RED-speak-CAUS-1SG.ERG  
 $syx^w\acute{\alpha}p\text{-}m\acute{\alpha}x\text{-}\acute{\alpha}lx.$   
 Shuswap-person-3PL  
 The old men that I talked to were Shuswaps.
- b.  $*a\text{?}$   $c\text{-}q^w\acute{\alpha}l\text{-}q^w\acute{\imath}l\text{-}st\text{-}\acute{\alpha}n$   $syx^w\acute{\alpha}p\text{-}m\acute{\alpha}x\text{-}\acute{\alpha}lx.$   
 DET CUST-RED-speak-CAUS-1SG.ERG Shuswap-person-3PL  
 The ones that I talked to were Shuswaps.

The structures I assume for Okanagan NPCs are given in (35-36). Assuming that headless relative clauses involve clause-internal movement of a DP consisting of a D plus an empty NP, the syntactic position of the overt determiner depends on which of the two determiners (the external one introducing the containing DP, or the internal one at the left periphery of the clause) is pronounced. I assume that the Double Determiner Filter of Davis (2010a, 22) ensures that only one of two adjacent Ds can be pronounced.<sup>20</sup>

- (35)  $p\acute{\alpha}qlq\acute{\imath}n$   $i\text{?}$   $sk\acute{\alpha}k\acute{\gamma}\acute{\alpha}ka\text{?}_j$   $[[i\text{?} [\emptyset_{NPj}]_{DPi}] w\acute{\imath}k\text{-}\acute{\alpha}n t_i CP].$   
 eagles DET birds DET see-[DIR]-1SG.ERG  
 The birds I saw were eagles.
- (36) a.  $syx^w\acute{\alpha}p\text{-}m\acute{\alpha}x$   $\emptyset$   $\emptyset_j$   $[[i\text{?} [\emptyset_{NPj}]_{DPi}] q^w\acute{\alpha}l\text{-}q^w\acute{\imath}l\text{-}st\text{-}\acute{\alpha}n t_i CP].$   
 Shuswap-people (DET) (NP) DET speak-CAUS-1SG.ERG  
 Shuswaps were the ones that I talked to.
- b.  $syx^w\acute{\alpha}p\text{-}m\acute{\alpha}x$   $i\text{?}$   $\emptyset_j$   $[[\emptyset [\emptyset_{NPj}]_{DPi}] q^w\acute{\alpha}l\text{-}q^w\acute{\imath}l\text{-}st\text{-}\acute{\alpha}n t_i CP].$   
 Shuswap-people DET (NP) (DET) speak-CAUS-1SG.ERG  
 Shuswaps were the ones that I talked to.

<sup>20</sup>See discussion of the Double Determiner Filter in section 6.3.3, where I motivate my analysis of relative clauses.

### 8.3.6 Summary

This section has shown that clefts, like DP-DP structures, lack an exhaustivity entailment or presupposition of existence, and that the constituent in focus cannot occur in final position. I take this as evidence that these two classes share a common underlying configuration. Clefts contrast with NPCs, which allow variable word order, like simple direct predications. In light of information structural parallels between DP-DP structures and clefts, I now discuss some syntactic parallels which support the hypothesis that Okanagan clefts are equative.

## 8.4 An Equative Analysis of Clefts

Given the information structural parallels between DP-DP structures and clefts, this section presents the basic analysis of clefts as equative. Okanagan clefts are straightforwardly amenable to the equative analysis because:

- a. Okanagan canonically introduces clefts with a demonstrative, rather than the dedicated clefting predicate characteristic of other Salish languages, such as Thompson (Kroeber, 1999; Koch, 2008a) or Lillooet (Davis et al., 2004).
- b. It is an independent fact about Okanagan grammar (and those of other Salish languages (Matthewson, 1998)) that demonstratives can form constituents with *i?* DPs (chapter 3). This means that the introductory demonstrative can be analyzed as a constituent with an *i?* DP in an equative.
- c. Although Okanagan residue CPs are surface indistinguishable from headless relative clause DPs, since both can be introduced by an *i?* determiner (cf. the mechanics of relative clause formation in chapter 6), cleft residues in Okanagan allow overt NP heads, unlike in Lillooet (Davis et al., 2004) or Thompson (Koch, 2009). This means that the residue clause can be analyzed as a DP constituent.

As such, the only surface distinction between DP-DP structures and clefts is that the second DP in a cleft contains a relative clause.<sup>21</sup> After presenting the basic

---

<sup>21</sup>This is not true for adjunct clefts, where the residue clause is not a DP, but I defer discussion of

analysis in this section, I discuss more complex data, and further evidence for an equative analysis of clefts in subsequent sections.

I begin with a discussion of structural and interpretive ambiguities in Okanagan clefts for which an *i?* DP occurs in focus position.

#### 8.4.1 A Structural and Interpretive Ambiguity

The fact that a demonstrative introduces Okanagan clefts results in an interpretive and structural ambiguity, as illustrated below in (37). In (37a-b), the demonstrative is deictic, and may either itself constitute the focused DP (37a) to the exclusion of the following headed relative clause DP, or else adjoin to a DP which is also in focus (37b). This variability is predicted since both lone demonstratives and demonstrative-associated DPs independently function as DPs in argument contexts. In (37c), the optional demonstrative is not a spatial deictic, but is similar to the English clefting particle *it*.

- (37) a. Context 1: You saw one distinctive looking deer earlier and now you're seeing it again.

[ixí? <sub>DP</sub>] i? sʰaʔcínəm i? wík-ənt-xʷ.  
 DEM DET deer DET see-DIR-2SG.ERG  
 Demonstrative Focus: **That's** the deer you saw.

- b. Context 1: You saw one distinctive looking deer earlier and now you're seeing it again.

[ixí? [i? sʰaʔcínəm <sub>DP</sub>]<sub>DP</sub>] i? wík-ənt-xʷ.  
 DEM DET deer DET see-DIR-2SG.ERG  
 Demonstrative-DP Focus: **That deer** is the one you saw.

- c. Context 2: I saw a deer and a bear on a stroll through the woods today, you did not see the bear but rather the deer.

(ixí?) [i? sʰaʔcínəm <sub>DP</sub>] i? wík-ənt-xʷ.  
 (DEM) DET deer DET see-DIR-2SG.ERG  
 DP Focus: It's **the deer** you saw.

---

these until the end of the chapter.



These three interpretations are defined and summarized as follows:

- (38) a. **Demonstrative Focus:** The initial demonstrative is in focus, to the exclusion of the following *i?* DP and residue clause.
- b. **Demonstrative DP Focus:** The demonstrative and a constituent *i?* DP (in ‘focus position’) are in focus, to the exclusion of the final clause.
- c. **DP Focus:** The *i?* DP is in focus, to the exclusion of the initial demonstrative and residue clause.

Given information structural parallels between DP-DP structures and clefts, I suggest that the ‘demonstrative focus’ (a) and ‘demonstrative DP focus’ (b) interpretations are straightforwardly amenable to an equative analysis, and I show how in the next sub-section. The ‘DP Focus’ interpretation (c) is slightly more complicated, so I set this aside until section 8.5.

#### 8.4.2 Clefts as Equatives: The Basic Idea

This section presents my basic argument that the focused constituent of a cleft is equivalent to the initial focused DP in a simple equative sentence, and that the residue clause is a DP which can contain either a headed or headless relative clause.

I claim that for the ‘demonstrative focus’ interpretation (a), a headed relative clause DP is the residue and the demonstrative is in focus (39a); and for the ‘demonstrative *i?* DP focus’ interpretation (b), a headless relative clause DP is the residue, and a demonstrative-associated DP is in focus (39b). My proposed distribution of the null equative head is as indicated:

- (39) a. Context 1: You saw one distinctive looking deer earlier and now you’re seeing it again.

[ixi? <sub>DP</sub>] = [i? sʰaʔcínəm i? wík-ənt-x<sup>w</sup> <sub>DP</sub>].  
 DEM DET deer DET see-DIR-2SG.ERG

Demonstrative Focus: **That’s** the deer you saw.

- b. Context 1: You saw one distinctive looking deer earlier and now you’re seeing it again.

[ixíʔ [iʔ sʰaʔcínəm<sub>DP</sub>]<sub>DP</sub>] = [iʔ wík-ənt-x<sup>w</sup><sub>DP</sub>].  
 DEM DET deer DET see-DIR-2SG.ERG  
 Demonstrative-DP Focus: **That deer** is the one you saw.

The status of Okanagan residue clauses such as (39b) as DPs is not immediately obvious, since for headed relative clauses, an *iʔ* determiner usually introduces both the head and the clause (see chapter 6 for details, and preceding discussion on NPC structure). On the one hand, if we assume that the Double Determiner Filter is operative in cleft residues, a headless relative (cf. 39b) may be analyzed as a DP. Such an assumption must be qualified, however, especially in light of the fact that Koch (2008a, 105) analyzes Thompson cleft residues as CPs.

Koch's (2008) argument against a DP analysis of Thompson residues rests partially on the fact that they may not contain overt NP heads. In contrast to the case of Thompson, Lillooet, and Northern Straits Salish, however, an Okanagan residue clause can be overtly headed, as shown in (40b). (40) shows more clearly than (39) that the residue consists of a DP, since a proper name cannot form a constituent with an *iʔ* DP. This constitutes evidence that the residue clause in (40a) contains a *null* head, and therefore that the residue clause is categorially a DP.

(40) a. Answer to 'Who did you talk to?'

(ixíʔ) **Ron** = iʔ q<sup>w</sup>əl-q<sup>w</sup>íl-st-ən.  
 DEM Ron DET RED-speak-CAUS-1SG.ERG  
 That's **Ron** who (is the one) I talked to.

b. Answer to 'Who is the Shuswap you talked to?'

(ixíʔ) **Ron** = iʔ syx<sup>w</sup>áp-məx iʔ q<sup>w</sup>əl-q<sup>w</sup>íl-st-ən.  
 DEM Ron DET Shuswap-person DET RED-speak-CAUS-1SG.ERG  
 That's **Ron** who is the Shuswap I talked to.

Further evidence that the residue clause in an Okanagan cleft is a DP comes from clefts involving demonstrative focus (41a,b), particularly for a subset of cases which involve pre-posed relatives in residue position (41a). Data like (41a) show that analyzing the DP *iʔ sən<sup>xw</sup>əx<sup>w</sup>áyaʔqn* 'the tepee' in (41b) as a constituent with the pre-equative head demonstrative, to the exclusion of the residue clause, is not

viable.<sup>22</sup>

(41) Context: Pointing out a particular tepee from among a group of tepees.

a. **ixíʔ** = *iʔ* s-c-k<sup>w</sup>ul-s *iʔ* sən<sup>x</sup>wə<sup>x</sup>áyaʔqn.  
 DEM DET NOM-CUST-make-3SG.POSS DET tepee

**That's** the tepee he made.

b. **ixíʔ** = *iʔ* sən<sup>x</sup>wə<sup>x</sup>áyaʔqn *iʔ* s-c-k<sup>w</sup>ul-s.  
 DEM DET tepee DET NOM-CUST-make-3SG.POSS

**That's** the tepee he made.

The alternation between (41a) and (41b) is expected, given that pre-posed and post-nominal relative clause DPs are possible in non-equative contexts (cf. chapter 6). It is worthwhile noting that examples like (41a) are sometimes volunteered, but rarely judged grammatical in elicitation contexts. This fits with the general observation that pre-posed relative clauses are more marked than post-nominal relatives.

Finally, headed cleft residues show evidence for clause-internal movement, suggesting that these are true instances of relative clauses (42). Recall from section 6.3.3 that relative clauses from which a passive agent are extracted are introduced by the sequence *iʔ t*. This sequence codes the relation of the head NP to the relative clause predicate.<sup>23</sup>

(42) **ixíʔ** = *t* tkłmilx<sup>w</sup> *iʔ* *t* cú<sup>m</sup>-qs-nt-əm.  
 DEM OBL woman DET OBL suck-nose-DIR-PASS

**That's** the lady he was kissed by.

<sup>22</sup>It is important to note that there is no information structural ambiguity for clefts with pre-posed headed residues: the demonstrative is always in focus. If we were to propose that the initial demonstrative in (41a), for example, formed a constituent with the following headless relative clause *iʔ sc<sup>k</sup>wul* 'what he made', the prediction is that this sentence would be interpreted as 'That thing he made is a TEPEE', similarly to a specificational pseudocleft, but as we've seen, focus cannot occur finally in an Okanagan cleft, and so this interpretation is absent. (41a) is also not interpretable as meaning 'THAT thing he made is a tepee' (as opposed to the other things he made, which are not tepees), since I have found that pre-posed clefts are generally only felicitous when the contrast set consists of instantiations of the relative clause head, in this case, tepees. (41a) is however ambiguously interpretable as '**That's** the one who made the tepee', in which case the DP relative in the residue contains a null subject-centered head.

<sup>23</sup>I discuss the fact that *t* rather than *iʔ* introduces the head of the residue in (42) in the next section, 8.5.

I conclude that the residue of an Okanagan cleft is categorially a DP, and that clefts with demonstrative focus and demonstrative *iʔ* DP focus interpretations may be analyzed as equative structures on a par with simple DP-DP structures, as discussed in chapter 7. I now discuss ‘DP Focus interpretation’ clefts, which typically involve an optional, non-spatially deictic demonstrative. The occurrence of similar demonstratives in both DP-DP structures and clefts is evidence for a common equative analysis.

## 8.5 Morpho-syntactic Evidence for the Equative Analysis of Clefts and DP-DP Structures

This section presents the problem of ‘DP Focus interpretation’ clefts, where an introductory demonstrative is normally non-spatially deictic. I first show that these demonstratives occur in both DP-DP structures and clefts, and may either precede or follow the DP in focus position. Next, I argue that the demonstrative is base-generated as forming a DP constituent with the residue, and optionally moves to the front of the sentence through a process of stylistic proclisis.

### 8.5.1 Clefts and the (Optional) Initial Demonstrative

The ‘DP Focus’ interpretation, as defined above in (38c), initially seems to raise questions for the equative analysis. To illustrate, if the equational functional head is placed as shown in (43a-c), then the presence of the initial, non-focused and non-spatially deictic demonstrative is unexplained, both in terms of its syntactic and semantic role.

- (43) a. (ixíʔ) **iʔ** ylmíx<sup>wə</sup>m = iʔ k<sup>w</sup>u wik-s.  
 DEM DET chief DET 1SG.ABS see-[DIR]-3SG.ERG  
 DP Focus: It’s the **chief** who saw me.
- b. (ixíʔ) **axáʔ** = iʔ sənktʰcaʔsqáxaʔ iʔ ks-<sup>ʔ</sup>úp-aʔx.  
 DEM DEM DET horse DET FUT-win-INCEPT  
**This** is the horse that’s going to win.

- c. (ixíʔ) **Danny** = iʔ x<sup>w</sup>ic'-xt-s t sɣla<sup>w</sup> Dion.  
 DEM Danny DET give-BEN-3SG.ERG OBL money Dion  
 DP Focus: It's **Danny** who gave some money to Dion.  
 (Hébert, 1980, recordings)

There are two important facts worth noting here relating to the initial optional demonstrative, which I claim reinforce the equative analysis. First of all, (44) shows that both clefts (44a) and simple DP-DP structures (44b) may be introduced by non-spatially deictic, optional demonstratives:

- (44) a. (ixíʔ) **John** = iʔ ʔit-s iʔ ápəl.  
 DEM John DET eat-[DIR]-3SG.ERG DET apple  
 It's JOHN who ate the apple.
- b. (ixíʔ) **John** = iʔ səx<sup>w</sup>-maʔ-máyaʔ-m.  
 DEM John DET OCC-RED-teach-MID  
 John is the teacher.

Second, the non-spatially deictic demonstrative may either precede or follow the focused DP in a cleft (45) or a DP-DP structure (46) with no apparent semantic or pragmatic difference.

- (45) a. (ixíʔ) **Mary** = iʔ k<sup>w</sup>u x<sup>w</sup>ic'-xt-s t  
 DEM Mary DET 1SG.ABS give-BEN-3SG.ERG OBL  
 yámǰ<sup>w</sup>aʔ.  
 cedar.bark.basket  
 It's **Mary** who gave me a basket.
- b. **Mary** = (ixíʔ) iʔ k<sup>w</sup>u x<sup>w</sup>ic'-xt-s t  
 Mary DEM DET 1SG.ABS give-BEN-3SG.ERG OBL  
 yámǰ<sup>w</sup>aʔ.  
 cedar.bark.basket  
**Mary** is the one who gave me a basket.

- (46) a. swit ʔápnaʔ iʔ ylmíx<sup>w</sup>əm?  
           who now     DET chief  
           Who is the chief now?
- b. (ixíʔ) **Spike** = iʔ ylmíx<sup>w</sup>əm.  
           DEM Spike     DET chief  
           It's Spike who is the chief.
- c. **Spike** = (ixíʔ) iʔ ylmíx<sup>w</sup>əm.  
           Spike     DEM     DET chief  
           Spike is the one who is the chief.

I suggest that the availability and optionality of non-spatially deictic demonstratives under all three cleft interpretations, as well as DP-DP structures, supports a unified analysis of all three interpretations as underlyingly equative. I claim that the optional pre-focus demonstrative is equivalent to the optional post-focus demonstrative in these examples, and that the demonstrative in these cases is base-generated in a post-focus position, as forming a DP constituent with the residue. The demonstrative moves to the front of the sentence via an optional, late-derivational, morpho-phonological, stylistic proclisis. The next section presents evidence for such an analysis.

Before moving on, however, the natural question arises given data like (45-46) as to whether or not two non-spatially deictic demonstratives can occur in both positions at once. The proclisis analysis predicts that this is not possible, and indeed, for cases involving two demonstratives, at least one of the demonstratives will usually be interpreted as a spatial deictic. In example (47b), for example, the initial demonstrative is a spatial deictic. Especially given the WH-question under discussion (47a), (47b) is most straightforwardly analyzed as involving a left-dislocated demonstrative-associated DP plus an equative structure (47b).<sup>24</sup>

<sup>24</sup>Although acoustic evidence would be useful in confirming this hypothesis.

- (47) a. *stim' yaʔxís iʔ kɬ-x̣s-iwsʔ*  
 what DEM DET kɬ-good-middle  
 What is that field over there?
- b. *ixiʔ iʔ kɬ-x̣s-iws ixíʔ iʔ sən-kʷán-ɬq-tən.*  
 DEM DET kɬ-good-middle DEM DET LOC-grow-crop-INSTR  
 That field is a garden.  
 Literally: That field, it's a garden.

Other data such as (48) might in principle be analyzed as involving two non-spatially deictic demonstratives, but (48) is just as easily analyzable as a sequence of two equatives: the first is a truncated cleft, and the second is a cleft with a demonstrative in focus position, and a headless relative clause DP in residue position.

- (48) *ixiʔ iʔ səxʷ-máʔ-máyaʔ-m ixíʔ iʔ kʷu*  
 DEM DET OCC-RED-teach-MID DEM DET 1SG.ABS  
*qʷəl-qʷíl-st-s.*  
 RED-speak-CAUS-3SG.ERG  
 It's the teacher that is the one who spoke to me.  
 It's the teacher. That/she is the one that spoke to me.

In sum, I take data such as (47-48) to be indirect support for the proclisis analysis.

### 8.5.2 Demonstrative Proclisis in Equatives

This section presents evidence for the idea that a non-spatially deictic clefting demonstrative originates in a position adjoined to the residue DP.

First, consider that there is a variation on DP-DP structures (49a) whereby *t* rather than *iʔ* introduces a nominal in final position, as in (49b,c) below. (The same variation is apparent in clefts, as we will see.)

- (49) a. ***ixíʔ*** *iʔ səxʷ-máʔ-máyaʔ-m.*  
 DEM DET OCC-RED-teach-MID  
**That's** the teacher.

b. **ixíʔ** *t* səx<sup>w</sup>-maʔ-máyaʔ-m.

DEM OBL OCC-RED-teach-MID

**That's** the teacher.

c. **ixíʔ** *mat t* səx<sup>w</sup>-maʔ-máyaʔ-m.

DEM EPIS OBL OCC-RED-teach-MID

**That** might be the teacher.

The oblique marker *t* is restricted to occurring just before nouns in these contexts.<sup>25</sup> This means that residue DPs without *overt* NP heads cannot be introduced by *t* (50-52).<sup>26</sup> The distribution of *t* in this environment indicates that it must select for an overt NP, unlike *iʔ* which can license a null NP head. The demonstrative *ixíʔ* can freely select for either *iʔ* or *t* (49a,b; 52).<sup>27</sup>

(50) a. \*axáʔ *t* ks-ʔ<sup>w</sup>úp-aʔx.

DEM OBL FUT-win-INCEPT

That's what will win.

b. axáʔ *t* sənklácaʔsqáʔaʔ iʔ ks-ʔ<sup>w</sup>úp-aʔx.

DEM OBL horse DET FUT-win-INCEPT

This is the horse who will win the race.

(51) a. **ixíʔ** *iʔ/\*t* paʔ-nt-ís.

DEM DET/\*OBL fold-DIR-3SG.ERG

That's what he folded.

<sup>25</sup>In cases where *t* is associated with a constituent extracted from inside a relative, *t* may precede a verbal predicate (cf. chapter 6).

<sup>26</sup>Adjectives, like verbs, may also not be introduced by *t* in these contexts:

(i) a. **ixíʔ** axáʔ *iʔ* caʔ.

DEM DEM DET red

This is the one that is red.

b. \***ixíʔ** axáʔ *t* caʔ.

DEM DEM OBL red

This is the one that is red.

<sup>27</sup>The identical pattern holds DP-internally in Lillooet. A demonstrative *tiʔ* 'that' may select for either an assertion-of-existence DP headed by the determiner *ti...a*, or a non-assertion-of-existence DP headed by the determiner *k<sup>w</sup>u*. *k<sup>w</sup>u* requires an overt NP head, however *ti...a* freely allows headless relative clauses (Matthewson and Davis, 1995). See related discussion in section 4.6.1.



b. axáʔ iʔ/\*t x<sup>w</sup>úy-st-əm.  
 DEM DET/\*OBL go-CAUS-1PL.ERG  
 That's what we will bring along.

c. ixíʔ iʔ/\*t yalt.  
 DEM DET/\*OBL run.away.  
 That's the one that ran away.

(52) a. Context: Pointing out the deer that was just shot.

ixíʔ iʔ/t sʰaʔcínəm.  
 DEM DET/OBL deer  
 That's the deer.

b. Context: Picking out an old woman out of a police line-up.

axáʔ iʔ/t pəptwínax<sup>w</sup>.  
 DEM DET/OBL old.woman  
 That's the old lady.

Next, recall from section 4.6.1 that an oblique marked NP is *not* itself a DP, as shown by its inability to occur in transitive argument contexts (53a) or in the focus position of a cleft (53b). A demonstrative licenses an oblique marked NP to function as an argument in both contexts (54), however.

(53) a. \*c-n-k<sup>w</sup>ní-st-ən [t q<sup>w</sup>íləm<sub>DP</sub>].  
 CUST-n-sing-CAUS-1SG.ERG OBL song  
 I sang that song.

b. \*[t q<sup>w</sup>íləm<sub>DP</sub>] iʔ c-n-k<sup>w</sup>ní-st-ən.  
 OBL song DET CUST-n-sing-CAUS-1SG.ERG  
 It's the song that I sang.

- (54) a. c-n-k<sup>w</sup>ní-st-ən                      [ixíʔ t q<sup>w</sup>íləm<sub>DP</sub>].  
           CUST-n-sing-CAUS-1SG.ERG DEM OBL song  
           I sang that song.
- b. [ixíʔ t q<sup>w</sup>íləm<sub>DP</sub>] iʔ c-n-k<sup>w</sup>ní-st-ən.  
           DEM OBL song                      DET CUST-sing-CAUS-1SG.ERG  
           THAT's the song that I sang.

Also, note that in the context of a demonstrative, *t* is sometimes interchangeable with the *iʔ* determiner in argument positions, with no apparent semantic distinction.<sup>28</sup>

- (55) a. c-n-k<sup>w</sup>ní-st-ən                      [ixíʔ t q<sup>w</sup>íləm<sub>DP</sub>].  
           CUST-n-sing-CAUS-1SG.ERG DEM OBL song  
           I sang that song.
- b. c-n-k<sup>w</sup>ní-st-ən                      [ixíʔ iʔ q<sup>w</sup>íləm<sub>DP</sub>].  
           CUST-n-sing-CAUS-1SG.ERG DEM DET song  
           I sang that song.

While the internal structure of a DP consisting of a demonstrative associated with an oblique *t* NP is unclear,<sup>29</sup> it is sufficient for current purposes to note that an oblique-marked NP is *not* a DP, but when it forms a constituent with a demonstrative, the resulting constituent functions syntactically as a DP.

With this background in mind, I now present the argument for proclisis. A contrast surfaces between DP-DP structures with focused demonstratives on the one hand (56), and those with focused proper names (57) or *iʔ* DPs (58), such that the latter do not allow the *t*-variant.

<sup>28</sup>It is only *sometimes* interchangeable in argument contexts, for reasons I cannot yet determine.

<sup>29</sup>In chapter 4 I argued that there is no evidence for a null determiner for oblique quasi-objects, and since Okanagan demonstratives do not occur in D position, the most straightforward analysis of this particular occurrence of *t* is as an idiosyncratic spell-out of *iʔ*, but this too runs into problems, for two reasons. First, the alternation in clefts carries an information-structural function (discussed in the next section): *t* unambiguously signals that what follows it is *not* in focus, and demonstratives are not optional for *t* clefts. Second, *iʔ* may select for a headless relative clause in this environment, whereas *t* may not (cf. section 8.5.2, and (Matthewson and Davis, 1995) and (Matthewson, 1998, section 3.2.4) for Lillooet). I leave the problem of the internal constituency of DPs consisting of a demonstrative-associated *t* NP to further work.

- (56) a. **ixíʔ** t səx<sup>w</sup>-maʔ-máyaʔ-m.  
 DEM OBL OCC-RED-teach-MID  
**That's** the teacher.
- b. **ixíʔ** iʔ səx<sup>w</sup>-maʔ-máyaʔ-m.  
 DEM DET OCC-RED-teach-MID  
**That's** the teacher.
- (57) a. \***John** t səx<sup>w</sup>-maʔ-máyaʔ-m.  
 John OBL OCC-RED-teach-MID  
**John's** the teacher.
- b. **John** iʔ səx<sup>w</sup>-maʔ-máyaʔ-m.  
 John DET OCC-RED-teach-MID  
**John's** the teacher.
- (58) a. \***iʔ pəptwínax<sup>w</sup>** t səx<sup>w</sup>-maʔ-máyaʔ-m.  
 DET old.lady OBL OCC-RED-teach-MID  
**The old lady** is the teacher.
- b. **iʔ pəptwínax<sup>w</sup>** iʔ səx<sup>w</sup>-maʔ-máyaʔ-m.  
 DET old.lady DET OCC-RED-teach-MID  
**The old lady** is the teacher.

Because a demonstrative is needed to syntactically license a *t* NP to function as a DP, (57a) cannot be a DP-DP structure. Adding a demonstrative either before or after the proper name makes the structure licit, as in (59).

- (59) a. **ixíʔ John** t səx<sup>w</sup>-maʔ-máyaʔ-m.  
 DEM John OBL OCC-RED-teach-MID  
**John's** the teacher.
- b. **John ixíʔ** t səx<sup>w</sup>-maʔ-máyaʔ-m.  
 John DEM OBL OCC-RED-teach-MID  
**John's** the teacher.

I therefore claim that the demonstrative is base generated and interpreted as a DP constituent with the residue (60a), but undergoes optional proclisis to initial

position (60b). I also extend this analysis to canonical DP-DP structures, where *i?* introduces the second DP (60c).

- (60) a. [**John**<sub>DP</sub>] = [ixíʔ t səx<sup>w</sup>-maʔ-máyaʔ-m<sub>DP</sub>].  
           John = DEM OBL OCC-RED-teach-MID  
           (i) It's **John** who is the teacher.  
           (ii) **John** is that teacher.
- b. ixíʔ<sub>1</sub> [**John**<sub>DP</sub>] = [t<sub>1</sub> t səx<sup>w</sup>-maʔ-máyaʔ-m<sub>DP</sub>].  
           DEM John = OBL OCC-RED-teach-MID  
           (i) It's **John** who is the teacher.  
           (ii) **John** is that teacher.
- c. ixíʔ<sub>1</sub> [**John**<sub>DP</sub>] = [t<sub>1</sub> iʔ səx<sup>w</sup>-maʔ-máyaʔ-m<sub>DP</sub>].  
           DEM John = DET OCC-RED-teach-MID  
           (i) It's **John** who is the teacher.  
           (ii) **John** is that teacher.

Notice that under one possible interpretation of (60), ‘John is that teacher’, the demonstrative is deictic and construed as a (sometimes discontinuous) constituent with the oblique-marked NP. This is strong evidence that an initial demonstrative is semantically interpreted in its post-copular position.<sup>30</sup> Under the other interpretation of (60), the demonstrative does not appear to be a spatial deictic, but I suggest that it may be analyzed as a discourse deictic (cf. section 8.6.2).

Clefts with demonstratives in focus show the same variation between *t* and *i?* (61).<sup>31</sup> The *i?* variant (61b) displays the 3-way interpretive ambiguity, however, while the *t* variant does not (61a), allowing only the demonstrative focus reading. This is somewhat unexpected given that the demonstrative-associated *t* NP should be able to function as a focused DP constituent. The interpretive restriction on (61a) suggests that (62) is not a possible structure.

<sup>30</sup>The *i?*-variant equivalent of (60) could be analyzed as fitting into Higgins’ identificational sentence class, especially since the demonstrative appears to be deictic in these cases. But since the proper name must be in focus for (60), and focus cannot occur finally, I analyze these as equatives.

<sup>31</sup>See Hébert (1982a, 355-356) for additional examples of *t*-variant cleft residues, involving benefactive applicative residue predicates.

- (61) a. **ixiʔ** t stáʔəm iʔ s-c-kʷul-s i-sláʔt.  
 DEM OBL boat DET NOM-CUST-make-3SG.POSS 1SG.POSS-friend  
**That's** the boat that my friend made (not this boat).  
 \***That boat** is the one that my friend made (not this house).  
 \*It's **the boat** that my friend made (not the house).

- b. **ixiʔ** iʔ stáʔəm iʔ s-c-kʷul-s i-sláʔt.  
 DEM DET boat DET NOM-CUST-make-3SG.POSS 1SG.POSS-friend  
**That's** the boat that my friend made (not this boat).  
**That boat** is the one that my friend made (not this house).  
 It's **the boat** that my friend made (not the house).

- (62) \*[ixiʔ t stáʔəm<sub>DP</sub>] = [iʔ sckʷuls isláʔt<sub>DP</sub>].

In clefts (and DP-DP structures) any material following *t* is not in focus, so I analyze all material following *t* as part of the residue.

*t*-variant clefts involving pre-posed relative clause residues (63, cf. 41a) show the same interpretive restriction as canonical cases (61): the demonstrative must be in focus to the exclusion of the remaining material.

- (63) Context: Couple of frogs were hopping around then disappeared, you saw one. When they re-appear, I asked you which one you saw.  
**ixíʔ** = iʔ wík-ən t swárákxn.  
 DEM DET see-[DIR]-1SG.ERG OBL frog  
**That's** the frog that I saw.

Demonstrative proclisis occurs not only in DP-DP structures, but also in clefts (64), though it is less clear whether proclisis occurs in clefts like (61-63), where *only* a demonstrative is in focus. I address this question in the next section.

- (64) a. **Nancy** = **ixíʔ** t səxʷ-máʔ-máyaʔ-m iʔ kʷu  
 Nancy DEM OBL OCC-RED-teach-MID DET 1SG.ABS  
 wik-s.  
 see-[DIR]-1SG.ERG  
 It's/That's **Nancy** who is the teacher who saw me.

- b. *ixíʔ Nancy = t səx<sup>w</sup>-maʔ-máyaʔ-m iʔ k<sup>w</sup>u*  
 DEM Nancy OBL OCC-RED-teach-MID DET 1SG.ABS  
*wik-s.*  
*see-[DIR]-1SG.ERG*

It's/That's **Nancy** who is the teacher who saw me.

Before closing, it is important to note that demonstrative proclisis is not limited to equative environments. In transitive contexts, a demonstrative-associated to a post-verbal object DP can move to the front of the sentence. This is most clearly shown with proximal *axáʔ* (65a,b), since an initial distal *ixíʔ* in this context can be construed as a non-constituent, discourse functor.<sup>32</sup> Nevertheless, for demonstrative-associated transitive object NPs introduced by *t*, an initial demonstrative can safely be construed as an underlying constituent with the *t* NP (66a,b).

- (65) a. *kaʔkíc-ən axáʔ iʔ lpot.*  
 find-[DIR]-1SG.ERG DEM DET cup  
 I found this cup.
- b. *axáʔ kaʔkíc-ən iʔ lpot.*  
 DEM find-[DIR]-1SG.ERG DET cup  
 I found this cup.
- (66) a. *síw-ən ixíʔ t siwɬk<sup>w</sup>.*  
 drink-[DIR]-1SG.ERG DEM OBL water  
 I drank that water.
- b. *ixíʔ síw-ən t siwɬk<sup>w</sup>.*  
 DEM drink-[DIR]-1SG.ERG OBL water  
 I drank that water.

<sup>32</sup>The demonstrative *ixíʔ* has various poorly described discourse functions, among them signalling temporal sequencing (Lyon, 2010b):

- (i) *way<sup>ʔ</sup> ixíʔ lɬ<sup>w</sup>p-ám axáʔ iʔ səx<sup>w</sup>-k<sup>w</sup>úl-əm.*  
 yes DEM run.out-MID DEM DET OCC-work-MID  
 Then he ran out, the working man. (Colville, A. Mattina (1985, stz.450))

Cross-Salishan evidence for demonstrative proclisis in Okanagan comes from Lillooet, where a demonstrative may undergo enclisis to second position, detaching from the DP with which it associates (Matthewson and Davis, 1995, 21):

- (67)    *nił      ti?    kóla?    sáquł    lč?a    Lillooet-a    k<sup>w</sup>u    smúłáč.*  
          CLEFT DEM first    half    here Lillooet-DET DET woman  
          She was the first half-breed woman in Lillooet.  
          (Lillooet, van Eijk and Williams (1981, 70))

I conclude that demonstrative proclisis in Okanagan serves a stylistic function, or possibly a prosodic function, yet to be determined.

### 8.5.3 Null Foci

Demonstrative proclisis appears to have a stylistic or prosodic function: sentences with initial demonstratives are truth conditionally equivalent to sentences with non-initial demonstratives. The two variants also seem to be information structurally equivalent in equatives: in *t*-variant clefts where there is a DP focus (e.g. *Ron* in (68a)), the demonstrative is invariably not in focus, while for *t* variant clefts where only a demonstrative precedes *t*, the demonstrative must be in focus (68b).

- (68) a. *ixí?    Ron    t      syx<sup>w</sup>áp-məx      a?    c-q<sup>w</sup>əl-q<sup>w</sup>íl-st-ən.*  
          DEM Ron OBL Shuswap-person DET CUST-RED-speak-CAUS-1SG.ERG  
          That's **Ron** who is the Shuswap I was talking to.
- b. *ixí?    t      syx<sup>w</sup>áp-məx      a?    c-q<sup>w</sup>əl-q<sup>w</sup>íl-st-ən.*  
          DEM OBL Shuswap-person DET CUST-RED-speak-CAUS-1SG.ERG  
          **That's** the Shuswap I was talking to.

The question arises as to whether the demonstrative in (68b) can undergo proclisis, and if so, to what it attaches.

At first glance, it appears that the demonstrative in (68b) has raised to a focus position, but this creates an analytical inconsistency, since the demonstrative in (68a) is definitely not a contrastive focus. There are two potential explanations for the pattern in (68b), as shown below for simpler equative cases: (i) The demonstrative in focus position is null (i.e. 'a null focus'), and the demonstrative in the

residue DP either does not move (69a) or else procliticizes to the null subject (69b); (ii) The focus position is filled by a demonstrative DP (70a), while the demonstrative in residue position is not spelled-out, presumably due to some restriction on a sequence of two identical demonstratives. Proclisis in this case (70b) would be vacuous.

(69) Null Focus Hypothesis

- a.  $[\emptyset_{DP}] = [\text{ixí? } t \quad \text{səx}^w\text{-ma?}-\text{máya?}-\text{m}_{DP}]$ .  
           = DEM OBL OCC-RED-teach-MID

**That's** the teacher.

- b.  $\text{ixí?}_1 [\emptyset_{DP}] = [t_1 t \quad \text{səx}^w\text{-ma?}-\text{máya?}-\text{m}_{DP}]$ .  
           DEM = OBL OCC-RED-teach-MID

**That's** the teacher.

(70) 'Double Demonstrative' Filter Hypothesis

- a.  $[\text{ixí?}_{DP}] = [(\text{ixí?}) t \quad \text{səx}^w\text{-ma?}-\text{máya?}-\text{m}_{DP}]$ .  
           DEM = DEM OBL OCC-RED-teach-MID

**That's** the teacher.

- b.  $(\text{ixí?})_1 [\text{ixí?}_{DP}] = [t_1 t \quad \text{səx}^w\text{-ma?}-\text{máya?}-\text{m}_{DP}]$ .  
           DEM = OBL OCC-RED-teach-MID

**That's** the teacher.

The same analytical ambiguity technically exists for *i?*-variant equatives with demonstrative focus interpretations, equivalent to (69-70), although since *i?* DPs do not need demonstratives to license them, an initial focused demonstrative is most straightforwardly analyzed in base-generated position. In other words, no proclisis is involved in these cases.

There is cross-linguistic evidence supporting the existence of null foci. In Lil-looet, for example, where clefts are introduced by an unambiguous clefting predicate *nilh*, a demonstrative focus is possible (71a) but not always overtly pronounced (71b). Shank (2003) also provides an example of a cleft from Northern Straits with a null, focused 3rd person pronoun (72)<sup>33</sup>, and Koch (2008a) conjectures that

<sup>33</sup>It is unclear in what position in (72) Shank considers the null pronoun to occur.



Thompson (73) involves a null focus on the basis that the demonstrative *xe?* is not typically used to refer to people.

- (71) a. *niʔ ti? wa? ləx-láx-š-an*  
 CLEFT DEM IMPF RED-remember-CAUS-1SG.ERG  
*i-w-an kʷikʷš.*  
 when.PAST-IMPf-1SG.CJCT small  
 That's what I remember from when I was small.  
 (Lillooet, Matthewson (2005, 404, ex.333))
- b. *niʔ ∅ wa? ləx-láx-š-an*  
 CLEFT (DEM) IMPF RED-remember-CAUS-1SG.ERG  
*i-wáʔ-aš-tu? ʔíq-min-č-as*  
 when.PAST-IMPf-3.CJCT-THEN arrive-RED-1SG.OBJ-3.ERG  
*kʷ-s Pipayán.*  
 DET-NOM Pipayan  
 I remember when Pipayan came to fetch me.  
 (Lillooet, Matthewson (2005, 358, ex.31))
- (72) *ʔəw hay ʔal [ts-ət kʷsə čéwiʔ<sub>CP</sub>].*  
 LNK only just break-TR DET plate  
 He's the only one that broke a plate.  
 (Northern Straits, Shank (2003, 232, f.n.20))
- (73) *ó, cé xe? [ʔ n-skíxzeʔ<sub>FOC</sub>] e qʷy-éw-m*  
 oh CLEFT DEM DET 1SG.POSS-mother COMP ripe-harvest-MID  
*te sqʷíyt, ʔet cé xe? [∅<sub>FOC</sub>] e*  
 OBL fruit and CLEFT DEM 3SG COMP  
*s-txʷ-úp-s te méʔqiy tuxʷ*  
 NOM-buy-INCH-3SG.POSS OBL mushroom from  
*e ntéwmn.*  
 DET store  
 It was **my mother** that picked the fruit, and it was **her** that bought the  
 mushrooms at the store. (Thompson, Koch (2008a, 273, ex.51))

In light of these facts, the null focus hypothesis (69) seems plausible for Okanagan, specifically (69a), since there is no morpho-phonological motivation to procliticize to a null subject (69b). The null focus hypothesis does not reflect the assertive force of an equative, however. To explain, in (69) the assertion is ‘That teacher is [ $\emptyset$  *FOC*]’, but this does not intuitively seem to be correct. (70) straightforwardly reflects the equative assertion, and is also more in line with my analysis of clefts involving proper names in focus position (cf. 64).

This does not lessen the possibility that the null focus hypothesis is correct for Lillooet, Northern Straits, and Thompson, however. But unlike Okanagan, these languages have overt clefting predicates, and so a null focus is recoverable from the syntactic context. In other words, unlike Okanagan *ixíʔ*, there is no sense in which a clefting predicate will be misconstrued as a DP constituent.

#### 8.5.4 Intensionality and Cleft Residues

Assuming that the demonstrative proclisis analysis is correct, the equative analysis as applied to a cleft like (74) predicts that the residue DP has the semantic denotation given as (75). In other words, demonstrative-associated DPs must allow intensional readings, just like regular *iʔ* DPs (cf. section 5.2.9).

- (74) *ixíʔ Ron t syx<sup>w</sup>áp-məx aʔ c-q<sup>w</sup>əl-q<sup>w</sup>íl-st-ən.*  
 DEM Ron OBL Shuswap-person DET CUST-RED-speak-CAUS-1SG.ERG  
 That’s **Ron** who is the Shuswap I was talking to.

- (75)  $\lambda w[f(\lambda x[that\ Shuswap\ I\ was\ talking\ to(x)(w) \wedge C(x)(w)])]$

This seems reasonable in light of the fact that the demonstrative in a cleft such as (74) is normally not a spatial deictic, similar to *iʔ* DPs, and so should be able to make reference to an individual concept. Examples (76-77) are not clefts, but show demonstrative-associated DPs denoting individual concepts.

- (76) Context: A chief sent you some flowers, but you have no idea who the chief is.

mat swit [ixíʔ t ylmíx<sup>w</sup>əm<sub>DP</sub>] mat ʃast t sqilx<sup>w</sup>.  
 EPIS who DEM OBL chief EPIS good OBL native.person  
 Whoever that chief is, he must be a good person.

- (77) swit mat [ixíʔ t sqilx<sup>w</sup> aʔ c-ṁaʔ-ṁáyaʔ-m<sub>DP</sub>], kmax  
 who EPIS DEM OBL native.person DET CUST-RED-teach-MID only  
 ti syilx iʔ k(ʔ)-s-ṁaʔ-ṁáyaʔ-s.  
 EMPH Okanagan.person DET U.POSS-NOM-RED-teach-3SG.POSS  
 Someday, whoever is teacher will be teaching only in Okanagan.

Demonstrative-associated *iʔ* DPs allow generic readings (78). I analyzed Okanagan generics as intensional maximal pluralities, following Chierchia (1998), in section 5.2.8.

- (78) ʔíʔ-ən ixíʔ iʔ qáqx<sup>w</sup>əlx yaʕyáʕt sʃəlʃíʕált.  
 eat-[DIR]-1SG.ERG DEM DET fish all day  
 I eat that kind of fish every day.  
 Literally: I eat that fish every day.  
 SM: Yeah, you're talking about whatever kind of fish, ling-cod, kokanee, salmon.

I do have several examples of clefts for which a demonstrative-associated cleft residue allows an intensional reading. Example (79a) shows a demonstrative in its base generated position adjoined to the residue clause. The entire residue in this case minimally denotes ‘that person who helped me’, but given the non-specific interpretation of the DP in focus position, the residue clause may denote a maximal plurality, i.e. ‘that kind of individual that helped me’. In other words, since the alternatives to *iʔ sqəltmíx<sup>w</sup>* ‘a man’ consist of ‘a woman’, ‘a child’, etc., the demonstrative-associated residue has a generic reading. The initial modal *mat* takes scope over the entire cleft, and binds the world variable of the maximal plural individual denoted by the residue clause. The residue clause in (79b) displays a non-generic intensional reading.

- (79) a. mat **iʔ** sqəltmíx<sup>w</sup> ixíʔ iʔ k<sup>w</sup>u kn-xit-s.  
 EPIS DET man DEM DET 1SG.ABS help-BEN-3SG.ERG  
 Maybe a **man** was the one who helped me.
- b. **ixíʔ** mat t sqəltmíx<sup>w</sup> iʔ k<sup>w</sup>u kn-xit-s.  
 EPIS DET man DEM DET 1SG.ABS help-BEN-3SG.ERG  
**That** might be the man who helped me.

In sum, demonstrative-associated DPs are semantically similar to regular *iʔ* DPs in terms of allowing intensional readings. This is consistent with an equative analysis of clefts, whereby the first argument of the equative head is an intensional individual (7.5).

## 8.6 Analysis

### 8.6.1 Syntactic Derivation

This chapter has presented both information structural and morpho-syntactic arguments in favor of an equative analysis of Okanagan clefts. Sample cleft derivations are shown below (overlooking the details of relative clause formation, cf. section 6.3.3). A demonstrative focus cleft is shown in (80a), a demonstrative DP focus cleft in (80b), and an *iʔ* DP focus cleft in (80c). Optional proclisis is indicated with a subscript ‘1’.

- (80) a. (ixíʔ<sub>1</sub>) [**axáʔ**<sub>DP</sub>] [ [= <sub>Id</sub>] [t<sub>1</sub> [t/iʔ sʰaʔcínəṁ [iʔ  
 (DEM) DEM ‘BE’ OBL/DET see-DIR-2SG.ERG OBL/DET  
 wík-ənt-x<sup>w</sup><sub>CP</sub>] <sub>DP</sub>]<sub>DP</sub>]<sub>Id'</sub>].  
 deer  
**This**’s the deer you saw (i.e. not that one).
- b. (ixíʔ<sub>1</sub>) [**axáʔ** [t/iʔ sʰaʔcínəṁ<sub>DP</sub>]<sub>DP</sub>] [ [= <sub>Id</sub>] [t<sub>1</sub> [(iʔ) ⊗  
 (DEM) DEM OBL/DET deer ‘BE’ (DET)  
 [iʔ wík-ənt-x<sup>w</sup><sub>CP</sub>] <sub>DP</sub>]<sub>DP</sub>]<sub>Id'</sub>].  
 DET see-DIR-2SG.ERG  
**This deer** is the one you saw (i.e. not that bear).

- c. (ixíʔ<sub>1</sub>) [iʔ sʰaʔcínə<sub>DP</sub>] [ [= <sub>Id</sub>] [t<sub>1</sub> [(iʔ) ∅ [iʔ  
 (DEM) DET deer ‘BE’ (DET) DET  
 wík-ənt-x<sup>w</sup><sub>CP</sub>] <sub>DP</sub>]<sub>DP</sub>]<sub>Id</sub>].  
 see-DIR-2SG.ERG

It’s the **deer** that you saw (i.e. not the bear).

Syntactically speaking, Okanagan supports theories of clefts such as Percus (1997) and Hedberg (2000), as discussed in section 2.4.<sup>34</sup> These theories analyze the cleft pronoun *it* as a discontinuous constituent with the residue clause, similar to my analysis of *ixíʔ*, and both English *it* and Okanagan *ixíʔ* introduce clefts in their respective languages. I briefly recap their analyses here.

Percus (1997) analyzes the cleft pronoun *it* as the spellout of a definite determiner *the*, which forms a DP constituent with a null NP, which is itself the head of the residue clause. A derivation is represented in (81).

(81) Percus (1997)

- a. [The ∅ [that you saw <sub>i</sub>]][is the deer]. (Base structure)  
 b. [The ∅ <sub>t<sub>i</sub></sub>][is the deer][that you saw <sub>i</sub>]. (Extraposition)  
 c. It is the deer that you saw. (Spellout of *the* as *it*)

Hedberg (2000) presents a very similar analysis, except that the definite determiner selects for a bare CP, rather than a null NP. The CP lowers to a position adjoined to the focus, as in (82):

(82) Hedberg (2000)

- a. [The [that you saw <sub>i</sub>]][is the [deer <sub>NP</sub>]]. (Base structure)  
 b. [The <sub>t<sub>i</sub></sub>][is the [deer [that you saw <sub>i</sub>]<sub>NP</sub>]]. (CP Lowering)  
 c. It is the deer that you saw. (Spellout of *the* as *it*)

<sup>34</sup>Okanagan does not support ‘expletive’ theories of clefts (cf. Reeve (2007) for an overview). This because clefting *ixíʔ* is not a syntactic subject, it is not inserted, and it is required in contexts where the residue is introduced by *t*, as explained above.

Okanagan *ixíʔ* is similar to the English clefting pronoun *it*, under a Percus or Hedberg-style analysis, in the sense that it too forms an underlying constituent with the residue clause. Unlike in English, however, *ixíʔ* is not the spellout of a determiner, and it is not necessarily overt. Another point of difference between English clefts and Okanagan clefts is that in the latter, the residue is already in final position, and so no extraposing is required. Instead, it is the demonstrative *ixíʔ* that optionally moves to *initial* position.

The fact that Okanagan residues can be headed by overt NPs supports Percus (1997) over Hedberg (2000), in the sense that the null NP in (81) may, in principle, have overt content. In actuality, English residues cannot be headed since the clefting pronoun *it* is a spell-out of *the* plus a null NP head (Percus, 1997), which effectively means that only a sub-class of specificational sentences may be derived into clefts. For Okanagan clefts, however, because there is no special spell-out procedure involved, headed residues are perfectly acceptable. The English equivalent of the Okanagan structure using a Percus-style representation of a headless residue is given in (83a), with (83b) representing optional proclisis of the demonstrative. (84) shows the English equivalent of an Okanagan example with a headed residue.

(83) **English equivalent of Okanagan:**

‘The deer is the one that you saw’

‘It’s the deer that you saw’

a. [The deer](=)[(that) the  $\oslash$  [that you saw]].

b. (That)[the deer](=)[the  $\oslash$  [that you saw]].

(84) **English equivalent of Okanagan:**

‘The deer is the animal that you saw’

‘It’s the deer that is the animal you saw’

a. [The deer](=)[(that) the animal [that you saw]].

b. (That)[the deer](=)[the animal [that you saw]].

One of the major goals of Percus (1997, 338) is to account for the ‘specificational character’ of clefts. That is, clefts and specificational *th*-pseudoclefts (e.g.

*The one that you saw is the deer*) are constrained in their discourse functions in “precisely the same way”. By analyzing clefts as syntactically derived from a specificational sentence, he is able to explain their common semantic and pragmatic properties. Okanagan does not have specificational sentences in the classic sense, but it does have DP-DP equatives with a fixed information structure resembling inverse specificational copular clauses in English, like the following example from den Dikken et al. (2000), except that in English, where the initial DP is always interpreted exhaustively, it is only implied to be exhaustive in Okanagan.

(85) Otto Preminger was who I met.

Given that Okanagan clefts are information structurally equivalent to simple DP-DP equatives, and that this is directly parallel to Percus’ observation that English clefts are pragmatically equivalent to specificational pseudoclefts, it makes sense to argue in favor of an equative analysis of Okanagan clefts.

### 8.6.2 Semantic Derivation

The major benefit of Percus (1997) for English theories of clefts is a semantic one: he is able to link the presupposition of existence and exhaustivity entailment of English clefts to the semantics of the definite determiner (cf. section 2.4.2). For Okanagan, the exhaustivity implicature carried by clefts is linked to the maximality implicature of the determiner *i?* (86, cf. section 7.4.1), and clefts carry the same exhaustivity implicature as DP-DP structures, shown below again as (87).

(86) **Maximality implicature of *i?*:**

$f = \text{MAX}$

(87) **Exhaustivity Implicature:**

A sentence of the form  $[x_{DP}] = [i? Y_{DP}]$

a. Asserts:

$\exists f.x = f(Y)$

b. Via (86) this implicates:

$x = \text{MAX}(Y)$

- c. And assuming (87b) is satisfied, a DP-DP structure asserts:  
*x* is the *only* *Y*

For the sake of concreteness, I will show how (86-87) applies to (88).

- (88) a. (ixíʔ) [iʔ sʰaʔcínəm<sub>DP</sub>] = iʔ wik-ənt-x<sup>w</sup>.  
 DEM DET deer = DET see-DIR-2SG.ERG  
 DP Focus: It's the **deer** you saw.
- b. Asserts:  
 $\exists f.f(\lambda x[\text{deer}(x)(w) \wedge C(x)(w)]) = \lambda w \exists f.f(\lambda x[\text{what you saw}(x)(w) \wedge C(x)(w)])$
- c. Implies:  
 $\text{MAX}(\lambda x[\text{deer}(x)(w) \wedge C(x)(w)]) = \lambda w \text{MAX}(\lambda x[\text{what you saw}(x)(w) \wedge C(x)(w)])$
- d. And assuming (88c) is satisfied, entails  
 $\text{MAX}(\lambda x[\text{deer}(x)(w) \wedge C(x)(w)])$  **is the only x equal to**  
 $\lambda w \text{MAX}(\lambda x[\text{what you saw}(x)(w) \wedge C(x)(w)])$

In contexts for which (88c) is not satisfied, the exhaustivity implicature is cancelled, and only the assertion in (88b) holds. This makes data like (89, cf. 16) possible in Okanagan, unlike in English, where exhaustivity is presupposed.

- (89) **John** iʔ náqʷ-əm-s iʔ təxt uʔ nix<sup>w</sup> **Peter**  
 John DET steal-MID[?]-3SG.POSS DET sweet CONJ also Peter  
 iʔ náqʷ t təxt.  
 DET steal(INTR) OBL sweet  
 #It's **John** who stole a cookie, and **Peter too** stole a cookie.  
 (adapted from (Krifka, 2008, 253))

Assertions such as (88b) are also not reliant on any presupposition of existence: the equative in (88b) simply asserts the existence of two individuals, and equates them with one another. This means that an Okanagan cleft can be used without any prior context (90, cf. 19). In such a context, (90) essentially means 'There is a horse and I rode that horse'.



- (90) a. *stim an-cáwt ʔapnáʔ sʔəlʔáltʔ*  
 what 2SG.POSS-doings now day  
 What did you do today?
- b. *ixíʔ iʔ sənktʰcaʔsqáʔaʔ iʔ n-k-ʔámt-íws-əm-ən.*  
 DEM DET horse DET n-sit-middle-MIN-[DIR]-1SG.ERG  
 I rode that horse.  
 (Literally, ‘That’s the horse that I rode’ or ‘It’s the horse that I rode’.)

The semantic role of the Okanagan ‘clefting’ demonstrative in equative structures is less clear. It is not strictly necessary for an equative structure, and it seems to be transparent to both maximal and non-maximal readings of its adjoined *iʔ* DP in the sense that these DPs permit both deictic and intensional readings (8.5.4). Also, recall that for cases like (91a,b), both spatially deictic and non-spatially deictic readings of the demonstrative are available.

- (91) a. *ixíʔ John t səx<sup>w</sup>-maʔ-máyaʔ-m.*  
 DEM John OBL OCC-RED-teach-MID  
 (i) It’s **John** who is the teacher.  
 (ii) **John** is that teacher.
- b. *ixíʔ Ron t syx<sup>w</sup>áp-məx aʔ c-q<sup>w</sup>əl-q<sup>w</sup>íl-st-ən.*  
 DEM Ron OBL Shuswap-person DET CUST-RED-speak-CAUS-1SG.ERG  
 It’s/That’s **Ron** who is the Shuswap I was talking to.

For now, I assume that the semantic contribution of the Okanagan clefting demonstrative *ixíʔ* to the residue DP, and to adjoined DPs in general (cf. section 4.6.1) is one of deictic features. These deictic features may be spatial, in which case the deictic force of the demonstrative is obvious, but I suggest that they may also be discourse deictics, in which case the deictic force of the demonstrative is much less apparent, to the point of appearing to be deictically vacuous in some instances. For example, consider that (92b) directly follows (92a) as part of a much longer story. The demonstrative in (92b) does not denote any of the discourse participants in (92a), and there is no apparent discourse participant in (92b). The most plausible explanation is that the demonstrative denotes the entire proposition(s) given as

(92a), as a form of discourse deixis.<sup>35</sup>

- (92) a. way wiʔ-s-č̣ʷ-ənt-ísəl̥x, way kətʔəmcín.  
 already finish-NOM-instruct-DIR-3PL.ERG already agree  
 They got done telling him what to do, he agreed.  
 (Colville, A. Mattina (1985, stz.348))

- b. ixíʔ uł way mʔán,...  
 DEM CONJ already noon  
 It was past noon,... (Colville, A. Mattina (1985, stz.348))

Since clefts are normally part of larger discourses, it is viable hypothesis that apparent cases of deictically weak demonstratives in Okanagan clefts are in fact discourse deictics, similar to (92b). In these cases, their function is not to situate the referent of the residue DP in spatial terms, but rather to situate the referent of the residue DP in terms of the larger discourse. Given that a demonstrative-associated *iʔ* DP in an argument position can be used in a context where the referent is not spatially or temporally present, but may have a discourse antecedent, the hypothesis that clefting demonstratives may be discourse deictics does not necessarily conflict with the proclisis hypothesis. A full description and analysis of discourse uses of Okanagan demonstratives goes beyond the scope of this thesis, however.

## 8.7 Summary

This chapter has focused on the syntax, semantics, and information structure of clefts in Okanagan. I have claimed that Okanagan clefts are structurally equivalent to DP-DP structures, based on information-structural parallels, including an exhaustivity implicature, an absence of any presupposition of existence (cf. Davis et al. (2004); Koch (2008a)), and a requirement that a DP constituent in contrastive focus be aligned left (cf. Koch (2008a) for Thompson). Okanagan clefts allow the residue clause to contain an NP head, which I take as evidence that the residue is categorially a DP, unlike clefts in closely-related Thompson Salish. I discuss morpho-syntactic evidence that the clefting demonstrative *ixíʔ* forms an underly-

<sup>35</sup>Examples like (92b) are known in the literature as cases of ‘and fronting’. These are discussed at length by Kroeber (1999, 366).

ing constituent with the residue, and moves to the front of the sentence in an optional, stylistic proclisis. Given clear parallels with DP-DP structures, I claim that Okanagan clefts involve a null equative head, linking a residue DP to a focused DP.

The implications of this analysis are important for theories of clefts, particularly those that analyze the cleft pronoun *it* as a discontinuous constituent with the residue clause, and trace the semantic and pragmatic properties of clefts to the presence of an underlying definite determiner (Percus, 1997; Hedberg, 2000). I analyze Okanagan ‘clefting’ *ixíʔ* as an underlying constituent with the residue clause, and link the exhaustivity implicature and the absence of any presupposition of existence to the determiner *iʔ*.

## 8.8 Chapter Addendum A: Future Clefts and the Case for Clausal NPs

This addendum presents evidence for my claim that simple NPs may in some cases be analyzed as projecting clausal structure. This claim is based on cleft data like (93a), which seem to show a DP *iʔ səx<sup>w</sup>píxəm* ‘the hunter’ in the position of a relative clause, modifying an NP head *ylmíx<sup>w</sup>əm* ‘chief’, analogous to a clear case of relative clause modification (93b).

- (93) a. **ixíʔ** = t      ylmíx<sup>w</sup>əm iʔ      səx<sup>w</sup>-píx-əm.  
          DEM      OBL chief      DET OCC-hunt-MID

**That’s** the chief that is the hunter.

- b. **ixíʔ** = t      syx<sup>w</sup>áp-məx      aʔ      c-q<sup>w</sup>əl-q<sup>w</sup>íl-st-ən.  
          DEM = OBL Shuswap-person DET CUST-RED-speak-CAUS-1SG.ERG

**That’s** the Shuswap I was talking to.

The question is, what is the structural analysis of (93a)? Given that the modificational pattern OBL-NP-DET-modifier does not exist in non-cleft relativization contexts (cf. section 6.5), it may seem at first glance equally likely that (93a) involves some marked type of attributive modification, found only in cleft contexts, rather than true relative clause modification.

Evidence for clause-projecting NPs comes from future clefts. The future marker *mi* may introduce either verbal (94a) or nominal (94b) cleft residues in future con-

texts, similarly to the determiner *i?* (95).<sup>36</sup> Because future *mi* is not a determiner, but either a complementizer or a tense head, then assuming that complementizers and tense heads do not select directly for NPs, (94b) provides strong evidence that NPs may project covert clausal structure.<sup>37</sup>

- (94) a. ixí? (t qəy'-mín) mi pa?-nt-ís.  
 DEM (OBL write-INSTR) FUT fold-DIR-3SG.ERG  
 That's the paper he is going to fold.

- b. ixí? (t tətwtí) mi ylmíx<sup>w</sup>əm.  
 DEM (OBL boy) FUT chief  
 That's (the boy) who will be a chief.

- (95) a. ixí? (t qəy'-mín) i? pa?-nt-ís.  
 DEM (OBL write-INSTR) DET fold-DIR-3SG.ERG  
 That's the paper he folded.

- b. ixí? (t sqəltmíx<sup>w</sup>) i? ylmíx<sup>w</sup>əm.  
 DEM (OBL man) DET chief  
 That's (the man) who is the chief.

I conclude that nouns may project covert clausal structure in some cases. The implication is that a simple *i?* DP (96a) may be ambiguously construed as containing

<sup>36</sup>Shuswap clefts can also introduce their residues with a future complementizer *me?*, as data from Kuipers (1974, 83) shows:

- (i) yé-ək<sup>w</sup>e yyéy me? mlmálq<sup>w</sup>ns.  
 it-QUOT DEM FUT IRED-paint-DIR?-3SG.ERG?  
 This is the one he's going to paint.

<sup>37</sup>Interestingly, while future *mi* may introduce either a verb or a noun, it is apparently not able to introduce an adjective.

- (i) \*ixí? axá? mi caħ.  
 DEM DEM OBL red  
 This is the one that will be red.

In cleft contexts, the distribution of the morphemes *t* and *mi* provide us with a diagnostic for identifying the lexical category of the constituents they precede, since *t* may only introduce a noun, not a verb or an adjective (cf. section 8.5.2).

covert clausal structure (96b) in modifier positions.<sup>38</sup>

(96) a. Simple *i?* DP:

[*i?* [<sub>SƏX<sup>w</sup></sub> pɪχəm<sub>NP</sub>]<sub>DP</sub>]

b. Headless relative clause *i?* DP:

[*i?* ⊙<sub>1</sub> [[(*i?*) ⊙<sub>DP</sub>]<sub>2</sub> sƏX<sup>w</sup> pɪχəm *t*<sub>2 CP</sub>]<sub>DP</sub>]

Headed future cleft residues pattern like other relative clauses in allowing both post-nominal (97a) and pre-posed (97b) ordering.

(97) a. **axá?** t yámχ<sup>w</sup>a? mi k<sup>w</sup>úl-ən, lut yaʔχís.  
DEM OBL cedar.bark.basket FUT make-[DIR]-1SG.ERG NEG DEM

**This** is the basket I'm gonna make, not that one.

b. **axá?** mi k<sup>w</sup>úl-ən t yámχ<sup>w</sup>a?, lut yaʔχís.  
DEM FUT make-[DIR]-1SG.ERG OBL cedar.bark.basket NEG DEM

**This** is the basket I'm gonna make, not that one.

As such, one expects evidence for movement in future clefts (cf. section 6.3.3), but this is not the case. Specifically, since *yámχ<sup>w</sup>a?* 'cedar bark basket' is an underlying core object of the relative clause predicate *mi k<sup>w</sup>úl-ən* 'I will make x', the prediction is that an *i?* determiner should surface before *mi*, assuming that *mi* is in either C or T position. The fact that *i?* does not surface strongly suggests that there is a filter deleting the determiner in this environment, similar to the 'doubly-filled complementizer' effect in English (Henry Davis, p.c.).

The future clefts discussed so far in this section are in principle amenable to the equative analysis. In contexts for which an adjunct such as a PP is clefted however (98a), future clefts are not straightforwardly amenable to an equative analysis, since PPs are not referential expressions. This brings us to a more general problem, concerning adjunct clefts. Future *mi* alternates with the complementizer *ki?* in non-future adjunct clefts (98b), which I now discuss in further detail.

<sup>38</sup> An *i?* DP in a modifier position may also be ambiguously analyzed as bare CP, e.g. [[*i?* ⊙<sub>DP</sub>]<sub>2</sub> sƏX<sup>w</sup> pɪχəm *t*<sub>2 CP</sub>], though since I have already shown that cleft residues are categorially DPs in Okanagan, I do not further discuss this possibility.

- (98) a.  $\acute{k}l$  sən-kʰaw-mən mi kʷu ʔúlus.  
 LOC LOC-pray-INSTR FUT 1PL.ABS gather.  
 It's at the church that we will gather.
- b.  $\acute{k}l$  sən-kʰaw-mən kiʔ kʷu ʔúlus.  
 LOC LOC-pray-INSTR COMP 1PL.ABS gather.  
 It's at the church that we gathered.

## 8.9 Chapter Addendum B: Adjunct Clefts

I now move to a discussion of a different type of Okanagan cleft, which I refer to as *adjunct clefts*. Adjunct clefts cannot be analyzed as DP equatives, since neither the focused constituent nor the residue clause can be analyzed as DPs. The constituent in focus position is an underlying adjunct of the residue clause, usually a PP or other locative or temporal adverbial. The residue clause is introduced by the complementizer *kiʔ*, rather than by an *iʔ* determiner.<sup>39</sup>

In (99a) below, a PP *iʔ  $\acute{k}l$  nkʷrítʰkʷ* ‘at Glimpse Lake’ occupies the focus position, and a CP *kiʔ kn kspúlxaʔx* ‘that/where I’ll be camping’ occurs in residue position. In (99b) an adverbial demonstrative *ikliʔ* ‘over there’ is in focus position. Simple demonstratives can occur in the focus position of an adjunct cleft if they denote passive agents (99c), for example.

<sup>39</sup>I have at least one example from Hebert’s recorded Upper Nicola corpus where a temporal adjunct occurs in focus position, while the residue clause is introduced by *iʔ* rather than *kiʔ*:

- (i) ixíʔ I kʷukʷnásqət iʔ xarntín iʔ sʰaʔcnmítʰaʔ.  
 DET LOC few-days DET soak-DIR-1SG.ERG DET deer-skin  
 It's for a few days that I soaked the deer hide.

These are judged ungrammatical when tested in an elicitation context, however.

- (99) a. *ixíʔ iʔ kʰl n-kʷr-ítʰkʷ kiʔ kn ks-púlʰx-aʔx.*  
 DEM DET LOC n-yellow-water FOC 1SG.ABS FUT-camp-INCEPT  
 It's at Glimpse Lake that I'll be camping.
- b. *iklʰíʔ kiʔ kʰl-kʰlaxʷ.*  
 DEM FOC LOC-evening  
 It's over there that he went out of sight.
- c. *ixíʔ kiʔ wíkəntəm.*  
 DEM FOC see-DIR-PASS  
 He's the one that was seen.

Adjunct clefts do not allow the pre-posed residue clauses (100), unlike other clefts, which suggests that the residues are not relative clauses, but bare CPs.<sup>40</sup>

- (100) *\*ixíʔ kiʔ kn ks-púlʰx-aʔx iʔ kʰl n-kʷr-ítʰkʷ.*  
 DEM COMP 1SG.ABS FUT-camp-INCEPT DET LOC n-yellow-water  
 It's up at Glimpse Lake that I'll be camping.

As with other Okanagan clefts, adjunct clefts lack any presupposition of existence. To illustrate, consider that the adjunct cleft in (102) below is good as an answer to either question in (101). As an answer to either question, the focused constituent in (102) *kʰl nkʷrítʰkʷ* 'at Glimpse Lake' is not given or presupposed in any sense. The residue clause *kn kspúlʰxaʔx* 'I am going to camp' is given when it is included in an answer to (101a), but it is not presupposed as an answer to either (101a) or (101b).

- (101) a. *ha kʷ ʔaws-púlʰx-aʔx ʔápnaʔ sklaxʷ?*  
 YNQ 2SG.ABS go-camp-INCEPT now evening  
 Are you gonna go camping this evening?
- b. *stim an-cáwt ʔapnáʔ sklaxʷ?*  
 what 2SG.POSS-doings now evening  
 What did you do today?

<sup>40</sup>Also, similarly to Thompson Koch (2008a), locative adjunct cleft residues are not introduced by prepositions, as might be expected if they were formed via the same processes as locative relative clauses. See section 9.3.2.

- (102) k'ł n-k<sup>w</sup>r'-itk<sup>w</sup> ki? kn ks-púl-x-a?x.  
 LOC n-yellow-water COMP 1SG.ABS FUT-camp-INCEPT  
 I'm camping at Glimpse lake.  
 (Literally, It's at Glimpse Lake that I'm camping.)

It is unclear whether adjunct clefts carry an implicature of exhaustivity, similar to other clefts in Okanagan. Data like (103a) are consistent with an analysis whereby adjunct clefts have no exhaustivity effect, and I have so far been unable to determine that non-cleft data involving locative adjuncts (e.g. 103b) are infelicitous in contexts for which adjunct clefts are not. If it turns out that adjunct clefts lack any exhaustivity effect, this could be due to the fact that there is no *i?* determiner to contribute an exhaustivity implicature.<sup>41</sup>

- (103) a. k'ł sən-k'faw-mn ki? k<sup>w</sup>u yaʔp, uʔ (nix<sup>w</sup>) k'ł  
 LOC LOC-pray-INSTR COMP 1PL.ABS arrive(PL) CONJ (also) LOC  
 sn-maʔ- máyaʔ-tən.  
 LOC-RED-teach-INSTR  
 We got to the church, and then we went to the classroom.
- b. kn ckicx tl sən-k'faw-mən.  
 1SG.ABS arrive LOC LOC-pray-INSTR  
 I came from church.

Though it may be possible to analyze adjunct clefts as equatives, how exactly this analysis might be spelled out is unclear, and something I leave for future work.

---

<sup>41</sup>While it may be possible to deconstruct *ki?* into a sequence *k* 'complementizer' plus *i?* determiner, this is speculative.



## Chapter 9

# Conclusion

This closing chapter first summarizes the main findings of this dissertation (section 9.1), then discusses implications of my analysis for Okanagan grammar and future work in the language (section 9.2). I then conduct a survey of DP-DP structures in clefts across a handful of Salish languages and discuss whether data in these languages are amenable to an equative analysis (section 9.3). I end this chapter, and this dissertation, with some implications of my analysis for theories of non-verbal predication (9.4).

### 9.1 Summary of Findings

This dissertation has argued for a syntactic, semantic, and information structural distinction between direct predications in Okanagan, which involve a lexical predicate and a DP argument with no copula or other functional intermediary; and DP-DP structures, which are projections of a null equative head (Heycock and Kroch, 1999; Romero, 2005). Okanagan presents an interesting case study for testing theories of copular predication: since there is no overt copula (N. Mattina 1996a), many of the standard diagnostics in the literature for identifying a particular copular sentence type are inapplicable. Nevertheless, I use independent evidence for syntactic constituency and semantic type in tandem with word order constraints to reach useful generalizations about how predication and equation is manifested in Okanagan.

English small clauses and copular clauses are canonically subject-initial (Moro, 1997), and the range of predicates which can occur before their subjects is normally restricted to DP predicates. For Okanagan, subject-predicate word order is remarkably free *except* in the case of predications involving two DPs. The pattern of ‘inverse’ predication in Okanagan thus appears to be opposite to that found for English. The full patterns are given below for both languages (cf. Table 9.7 for the Okanagan data).

**Table 9.1:** ‘Canonical-Order’ Predication in Okanagan and English

| Okanagan | English | ‘Canonical’                             |
|----------|---------|---|
| ✓        | ✓       | John is a doctor                        |
| ✓        | ✓       | Mary is boss                            |
| ✓        | ✓       | John is proud of his daughters          |
| ✓        | ✓       | John is the best candidate for the job. |

**Table 9.2:** ‘Inverse-Order’ Predication in Okanagan and English

| Okanagan | English | ‘Inverse’                               |
|----------|---------|---|
| ✓        | *       | A doctor is John                        |
| ✓        | *       | Boss is Mary                            |
| ✓        | *       | Proud of his daughters is John          |
| *        | ✓       | The best candidate for the job is John. |

The ‘inverse’ Okanagan pattern, as displayed in Table 9.2, suggests that Higgins’ specificational type copular sentences, where a final referential DP is in focus and interpreted exhaustively (Percus, 1997), are not possible. This is not specifically due to a ban on syntactic inversion for DPs, since none of the inverse patterns in Okanagan are derived by syntactic inversion (Mikkelsen, 2005; den Dikken, 2006) (sections 7.2.2 and 7.3.2). What distinguishes DPs in Okanagan from lexical categories such as NP is that they are a referential type Longobardi (1994);

Matthewson (1998), and cannot type shift. I have claimed that the word-order requirement in Okanagan DP-DP structures derives from the fact that they are structurally distinct, projections of a null equative head (Heycock and Kroch, 1999).

Explaining the absence of inverse DP-DP structures in Okanagan raises some interesting questions regarding the nature of equation in Okanagan. The fixed information structure cannot be explained on purely pragmatic grounds, since the ungrammaticality of the inverse ordering is not related to any old information requirement on specificational subjects (Heycock and Kroch, 1999; Mikkelsen, 2005), but rather to the semantic type of its DP complement. Okanagan DP-DP structures always involve a directly referential DP (a proper name or demonstrative) or a referential *i?* DP, and a non-directly referential DP headed by the determiner *i?* (section 7.5). *i?* DPs display independent evidence for allowing intensional readings, such as individual concept readings (Enç, 1981; Demirdache, 1996) and generic readings (Chierchia, 1998). I have claimed that the Okanagan equative head encodes a semantic asymmetry, and maps the intension of an individual to its extension (type  $\langle\langle s, e \rangle, \langle e, t \rangle\rangle$ ) (Romero, 2005; Comorovski, 2007). The semantics, by itself, does not derive the word order restriction of DP-DP structures, however. Information structure also plays a role.

The determiner *i?* carries a maximality implicature (section 5.3.3). In an equative context, the sentence as a whole will carry an exhaustivity implicature, such that the referent of the directly-referential DP will be interpreted as the only individual equivalent to the referent of the intensional *i?* DP (section 7.4.1). By assuming that the directly-referential DP is also assigned a syntactic feature ‘F’ (interpretable as focus) (Jackendoff, 1972) by the equative head, and that focus is aligned to the left edge of an intonational phrase (Koch, 2008a), the word order restriction of DP-DP structures, and the absence of specificational sentences from the language, is accounted for. Analyzing Okanagan DP-DP structures as having a fixed information structure via a structural focus position receives additional support from evidence that they are information-structurally and morpho-syntactically equivalent to Okanagan clefts.

Since maximality is only an implicature for Okanagan *i?* DPs, and the exhaustivity effect in equatives stems from the determiner’s maximality implicature, the prediction is that exhaustivity too will be an implicature and not an entailment in

Okanagan. This means that although DP-DP structures do have readings that are directly analogous to inverse specificationals in English, where the *initial* DP is interpreted exhaustively, this is not necessarily the case: in contexts for which the determiner's maximality implicature is not satisfied, 'pseudo-predicational' readings of DP-DP structures are possible. This is most clearly demonstrated by the fact that in a non-maximal context, a DP-DP structure will be pragmatically equivalent to a direct predication. This is predicted by the domain restriction semantics which I motivate for *i?* in chapter 5.3.3.

In section 7.6 I discuss predications involving either a demonstrative and a proper name, a demonstrative-associated DP and a proper name, or two proper names. These might in principle be analyzable as equatives, but I argue that they are not, based primarily on the fact that demonstratives are never predicates, proper names *can* be predicates under certain circumstances, and that a predicative proper name can precede a subject demonstrative, demonstrative-associated DP, or proper name for these cases, similarly to other types of direct predication. Descriptively, these sentences fit Higgins' identificational class (at least the examples with demonstratives), but in actuality, I argue that they are a form of direct predication, with the caveat that examples involving simple demonstratives and proper names may in some cases analyzable as truncated clefts, and hence equative. This analysis effectively means that while proper names are not predicates in equative structures, due to the selectional restrictions of the equative head, they may be predicates in a direct predication. Assuming that identificational sentences may be reduced to a form of direct predication (Heller, 2005), Higgins' taxonomy may be reduced to only two types for Okanagan: equative and predicational (cf. Table 7.3).

There are apparent cases of 'inverse' DP-DP structures, however. In contexts for which a DP-DP structure does not answer a WH-question (e.g. in an out-of-the-blue context, or within a monologue), an *i?* DP may sometimes precede a directly referential DP. I suggest that these may be instances of either predicate topicalization or left dislocation, rather than true specificationals. If a fronted *i?* DP is outside of the intonational phrase containing a focused subject, then focus alignment constraints still hold, although the acoustic work remains to be done.

DP-DP structures are information-structurally and morpho-syntactically equivalent to clefts in Okanagan, the only difference between the two being that for a

cleft, the second DP consists of either a headed or headless relative clause (cf. chapter 6). Information structurally, clefts include (i) an exhaustivity implicature rather than a presupposition or entailment (Davis et al., 2004); (ii) the absence of any presupposition of existence (Davis et al., 2004); and (iii) a ban on focus occurring finally. In tandem with morpho-syntactic evidence, I claim that Okanagan clefts are also equative structures.

An equative analysis of clefts is novel in the Salish literature, though Shank (2003) and Koch (2008a) consider this as a possibility for Northern Straits and Thompson, respectively, before settling on a predication analysis. An equative analysis is also not entirely without motivation in the theoretical literature. Percus (1997), for example, derives clefts from specificational pseudoclefts, which in turn Heycock and Kroch (1999) argue to be equative. I show that Okanagan supports theories of English clefts such as Percus (1997) and Hedberg (2000) since (i) the Okanagan ‘clefting’ demonstrative *ixíʔ* was shown to be an underlying constituent with the residue DP, and (ii) the semantics/pragmatics of Okanagan clefts may be traced to the semantics/pragmatics of the determiner *iʔ*. Since Okanagan clefts are derived from the equivalent of inverse specificational sentences, where the residue clause is generated in final position, extraposing is unnecessary.

## 9.2 Implications for Okanagan Grammar

This section summarizes the major empirical contributions of this thesis before discussing further questions. These further questions may be thought of as setting a research agenda for future work in the area.

### 9.2.1 Empirical Contributions

This dissertation has made several important empirical contributions to our understanding of Okanagan syntax and semantics. I will briefly discuss the more major contributions in the following areas:

- a. Determiner Semantics (chapter 5)
- b. Relative Clauses (chapter 6)
- c. Predication and Equation (chapter 7)

- d. Clefts (chapter 8)

### **Determiner Semantics**

Chapter 5 consists of a detailed investigation of the semantic properties of the Okanagan determiner *iʔ* and the oblique marker *t* in argument contexts. It was shown that Okanagan shares many of the same semantic properties as Lillooet assertion-of-existence determiners (Matthewson, 1998, 1999) and Squamish deictic determiners (Gillon, 2006, 2009a), but crucially permits narrow scope readings and intensional readings. Other than N. Mattina (2006) which investigates determiners in Moses-Columbian, this chapter represents the only thorough account of determiner semantics in a Southern Interior Salish language. My analysis provides crucial points of comparison with determiners in Northern Interior Salish, supports N. Mattina's analysis of Moses-Columbian determiners with comparative evidence, and provides a basis for understanding the semantics of Okanagan equative DP-DP structures and clefts.

### **Relative Clauses**

Chapter 6 discusses nominal modification in Okanagan, and the difference between attributive modification and relative clauses. I show that Okanagan relative clauses provide evidence for clause-internal movement of a DP to the left-periphery of CP, a pattern that has been established for the Northern Interior languages of Lillooet (Davis, 2004, 2010a) and Thompson (Kroeber, 1997; Koch, 2006). Like other Salish languages, Okanagan allows both headed and headless relative clauses, as well as both head-initial and head-final variants.

### **Predication and Equation**

Chapter 7 represents the first detailed investigation of predication and equation in a Salish language, and elucidates previous observations made by N. Mattina (1996b) and A. Mattina (2000), supporting their descriptive statements concerning the existence of equative structures. They claim that there 'is no copula' in Okanagan equatives (Mattina, 1996b, 30). While this is true in the sense that there is no verb

‘to be’, I have claimed that there must be a null functional head in equative structures, since neither of the two DP constituents can be a predicate. The semantics of the equative head fit with intensionality-based accounts of English equatives (Romero, 2005; Comorovski, 2007), and the Okanagan data support the possibility of reducing Higgins’ taxonomy to two types, predication and equative, for at least some languages. The Okanagan equative data additionally support Koch’s (2008a) analysis of Thompson River Salish, where a focused constituent must align to the left-edge of an intonation phrase; however, focus-alignment facts are less clear for direct predication.

### **Clefts**

Chapter 8 shows that Okanagan clefts are information-structurally equivalent to simpler DP-DP structures, supporting an analysis whereby both types are syntactically equivalent. The semantic and pragmatic properties of Okanagan clefts support previous investigations of clefts in Thompson (Koch, 2008a, 2009; Koch and Zimmermann, 2009), as well as Lillooet and Northern Straits (Davis et al., 2004), though they warrant a different syntactic analysis. Residues in Okanagan clefts are DPs, rather than bare CPs, as evidenced by the fact that the residues may contain an overt NP head. This difference raises some interesting typological and historical questions, some of which I seek to address later in section 9.3.

### **9.2.2 Further Questions**

There are many unanswered questions, and much further work to be done for Okanagan in the areas of predication, focus, and clefts, as well as more generally in the areas of clause-level syntax and semantics. I seek to address a few of these here in this section.

#### **Acoustic Evidence for Focus**

Perhaps the most pressing unanswered questions stem from the lack of acoustic data for Okanagan DP-DP structures and clefts. Barthmaier (2004) establishes the existence of intonational phrases in Okanagan by acoustically analyzing several narrative passages from A. Mattina and DeSautel (2002); however no further work

has been done in this area. Information-structurally, it can be established that focus aligns to the left in Okanagan equatives; however a detailed investigation of the acoustic correlates of focus similar to that of Koch (2008a) for Thompson River Salish remains to be carried out. I have assumed, based on my own impressions, that there is no acoustic correlate to focus in Okanagan, similar to Thompson. A detailed acoustic analysis may potentially shed light on unexplained cases of inversion (section 7.7), and confirm whether these may or may not be cases of predicate topicalization, for example.

As a related issue, a focused constituent in an Okanagan direct predication does not appear to be strictly subject to a FOCUS-LEFT constraint (Koch, 2008a), unlike the case for the focused DP in an equative structure. This is indicated by the availability of flexible subject-predicate word ordering for direct predications in the context of a WH-question. While direct predications involving headless relative clause arguments (i.e. NPCs) seem to show a stronger preference for focus-predicate initial ordering, the reasons for this variability, as well as the more general difference between focus alignment in direct predications versus equatives, remain unclear. Koch (2008a) found that fronted subjects in Thompson NPCs constitute a separate intonation phrase, and that as such, a focused predicate in final position may still be left-most within its intonation phrase. I suggested that unexplained cases of inverse DP-DP structures might be explained similarly (section 7.7), though the acoustic work has yet to be undertaken.

### **Semantics of Demonstratives**

Another area in need of further research concerns the semantics of demonstratives (cf. cursory remarks in section 8.6.2). In this thesis, I have assumed that simple demonstratives are directly referential (Kaplan, 1977, 1989) argument expressions based on evidence that their distributions are equivalent to other DPs in argument contexts, and that they cannot function as syntactic predicates. Additionally, based on distributional and pragmatic evidence I have made the blanket assumption that demonstratives adjoined to *i?* DPs and demonstratives adjoined to *t* NPs are both categorially DPs (cf. section 4.6.1, and Matthewson and Davis (1995) for Lil-looet). It is unclear however what the semantic contribution of demonstratives is in



contexts in which they adjoin to a DP, especially given that they appear to be transparent to intensional readings. It is also unclear what the internal syntax of these structures is. A successful answer to these questions may potentially have major ramifications for my analysis of Okanagan clefts. While I believe there is good evidence that demonstratives cannot be simple property denoting expressions, it may be worthwhile investigating the possibility that demonstratives may be higher type predicates (King, 2001). A related problem concerns so-called ‘discourse’ uses of demonstratives, and how these compare with demonstratives in argument contexts (Lyon (2010b), cf. section 8.6.2).

### **Discourse Constraints on Inversion**

It is an interesting fact that WH-questions in Okanagan do not license specificational sentences, even in cases where an initial *i?* DP is discourse old (Birner, 1996; Mikkelsen, 2005), and no less interesting that sentences resembling specificationals are possible in out-of-the-blue and ongoing topic contexts (section 7.7). Explaining this pattern from the larger perspective of whether there may or may not be universal constraints on DP ‘inversion’ remains a major area of further study. While it seems clear that being discourse-old is not a universally sufficient condition for a DP being able to invert around a subject (Mikkelsen, 2005), for Okanagan at least, it seems likely that ‘focus’ will ultimately be the more relevant factor in explaining this pattern.

### **Question/Answer Congruence**

In sections 7.4.1 and 8.3.2 it was shown that in question/answer contexts for which an exhaustive answer is required, a DP-DP structure or cleft must be used, rather than a direct predication. I suggested that this may be due to a conversational implicature arising from the use of *i?* in answer contexts: since direct predications do not imply exhaustivity, it is more informative for a speaker to use a DP-DP structure or cleft in a context for which an exhaustive reading is required. This is reminiscent of the fact that in English, a speaker cannot felicitously use a marked rising-intonation pattern in a context for which an exhaustive answer is required, and the Okanagan pattern makes sense assuming that intonation does not signal

exhaustivity in the language. This needs to be confirmed by acoustic evidence, however.

### **Focus and Focus-Sensitive Operators**

The syntactic correlates of focus remain poorly understood in Okanagan, and little work has been done in terms of investigating the role which focus-sensitive operators like *kmix/kmax* ‘only’ play in Okanagan. Other related topics in need of further work include second-occurrence focus and focus projection.

### **Nominal Modification**

While the groundwork has been laid for a thorough analysis of nominal modification in Okanagan (chapter 6), there remain many unanswered questions. For example, head-final pattern 3, as discussed in Table 6.4 where the oblique marker precedes both the head and the modifier, is consistent with both attributive and relative clause modification. The question arises as to whether it is possible to disambiguate this pattern. Regarding head-initial pattern 3, which I suggest is indicative of relative clause modification, is there a way of establishing that these cases involve clause-internal movement? As another issue for further research, Davis (2011) discusses post-nominal attributive modification in Lillooet, and it remains unclear whether this is possible in Okanagan. Perhaps most pressing is the question of why patterns of relative clause modification differ for cleft versus non-cleft contexts. For example, head-initial pattern 6 is ungrammatical in non-cleft contexts, but grammatical for a cleft residue. While there is evidence for clause-internal movement of a DP in cleft residues, in keeping with relative clauses in other syntactic contexts, it is less forthcoming for clefts.

## **9.3 Implications for Salish**

The existence of DP-DP structures in Okanagan leads me to ask the following questions: do any other Salish languages have DP-DP structures? If so, are they similar to or the same as clefts in these languages? Is it possible for the equative analysis to be extended to DP-DP structures and clefts in other Salish languages? The answers to all these questions appear to be ‘yes’. This section investigates data

from other Salish languages, the overall goal being to provide future researchers interested in predication and equation across Salish with a data base and a set of generalizations from which to begin.

Table 9.3 below is intended to provide a key to understanding different structures across Salish in terms of how strongly a given structure supports the equative hypothesis. The strongest evidence for equatives come from DP-DP structures with no overt copula, and where each DP is headed by a non-vacuous determiner that selects for simple NPs (line 1). Cases where one of the constituents is a demonstrative or proper name provide less strong evidence, since these may be predicative in some Salish languages (line 2). Variants of lines 1-2 which include an overt copula or non-constituent demonstrative (lines 3-4) constitute still weaker evidence, since these elements may also be used in clefts, which are not necessarily equative. Variants of lines 1-2 which include a demonstrative (D) or complementizer (C) headed clause as one of the constituents (lines 5-6) constitute even weaker evidence, since depending on the language, the status of these constituents as DPs may be suspect. Finally, lines 7-8 represent canonical cases of clefting in Salish, and represent the weakest evidence for equatives.<sup>1</sup> The analysis of clefts as equatives is contingent on both focus and residue being categorially DPs. A no less valuable perspective may be gleaned from turning Table 9.3 on its head; namely, whether it may be the case that simple DP-DP structures in a particular Salish language may be analyzed as clefts.

---

<sup>1</sup>I do not represent the possibility of null determiners in Table 9.3, although these are common in Southern Interior Salish. Unless there is strong independent motivation for assigning a DP structure in these cases, structures involving null determiners do not offer particularly strong evidence for equation.

**Table 9.3:** DP-DP Structures as Evidence for Equation across Salish: Arranged by Constituency Type from Strongest to Weakest Evidence

|   | Overt Copula or Demonstrative | First DP<br>'focus'          | Second DP<br>'residue'       |
|---|-------------------------------|------------------------------|------------------------------|
| 1 | *                             | [D NP]                       | [D NP]                       |
| 2 | *<br>*                        | [DEM / P.N.]<br>[D NP]       | [D NP]<br>[DEM / P.N.]       |
| 3 | ✓                             | [D NP]                       | [D NP]                       |
| 4 | ✓<br>✓                        | [DEM / P.N.]<br>[D NP]       | [D NP]<br>[DEM / P.N.]       |
| 5 | *<br>*                        | [D NP]<br>[D/C clause]       | [D/C clause]<br>[D NP]       |
| 6 | *<br>*                        | [DEM / P.N.]<br>[D/C clause] | [D/C clause]<br>[DEM / P.N.] |
| 7 | ✓<br>✓                        | [D NP]<br>[D/C clause]       | [D/C clause]<br>[D NP]       |
| 8 | ✓<br>✓                        | [DEM / P.N.]<br>[D/C clause] | [D/C clause]<br>[DEM / P.N.] |

What follows are fragmentary data sets from other Salish languages, exhibiting patterns shown in Table 9.3. How well each different language supports the equative hypothesis depends on whether data corresponding to lines 1-4 are possible in a particular language, and whether cleft residues may be safely analyzed as DPs. Some languages will rank more highly with regards to Table 9.3 than other languages, as we shall see. I should reiterate that this is only a preliminary survey, and that I make no definitive claims with regards to any other Salish languages besides Okanagan. The data from each language investigated here merit further study.

One limiting factor of this survey is the absence of negative data from the corpus for languages whose primary sources are texts or text-based grammars. For example, in most languages I have been unable to verify the extent of subject-predicate word order flexibility, or the presence or absence of specificational sen-



- b. *iše*            *ay̓t*.  
 DEM.DIST tired  
 ‘He gets tired’. (Kalispel, Tachini Pete p.c. 2011)
- c. *čon* *ilmíx<sup>w</sup>m*.  
 John chief  
 ‘John is the chief’ (Kalispel, Tachini Pete p.c. 2011)
- d. *ɬu* *smʔem* *sx<sup>w</sup>mimeyeʔm*.  
 DET woman teacher  
 The woman is a teacher. (Kalispel, Tachini Pete p.c. 2011)
- (2) a. *pus* *ɬiheʔ*.  
 cat DEM.PROX  
 ‘This is a cat’. (Kalispel, Tachini Pete p.c. 2011)
- b. *smʔem* *ɬu* *sx<sup>w</sup>mimeyeʔm*.  
 woman DET teacher  
 The teacher is a woman. (Kalispel, Tachini Pete p.c. 2011)

Kalispel also exhibits what seem to be DP-DP structures (3), with an NP being introduced by the determiner *ɬu(ʔ)*. (3e) is particularly compelling evidence for equative structures in the language (cf. line 1 in Table 9.3). Furthermore, the indefinite translation of the second DP in (3e) indicates that like Okanagan, Kalispel DP-DP structures permit pseudo-predicational readings.<sup>2</sup>

- (3) a. *iše*            *ɬu* *pus*.  
 DEM.DIST DET cat  
 ‘That is a cat’. (Kalispel, Tachini Pete p.c. 2011)
- b. *šey̓*            *ɬu* *pus*.  
 DEM.DIST DET cat  
 ‘That is a cat’. (What I refer to is a cat.) (Kalispel, Tachini Pete p.c. 2011)

<sup>2</sup>The difference between *šey* (e.g. 3b) and *iše* (e.g. 3a) is unclear. The former *iše(ʔ)* is glossed as ‘DEM; deictic’ in Camp (2007, 109), while *šey*, or *šéʔi*, is glossed as ‘that; *šéʔi*, *šéʔ*, *šéʔ*’ in Camp (2007, 116). Based on translations, it seems that both might function as argument expressions, however there are distributional differences between the two, such that *iše(ʔ)* cannot occur finally (cf. 5-6).

- c. *iše*        *łu*    *ilmíx<sup>w</sup>m.*  
 DEM.DIST DET chief  
 ‘That specific person is a/the chief.’ (Kalispel, Tachini Pete p.c. 2011)
- d. *čon*    *łu*    *ilmíx<sup>w</sup>m.*  
 John DET chief  
 ‘John is the chief’ (Kalispel, Tachini Pete p.c. 2011)
- e. *łu*    *smʔem*    *łu*    *sx<sup>w</sup>mimeyeʔm.*  
 DET woman DET teacher  
 The woman is a teacher. (Kalispel, Tachini Pete p.c. 2011)

A complicating factor when studying DP-DP structures in Kalispel comes from the fact that bare-nominal arguments are allowed (this is a more general analytical issue for Southern Interior Salish, outside of Okanagan). In (4a), the object argument *sqélix<sup>w</sup>* is not introduced by any determiner, unlike the case for Upper Nicola Okanagan. (4b) either shows that demonstratives can occur in D-position, or else that a demonstrative can adjoin to a null-headed DP.

- (4) a. *hoy*    *čn*        *n-ʔułx<sup>w</sup>*    *u*    *wíč-(n)t-n*        *sqélix<sup>w</sup>*    *i*        *túʔ.*  
 then 1SG.ABS n-go.in and see-DIR-1SG.ERG people PART crowd  
 I went in and saw crowds of people. (Kalispel, Camp (2007, p.19, text III)
- b. *hoy*    *x<sup>w</sup>ist*    *hiʔé*        *łttwít.*  
 then walk DEM.PROX young.boy  
 Then the young man walked away. (Kalispel, Camp (2007, p.28, text IV)

Despite data showing that subject-final predications are possible (2), it seems clear that the Kalispel demonstrative *iše* cannot occur after the predicate. This is as expected for DP-DP structures (5) under the equative analysis I have proposed for Okanagan, but also seems to hold for direct predications (6), which is unexpected, assuming that the Kalispel demonstrative *iše* is cognate with Okanagan *ixíʔ*,<sup>3</sup> and assuming that it is able to function as an argument DP. Sarah Thomason (p.c. 2013) notes that *iše* may function as a discourse particle, though in this case its distribu-

<sup>3</sup>In Kalispel and Coeur d’Alene, proto-Salish plain velar obstruents /k/ and /x/ are palatalized to /č/ and /š/, respectively (Kuipers, 2002, 3).

tion is even more unexpected, given that discourse uses of Okanagan *ixíʔ* tend to occur in initial position (cf. Lyon (2010b)).

- (5) \*ɬu pus iše.  
 DET cat DEM.DIST  
 ‘That is the cat’. (Kalispel, Tachini Pete p.c. 2011)
- (6) a. \*pus iše.  
 cat DEM.DIST  
 That is a cat. (Kalispel, Tachini Pete p.c. 2011)
- b. \*ayx̣t iše.  
 tired DEM.DIST  
 He gets tired. (Kalispel, Tachini Pete p.c. 2011)
- c. \*ilmíx<sup>w</sup>m iše.  
 chief DEM.DIST  
 This is a chief. (Kalispel, Tachini Pete p.c. 2011)

There are also unexplained Kalispel data which seem to show a demonstrative *šeyʔ* as an argument of a determiner (7a,b), which may be evidence that some demonstratives are underlyingly predicative in Kalispel. The same is not true of *iše* (7c), which given that it is cognate with Okanagan *ixíʔ* is unsurprising. The data in (7a,b) are consistent with identificational interpretations, where the initial constituent is an NP predicate, and not a DP.

- (7) a. pus ɬu šeyʔ.  
 cat DET DEM.DIST  
 ‘That is a cat’. (Kalispel, Tachini Pete p.c. 2011)
- b. čon ɬu šeyʔ.  
 John DET DEM.DIST  
 ‘That is John’. (Kalispel, Tachini Pete p.c. 2011)
- c. \*ilmíx<sup>w</sup>m ɬu iše.  
 chief DET DEM.DIST  
 ‘This is a chief’. (Kalispel, Tachini Pete p.c. 2011)



There are clearer cases of identificational uses of DP-DP structures involving the determiner *ʔu(ʔ)* in Kalispel (8a), given that *ʔu(ʔ)* can precede a proper name in an introductory context. This is directly parallel to Okanagan identificational (cf. section 7.6.1), morphologically speaking (8b) since both languages utilize a variant of the particle *ʔ*. In Upper Nicola Okanagan, however *ʔə* and *ʔaʔ* are complementizers and not determiners. This does not necessarily mean that Kalispel *ʔu(ʔ)* may not function as *both* a complementizer and a determiner (cf. Thompson; Koch (2008a, 2009)). If *ʔu(ʔ)* is functioning as a complementizer in (8a), this potentially allows us to analyze the demonstratives in (7a,b) as referential expressions embedded within a CP, rather than predicative.<sup>4</sup>

- (8) a. *ʃey' ʔu čon.*  
 DEM.DIST DET John  
 'That is John'. (Kalispel, Tachini Pete p.c. 2011)
- b. *ixíʔ ʔə Spike.*  
 DEM.DIST COMP John  
 That is Spike. (Okanagan)

Nevertheless, Camp (2007) glosses *ʔu(ʔ)* as an 'article', and I take data like (3e) to be strong evidence that it is a determiner in at least some cases. Furthermore, from a cursory examination of the corpus, it has a distribution nearly identical to Okanagan *iʔ*. For example, it introduces passive agents:

- (9) *k<sup>w</sup>u sew-nt-m ʔuʔ t hin-p̓x̣<sup>w</sup>p̓x̣<sup>w</sup>út.*  
 1SG.ABS ask-DIR-PASS DET OBL 1SG.POSS-parents  
 My parents asked me. (Kalispel, Camp (2007, p.24, text III))

Textual data (Camp, 2007) show examples of DP-DP structures and clefts.<sup>5</sup> (10a,b) may be analyzed as equative under the assumption that the initial demonstrative is referential, while (10c) shows a clear example of a headless relative

<sup>4</sup>Notice also that (8a) is essentially the reverse of (7b). This may suggest that *ʔu* is being reanalyzed as a copula, rather than a determiner. See Gillon (2006) who assigns the non-deictic determiner *kwi* the semantics of a predication copula, although it does not have the distribution of a copula. The point is that a semantically weak (or vacuous) determiner may be reinterpreted as a copula, a linker of sorts, rather than being inherently associated with a following nominal.

<sup>5</sup>*ʃéyu* is glossed as a DEM (Camp, 2007, 116).

clause being introduced by a determiner.

- (10) a. *šéyu      ɬuʔ   hin-sqltmix<sup>w</sup>.*  
           DEM.DIST DET 1SG.POSS-man  
           ...That is my husband. (Kalispel, Camp (2007, 37))
- b. *šéʔi      ɬuʔ   q<sup>w</sup>uyeʔé   hin-k<sup>w</sup>ń-čst-míst-tn*  
           DEM.PROX DET 1SG.INDEP 1SG.POSS-try-hand-INTR.REFLEX-INSTR  
           ‘This is my fixing’. (Kalispel, Camp (2007, 53))
- c. *šéʔi      ɬuʔ   qeʔ-ełtčlálq<sup>w</sup>-i.*  
           DEM.PROX DET FUT-play.stick.game.again-FUT  
           This is the one who now is going to play. (Kalispel, Camp (2007, 78))

Kalispel clefts may be amenable to the equative analysis. In (11), an initial demonstrative may be analyzed as adjoined to a null-headed locative relative clause in focus position. The residue clause is an NP inflected with irrealis morphology (cf. section 5.2.9).

- (11) *šéʔi      ɬuʔ   i      k<sup>w</sup>íl-lqs = ɬuʔ   i-qs-mʔém.*  
           DEM.DIST DET LOC red-shirt = DET 1SG.POSS-U.POSS-wife  
           That one in the red shirt will be my wife.  
           (Kalispel, Kroeber (1995, II, 19))

Like Okanagan, initial demonstratives are most likely optional in clefts and DP-DP structures, as indicated by data like (12a). This example also shows that clefts with residues introduced by a future complementizer are possible in Kalispel, as in Okanagan (8.8) and Shuswap (9.3.2), where a doubly-filled complementizer filter prevents the future marker from co-occurring with a clause-introducing determiner. Though translations constitute weak evidence, the translation of (12a) suggests that there is a null focused demonstrative, and that the initial DP is topicalized, as represented in (12b). Though there is no overt mention of fire in the discourse, the speaker earlier identifies himself as ‘Sweat-Lodge’, and so assuming that there is a null focus in these cases, pragmatic inference may license topicalization.

(12) a. ʔuʔ hin-s-wl'-ši m hin-qł-ṣaṣ-mn.  
 DET 1SG.POSS-fire FUT 1SG.POSS-pay-INSTR  
 My fire, that will be my payment. (Kalispel, Camp (2007, 85))

b. ʔuʔ hin-s-wl'-ši, ∅ = m hin-qł-ṣaṣ-mn.  
 DET 1SG.POSS-fire FUT 1SG.POSS-pay-INSTR  
 My fire, that will be my payment. (Kalispel)

Clefts may also involve *čəmí* ‘only’ in Kalispel (13). The deictic *cí* is glossed as ‘this; deictic’ in Camp (2007, 104), and presumably forms a constituent with *səlṣaláṣts* ‘his friends’, exemplifying the tendency for demonstratives to take the place of determiners before nominals in argument positions (cf. 4b).

(13) m čəmí cí səlṣa-láṣt-s m qéʔ  
 FUT only DEM.DIST NOM-RED-friend-3SG.POSS FUT 1PL.TRANS  
 ʔíntm.  
 eat-TR-1PL.TRANS.  
 ...and we will eat only his friends. (Kalispel, Camp (2007, 59))

Finally, I found a textual example which exhibits a specificational ordering (14), similar to Okanagan data in section 7.7. This example may be analyzable as an identificational sentence.

(14) šéʔi ʔuʔ qeʔ-əł-t-cl-álq<sup>w</sup>-i ʔuʔ s-k<sup>w</sup>est-s  
 DEM DET FUT-play.stick.game-FUT DET name-3SG.POSS  
 s-ṣ<sup>w</sup>i-ṣ<sup>w</sup>i-t-t-twít.  
 Sleepy.Boy  
 The name of this man who was now going to play, was Sleepy Boy.  
 Literally: The one who was going to play the stick game, his name was  
 Sleepy Boy. (Kalispel, Camp (2007, 79))

### Coeur d’Alene

Relevant data from Coeur d’Alene is less forthcoming; however Doak (1997) and Reichard (1947) include data which might be considered to exemplify DP-DP

structures and clefts. The elements  $x^w\epsilon$ ,  $c\epsilon$ , and  $t\epsilon$  are listed as determiners in Doak (1997, 41), and the elements  $hi\dot{t}$  and  $t$  are listed as subordinators (i.e. complementizers) (Doak, 1997, 43), with  $t$  possibly being a reduced form of  $hi\dot{t}$ .

In (15a), a determiner  $x^w\epsilon$  introduces what is arguably an NP, though it is unclear whether the initial demonstrative  $ci?$  may be analyzable as a predicate. In (15b), the determiner introduces what is clearly an ergative-inflected relative clause.<sup>6</sup> Assuming that  $sma\dot{x}i?c\dot{n}$  ‘Grizzly Bear’ is being used as a proper name in this context, it may also be analyzable as a DP. A similar example is shown as (15c), where a different determiner  $t\epsilon$  introduces the residue. A third determiner  $c\epsilon$  introduces an ergative-inflected relative clause in (15d), however the focused constituent  $p\acute{i}p\epsilon?et$  ‘our father’ is straightforwardly analyzable as an NP, hence (15d) may be considered to be an NPC.<sup>7</sup> For lack of clearer evidence, all the examples in (15) may be analyzable as NPCs.

- (15) a.  $ci?$              $x^w\epsilon$      $hn-s-c\epsilon n-k^w\acute{i}nx^w-cn$ .  
              DEM.DIST   DET   1SG.POSS-NOM-CUST-LOC-take-mouth  
              That was my answer.            (Coeur d’Alene, Doak (1997, 272, ex. 525))
- b.  $k^wum$      $s-ma\dot{x}i?c\dot{n}$      $x^w\epsilon$      $\acute{s}i?t-\epsilon s-\acute{c}\epsilon(t)talqine?-nt-s$ .  
              then    Grizzly.bear   DET   first-CONN-stomp.on-DIR-3SG.ERG  
              Grizzly Bear was the first to stomp on him.  
              (Coeur d’Alene, Reichard texts: Lynx, 037)
- c.  $yo$              $p\acute{e}?c\dot{n}$      $t\epsilon$      $\acute{c}u$              $lut$      $h\epsilon$              $s-\acute{c}i-n?u\acute{t}x^w-s$ .  
              INTERJ   Lynx   DET   missing   NEG   COMP   NOM-CISL-enter-3SG.POSS  
              My! It is Lynx that is the absent one..  
              (Coeur d’Alene, Reichard texts: Lynx, 014d)
- d.  $\epsilon k^wn$      $\acute{t}u?$      $p\acute{i}p\epsilon?-et$              $c\epsilon$      $pulu(t)-st-x^w$ .  
              say    well   father-1PL.POSS   DET   kill-CAUS-2SG.ERG  
              They said “It is our father that you killed.”  
              (Coeur d’Alene, Reichard texts: Coyote Steals Son’s wife, 120b)

<sup>6</sup>Shannon Bischoff has provided the glosses for the Reichard text examples. I leave the Coeur d’Alene in its original transcription rather than converting it to the Americanist orthography.

<sup>7</sup>Though it is possible that  $p\acute{i}p\epsilon?-et$  ‘our father’ is a DP, albeit with a null determiner.

Example (16) comes from a text, and shows a topicalized DP consisting of a demonstrative and an NP (no determiner), followed by a focused DP (in bold type here), and what appears to be a headless relative clause introduced by a complementizer *h:ɬ*, which is presumably the same complementizer *hiɬ* listed in (Doak, 1997, 43), minus the vowel. These data suggest that Coeur d’Alene data with clear examples of focused DPs may not be analyzable as equatives, and supports an analysis of the data in (15) as examples of NPCs.

- (16)    *hɔi*    *x<sup>w</sup>iýā*            *ɬ:tcɪ’p*    ***ɬā***    ***tsār<sup>w</sup>tsi’ntɕn***    *h:ɬ*  
          then DEM.PROX bucket DET coyote’s.son COMP  
          *sāx<sup>w</sup>ts*.  
          pack-DIR-3SG.ERG  
          Then this bucket, Coyote’s youngest was the one who packed it.  
          (Coeur d’Alene, Reichard texts: Badger and Coyote)

Data involving focused independent pronouns show that residues are not necessarily introduced by either a determiner or a complementizer. In (17a), the residue is introduced by future *čɛɬ*, perhaps due to a double-filled complementizer filter (cf. Okanagan and Shuswap). In (17b), the residue is introduced by what Bischoff glosses as a ‘connective’ but which I assume is a complementizer, following Doak (1997, 43), rather than a determiner *ɬɛ*. Assuming that *ɬ* in (17b) is indeed a complementizer, and thus indicative a true cleft structure (cf. 16), the focused independent pronoun may be analyzable as a DP.<sup>8</sup>

- (17) a. *nɛʔk<sup>w</sup>un*    *ɬɛ*    *smyiw*    *čɛʔ*    ***čn***            ***ʔɛng<sup>w</sup>t***    *čɛɬ*    *čn*    *ʃɛminč*  
          think        DET Coyote ought 1SG.ABS 1SG.INDEP FUT like COMP  
          *hɛ*        *ʔtaq<sup>w</sup>in*.  
          Snipe  
          Coyote thought, “I ought to be the one who is liked by Snipe...”  
          (Coeur d’Alene, Reichard texts: Coyote Steals Son’s Wife, 004a)

<sup>8</sup>Although the fact that absolutive morphology attaches to them rather seems to indicate that independent pronouns are predicates, at least from the Okanagan perspective.

- b.  $h\epsilon$        $\check{c}n$        $?eng^wt$        $\dagger$        $c\epsilon-n-k^win-[n]t-s-n$ .  
 COMP 1SG.ABS 1SG.INDEP COMP CUST-n-take-DIR-2SG.ACC-1SG.ERG  
 I am the one who saved you.  
 (Coeur d'Alene, Reichard texts: Coyote Steals Son's Wife, 132b)

I have found several examples of specificational-like word orderings in the corpus. (18a), ironically, appears at first glance to be the strongest evidence thus far for equatives in Coeur d'Alene; however, the translation indicates that the proper name is an appositive of sorts, and that it might be better analyzed as involving a null focus, as in (18b).

- (18) a.  $x^w\epsilon$   $hn-s-q^w\acute{\epsilon}-sq^w\epsilon s-\epsilon?$   $x^w\epsilon$  Ernie...  
 DET 1SG.POSS-NOM-son DET Ernie  
 It was my son, Ernie ... (Coeur d'Alene Doak (1997)))
- b.  $\emptyset = x^w\epsilon$   $hn-s-q^w\acute{\epsilon}-sq^w\epsilon s-\epsilon?$   $x^w\epsilon$  Ernie...  
 DET 1SG.POSS-NOMs-son DET Ernie  
 It was my son, Ernie ...

Based on weak translation evidence, example (19) below may show a focused proper name in final position, but tellingly, it is introduced by a complementizer, and not a determiner. Assuming that Coeur d'Alene follows the Okanagan pattern for these cases (and arguably Kalispel as well), (19) may be analyzed as an identificational sentence.<sup>9</sup>

- (19)  $x^wi?$        $x^w\epsilon$   $\check{x}\epsilon min\check{c}$   $h\epsilon$        **$qelpy\epsilon$** .  
 DEM.PROX DET like COMP Black.Swan  
 Black Swan was the one liked.  
 Literally: That one who was liked is Black Swan.  
 (Coeur d'Alene, Reichard texts: Coyote Steals Son's Wife, 003a)

The status of the initial particle  $h\epsilon$  in (19) and (17b) is unclear. N. Mattina (2006, 102) lists it as an 'article', on par with the other three determiners listed in Doak (1997, 41), and cognate with Okanagan  $i?$ . If this is indeed the case, then data like

<sup>9</sup>Alternatively, (19) may be a cleft, equivalent to *It is **the one who was liked** that is Black Swan*, although the equivalent cleft in Okanagan is not possible.

(19) may in fact be analyzable as a specificational DP-DP structure.

### Moses-Columbian

Moses-Columbian exhibits relatively clear examples of DP-DP structures. Analyzing the data is complicated by the fact that just as in Kalispel, determiners are optional in Moses-Columbian (Willett (2003), N. Mattina (2006)). In (20), an overt determiner *?aní* introduces an NP forming a DP constituent which might be analyzed as standing in an equative relationship with an initial proximal demonstrative *?axá?*.<sup>10</sup>

- (20) a. *?axá?*        [*?aní* Mary 1        stx<sup>w</sup>ul-s *DP*].  
           DEM.PROX DET Mary GEN house-3SG.POSS  
           This is Mary's house.        (Moses-Columbian, N. Mattina (2002, 264))
- b. *?axá?*        wa [*?aní* Mary 1        stx<sup>w</sup>ul-s *DP*].  
           DEM.PROX ABS DET Mary GEN house-3SG.POSS  
           This is Mary's house. (Moses-Columbian, N. Mattina (2006, 111, ex. 35))

Willett (2003, 87) notes that since the particle *wa* optionally marks absolutive arguments, as in (20b)<sup>11</sup>, this implies that the demonstratives in these cases are intransitive predicates. If the demonstratives *are* predicates, the prediction based on the Okanagan pattern is that they should also be able to follow their DP arguments, especially given that while 'unmarked intransitive word order is VS' (Willett, 2003, 95), SV is also possible as a case of 'unmarked fronting' (p.105). (21) is such an example,<sup>12</sup> but I have not been able to find any data involving *?axá?* in final position to substantiate the claim that these are predicates, nor do Moses-Columbian demonstratives appear to function as complements to *?aní*, which might be pre-

<sup>10</sup>Willett (2003, 84) and N. Mattina (2006, 102) both analyze *?axá?*, as well as *?ací* and *?atú?* as determiners on par with *?aní*, rather than as demonstratives. It is unclear what the examples in (20) would mean, however, if both *?axá?* and *?aní* were determiners, and in any case, they should not be interpretable as complete propositions. As such, I analyze *?axá?* as a demonstrative, cognate with Okanagan proximal *axá?* (cf. N. Mattina (2006, 102)).

<sup>11</sup>The determiner *?aní* is also optional in these cases.

<sup>12</sup>'Grandfather' has already been introduced, but not mentioned in the immediately preceding context. 'Grandfather's hands' were mentioned 3 stanzas previous, however. These cases of unmarked fronting are different from left-dislocated 'and-fronting' constructions, for which an initial DP is separated from the rest of the sentence by *k<sup>w</sup>a?* 'and'.

dicted if demonstratives were predicative (cf. Kalispel 7a,b).

- (21)    ʔaná     s-pə-pásaʔ                    ʔac-ʔá....q-əlx.  
           DET[?]   NOM-RED-grandfather   CUST-sit(SG)-body  
           Grandfather was sitting down.  
           (Moses-Columbian, The Story of Crow's Daughter, Davis (1990, 40))

Clefts in Moses-Columbian may show evidence for being equative, though this is unclear. For the cases in (22) below, a residue clause is introduced by a complementizer *ʔuʔ*, which is not used as a determiner in Moses-Columbian (like in Okanagan, but unlike in Kalispel and Coeur d'Alene) and does not seem to occur in relativization contexts either (Willett, 2003, section 5.4).<sup>13</sup> Absolutive *wa*-marking in (22a,b) is interesting because it either marks the residue as an internal argument of the focused constituent, or else introduces a null NP which is co-referent with the focused absolutive (cf. Lyon (2011)).

- (22) a. sʔaʔcínəm ʔuʔ    wa   ʔawtáp-s                    tʔwít.  
           deer            COMP   ABS   follow-[TR]-3.ERG   boy  
           It was the deer that the boy followed.  
           (Moses-Columbian, Willett (2003, 109, ex.120))
- b. Mary ʔuʔ    wa   káʔ-xt-s                    t    yámǰʔaʔ John, lut   wa  
           Mary COMP   ABS   give-APPL-3.ERG   OBL   basket   John NEG   ABS  
           Isabel.  
           Isabel  
           It was Mary that John gave a basket to, not Isabel.  
           (Moses-Columbian, Willett (2003, 109, ex.122))
- c. John ʔuʔ    kʔ-čəm-ʔs-n.  
           John COMP   kʔ-suck-face-(dir)-1sg.erg  
           John is the one I kissed.  
           (Moses-Columbian, Ewa Czaykowska-Higgins, fieldnotes, 92.196)

If, as seems likely, the second constituent in (22) is a predicative CP rather than

<sup>13</sup>Willett (2003, 107-108) classifies these as 'quasi-clefts' (i.e. NPCs), where the initial NP functions as a predicate.



a DP, then following an analysis like Shank (2003) and Koch (2008a), the initial nominal should be a referential DP, i.e. these are true clefts. This seems like a plausible analysis for the data in (22), given that determiners are regularly null, given that ‘deer’ and ‘boy’ receive maximal interpretations despite the absence of any overt determiner, and given that there are other similar data involving focused NPs which are introduced by overt deictics (23):

- (23)    ʔací           smʔámm ʔuʔ     t     múx<sup>w</sup>t.  
           DEM.DIST woman   COMP OBL laugh  
           It was that woman who laughed.  
           (Moses-Columbian, Willett (2003, 109, ex.125))

Other types of Moses-Columbian focus structures have residues that are introduced by determiners (24a) or other deictics (24b).<sup>14</sup> As with the data involving complementizer-introduced residues (22), bare nominals are possible in initial position.

- (24) a. stx<sup>w</sup>úl ʔaní ʔi[n]-s-c-táw.  
           house DET 1SG.POSS-NOM-CUST-buy  
           It’s a house that I bought.  
           (Moses-Columbian, Willett (2003, 113, ex.147))
- b. smʔámm ʔací           təm-ncút.  
           woman   DEM.DIST cut-REFLEX.  
           The woman cut herself. (Moses-Columbian, Willett (2003, 113, ex.150))

While the non-maximal translation of ‘house’ in (24a) is consistent with an analysis of these cases as NPCs, assuming that Moses-Columbian determiners are similar to Okanagan *iʔ* in allowing non-maximal readings (cf. chapter 5), these could also be equative structures with null determiners preceding the initial nominal. The most straightforward analysis is to analyze these cases as NPCs, however.

As with Okanagan (cf. section 8.9), adjuncts in Moses-Columbian are clefted

<sup>14</sup>Willett (2003) analyzes these as true ‘clefts’. The difference between ‘clefts’ and ‘quasi-clefts’ for Willett is that the residue is introduced by a ‘subordinator’ in the latter, and by a determiner for the former. I footnote her use of the terminology since this particular division seems questionable to me.

using a special particle *ci*, rather than the complementizer *lu?* or a determiner *?anɪ*.<sup>15</sup> In (25a), a passive agent is being clefted, and in (25b), an instrumental adjunct is clefted.

- (25) a. t      John ci      cək-nt-m      Mary.  
           OBL John COMP hit-DIR-PASS Mary  
           It's John who hit Mary.  
           (Moses-Columbian, Ewa Czaykowska-Higgins, fieldnotes, 92.224)
- b. t      ń̩ń̩ḱ̩ḿ̩n ci      t̩́m-s.  
           OBL knife COMP cut-[DIR]-3SG.ERG  
           A knife is what he cut it with.  
           (Moses-Columbian, Ewa Czaykowska-Higgins, fieldnotes, 92.206)

As another point of interest, example (26) shows that null demonstrative foci are possible in identificational contexts (cf. section 8.5.3).

- (26) k<sup>w</sup>a? wa      sáwɬk<sup>w</sup>.  
           and ABS water  
           That is water.  
           (Moses-Columbian, The Story of Crow's Daughter, Davis (1990, 42)))

Finally, specificational word ordering is also found in identificational contexts in Moses-Columbian, just as with Okanagan, Kalispel, and Coeur d'Alene.

- (27) a. ?anɪ wa      kiʔána?      l      s-čq<sup>w</sup>-əncút-s      i:mli...  
           DET ABS teenage.girl GEN NOM-name-REFLEX-3SG.POSS Emily  
           The girl's name was Emily...  
           (Moses-Columbian, The Story of Crow's Daughter, Davis (1990, 2)))

<sup>15</sup>Although it is tempting to analyze Moses-Columbian *ci* as cognate with Okanagan *ki?*, Henry Davis (p.c.) indicates that this is probably not the case, since there is no palatalization of velars in Moses-Columbian.

b. ʔaní ttwít wa wítaʔ.

DET boy ABS wítaʔ.

The boy's was W'ítaʔ.

(Moses-Columbian, The Story of Crow's Daughter, Davis (1990, 2)))

### Summary

From this brief overview of Southern Interior Salish, Kalispel (Montana Salish) shows the strongest possible evidence for equatives (3e), repeated below as (28).

(28) ʔu smʔem ʔu sx<sup>w</sup>mimeyeʔm.

DET woman DET teacher

The woman is a teacher.

(Kalispel, Tachini Pete p.c. 2011)

Since cleft residues in Kalispel are routinely introduced by the determiner *ʔu(ʔ)*, they may be analyzable as DPs in Kalispel, though I was not able to find a clear example of a headed relative in residue position. The status of demonstratives is somewhat unclear in the language since (i) there is conflicting evidence that they may be predicative, and (ii) the demonstrative *iše* patterns radically different from Okanagan *ixíʔ* in not being able to follow a nominal predicate. The semantics of the determiner *ʔu(ʔ)* are unclear as well, but assuming that it is functionally equivalent to Okanagan *iʔ*, which seems likely given that they have more or less identical distributions, prospects for extending the equative analysis I have developed for Okanagan DP-DP structures and clefts to Kalispel seem very promising. The distribution of *ʔu(ʔ)* in identificational contexts patterns with the use of Okanagan *ʔə* in similar contexts, which raises the possibility that *ʔu(ʔ)* may have a limited function as a complementizer in Kalispel.

Coeur d'Alene, strikingly, does not show evidence for equatives. Rather, it follows the pattern exhibited by Thompson (Koch, 2008a, 2009): NPCs introduce residues with determiners, whereas cleft residues are introduced by complementizers. This is unexpected, given that Kalispel and Okanagan show clear evidence for equatives, but it is possible that this is simply due to a gap in the data. Coeur d'Alene identificational sentences utilize complementizers before proper names, similarly to Okanagan.

Moses-Columbian does not exhibit straightforward evidence for equative structures. First of all, it is unclear whether demonstratives may be predicates, or whether absolutive *wa* may help decide this issue. Secondly, it is often unclear what the categorial status of the clefted constituent is, given that determiners may be null. Since *lu?* is always a complementizer in Moses-Columbian, a subset of cleft residues may be analyzed unambiguously as CPs. Assuming that a CP residue requires a DP focus for Salish clefts, a bare nominal in focus position may be analyzed as a DP, following the pattern in Thompson. For other cases, where the residue is introduced by a determiner, I have not been able to find any unambiguous examples of determiner-headed DPs in focus position. There is therefore no reason at the moment to reject the null hypothesis that these are in fact NPCs.

In sum, Kalispel shows strong evidence for equative DP-DP structures and probably clefts as well, similarly to Okanagan, while Coeur d'Alene and Moses-Columbian do not.

**Table 9.4:** Evidence for Equative versus Predicational Analyses of Southern Interior Salish DP-DP Structures and Clefts

|                           | Equative | Predicational |
|---------------------------|----------|---------------|
| Okanagan                  | ✓        | *             |
| Kalispel (Montana Salish) | ✓        | *             |
| Coeur d'Alene             | *        | ✓             |
| Moses-Columbian           | *        | ✓             |

### 9.3.2 Implications for Northern Interior Salish

This section discusses data from the Northern Interior Salish languages Shuswap, Thompson and Lillooet. Clefts have been studied much more intensively in these languages than in the Southern Interior languages just discussed. I begin with a discussion of Shuswap data involving DP-DP structures and clefts. I then discuss in some detail Thompson data from Koch (2008a), and in particular, his analysis of clefts in the language. Although he does not adopt an equative analysis of clefts for Thompson (cf. also Shank (2003) for Northern Straits in section 9.3.3), his

arguments are still directly relevant to this dissertation. Finally, I discuss cleft data from Lillooet (Davis et al., 2004). I then summarize the results of this survey.

### Shuswap

Shuswap appears to have DP-DP structures; however, their grammatical status is unclear. According to Gardiner (1996), (29a) below is translatable as a demonstrative-associated DP, but not as a complete sentence.<sup>16,17</sup> However, Kuipers (1989) shows a clear case of a DP-DP structure where the second DP is introduced by the absent determiner *l* (29b). This difference may be attributable to a generational difference between speakers.

- (29) a. *yeyéy      ye    n'ce?sqéǵe?*  
           DEM.DIST DET horse  
           that horse  
           \*The horse is that. (Shuswap, Gardiner (1993, 181, ex. 61))
- b. *yǵi?            l            n-xk<sup>w</sup>ətk<sup>w</sup>tústn.*  
           DEM.DIST DET.ABS 1sg.poss-eyes  
           Those are my eyes. (Shuswap, Kuipers (1989, 48, ex. 33))

Lai (1998) shows that a proper name can be in the focus position of a cleft (30a), but she analyzes the proper names in these cases as predicates, since a proper name cannot be introduced by a determiner in this position, whereas proper names in argument positions are normally introduced by determiners (unlike the case for Okanagan). As such, (30a) is equivalent to an NPC for Lai (1998). Independent pronouns can also occur in this position (30b).

- (30) a. **John** *ǵə    wíkt-t-m-əs.*  
           John DET see-TR-PASS-3SG.CJCT  
           It is John that saw him/her. (Shuswap, (Lai, 1998, 311, ex. 20b))

<sup>16</sup>Data from Gardiner (1996) and Lai (1998) were originally given in a practical orthography, which I have standardized to an Americanist orthography for the sake of consistency with other resources such as Kuipers (1974) and Gardiner (1993). Additionally, Kuipers (1974, 1989) writes determiners as prefixes, rather than as separate words. I write them as separate words for expository purposes.

<sup>17</sup>Neither should (29a) be interpretable as 'That is the horse', but this is less clear.

b. **nwiʔs**    *yiʔ*                      *ʔə*    *ʃ<sup>w</sup>ənt*.

3.EMPH   DEM.PRES   DET   fast

It's that one that is fast.                      (Shuswap, (Gardiner, 1996, 181, ex. 59))

I was nevertheless able to find some clear-cut cases of clefts involving focused independent pronoun DPs (31), which may be analyzed as equative.<sup>18</sup> In (31a), the absent determiner *l* introduces a headless relative clause in final position, and in (31b), the default determiner *ʔ* introduces a headless relative clause.

(31) a. **ʔə**    **n-čəčwəʔ**                      *l*                      *wx-stə-x*.

DET   1SG.POSS-EMPH   DET.ABS   mention-TR-2SG.ERG

I am the one you mentioned.                      (Shuswap, (Kuipers, 1974, 117, line 39))

b. **ʔə**    **n-čəčwəʔ**                      *ʔə*    *wíkt-t-m-əs*.

DET   1SG.POSS-EMPH   DET   see-TR-PASS-3SG.CJCT

It is I that saw him.                      (Shuswap, Lai (1998, 312, f.n. 14))

Gardiner (1993) contains similar examples, with a residue introduced by the reduced demonstrative *yiʔ* (32) rather than the default *ʔ* determiner (31b).<sup>19,20</sup>

(32)    **ʔ**    **n-čəčwəʔ**                      *yiʔ*                      *ʔ*    *wí[w]k-t-sm-s*.

DET   1SG.POSS-EMPH   DEM.PRES   DET   see-RED-TR-1SG.OBJ-3SG.ERG

I'm the one that she saw.

<sup>18</sup>Shuswap independent pronouns are never introduced by determiners except for the 1st person singular in the Northern dialect (Kuipers, 1974), (cf. 31). Okanagan independent pronouns cannot be preceded by determiners, and their distribution in equative and predication structures is somewhat unclear, which is why I have abstracted away from similar data in Okanagan for this thesis.

<sup>19</sup>Kuipers (1974, 57) describes the demonstratives *yiʔ* 'present' and *luʔ* 'non-present' as 'general deictics'. "The former often has to remain untranslated... very often inserted in non-formal speech"

<sup>20</sup>There is a section on 'clefts' in Lai (1998, section 2.1), but these data resemble cases of unmarked fronting, rather than clefts, since there is no determiner or other particle preceding the residue (i):

(i)                      Scott    *ʃ<sup>w</sup>ə.ʃ<sup>w</sup>istót-ən*.  
                          Scott    like(RED)-1SG.SUBJ  
                          It is Scott that I like.

Note that in Lillooet, a residue introducing particle is also not obligatory (cf. Davis et al. (2004) and section 9.3.2 below), however in Lillooet, an overt copula *niʔ* unambiguously indicates a cleft structure.

It is unclear to me whether (31b) and (32) actually have substantively different structures or not. Given (i) that demonstratives can adjoin to DPs in Shuswap (29,30b), and (ii) that *yi?* is a reduced demonstrative (Gardiner, 1993, 181)<sup>21</sup>, it seems plausible that (31b) and (32) have the same structure, and that *yi?* only optionally introduces cleft residues in Shuswap (cf. 30), similarly to the case for Okanagan where optional *ixi?* does not procliticize to initial position. All examples analyzed as ‘clefts’ in (Gardiner, 1993) involve a reduced demonstrative introducing the residue clause (33), either *lu?* ‘non-present’ (33a) or *yi?* ‘present’ (33b,c) (Kuipers, 1974, 57).

- (33) a. **y** **John** *lu?*                      l            m-wik-t-s.  
           DET John    DEM.ABST    DET    PERF-see-TR-3SG.SUBJ  
           It’s John that he saw.                      (Shuswap, (Gardiner, 1993, 73, ex.4))
- b. **y** **Mary** *yi?*                      y            John l            m-cúm’-qs-n-s.  
           DET Mary    DEM.PRES    DET    John    DET    PERF-lick-nose-TR-3SG.SUBJ  
           It was Mary that John kissed.            (Shuswap, (Gardiner, 1993, 76, f.n.3))
- c. **Mary** *yi?*                      y            wik-t-m-əs  
           Mary    DEM.PRES    DET    see-TR-PASS-3SG.CJCT  
           Mary is the one that saw him.            (Shuswap, (Gardiner, 1993, 93, ex.71))

Importantly for the sake of comparison with Okanagan, Gardiner (1993, 78) notes the presence of an optional initial demonstrative (34b), non-reduced *yəyí?*. Note the change in translation between (34a) without an initial demonstrative, and (34b) with an initial demonstrative. This suggests that it is the demonstrative which is in focus in (34b), implying that headed residues may be possible in Shuswap, and thus that clefts are equative.<sup>22</sup>

<sup>21</sup>Gardiner (1996, 181) analyzes the visible distal particle *yi?* (and invisible *lu?*) as reduced demonstratives which have been ‘grammaticized as focus particles’. He glosses *yi?* as PART ‘particle’, but I gloss it as DEM ‘demonstrative’ in order to make my point.

<sup>22</sup>If this is the right analysis, then it shows that the reduced demonstrative *yi?* can move to the left periphery of a clausal CP, along with a determiner *y*, in Shuswap. Alternatively, if the DP *y sqélmx<sup>w</sup>* ‘the man’ is in focus position as a constituent with the initial demonstrative, then the reduced demonstrative *yi?* is directly equivalent to the clefting demonstrative *ixi?* in Okanagan for cases where it remains in-situ.

- (34) a.  $\gamma$  **sqélmx<sup>w</sup>**  $\gamma i?$   $\gamma$  wik-t-s.  
 DET man DEM.PRES DET see-TR-3SG.ERG  
 It's the man that she saw. (Shuswap, (Gardiner, 1993, 78, ex.14))
- b. **yəyí?**  $\gamma$  **sqélmx<sup>w</sup>**  $\gamma i?$   $\gamma$  wik-t-s.  
 DEM DET man DEM.PRES DET see-TR-3SG.ERG  
 That's the man that she saw. (Shuswap, (Gardiner, 1993, 78, ex.17))

For cases involving demonstrative-focus, Shuswap determiner  $\gamma$  alternates with the oblique-irrealis determiner  $\acute{t}k$ , as shown in (35). This is directly analogous to the alternation in Okanagan demonstrative-focus clefts between the determiner  $i?$  and the oblique marker  $t$  (cf. section 8.5.2).

- (35) a.  $y\acute{y}i?$  **yʔón**  $\acute{t}k$  **qlmúx<sup>w</sup>**  $l$  m-wíwk-c-m-s.  
 DEM DEM OBL.IRR man DET.ABST PERF-see-DIR[?]-2SG.ACC-3SG.ERG  
 This is the man who saw me. (Shuswap, Kuipers (1974, 83))
- b.  $y\acute{y}i?$  **yʔón**  $\acute{t}k$  **qlmúx<sup>w</sup>**  $l$  m-tʔóʔy-n.  
 DEM DEM OBL.IRR man DET.ABST PERF-meet-DIR[?]-1SG.ERG  
 This is the man I met. (Shuswap, Kuipers (1974, 83))

Notice that both examples in (35) begin with a sequence of two demonstratives, and both are translated as having focus on the second, proximal demonstrative. The first demonstrative is presumably a deictically weak clefting demonstrative, and its initial position is consistent with an argument whereby it has undergone proclisis to initial position, while forming an underlying constituent with the nominal introduced by  $\acute{t}k$ , exactly as in Okanagan.<sup>23</sup>

One major problem with analyzing Shuswap clefting demonstratives as discontinuous constituents with a residue clause is that Shuswap, as a Northern Interior language, is a primarily encliticizing language, unlike Southern Interior Salish languages which are procliticizing languages. Shuswap has both reduced demonstra-

<sup>23</sup>Henry Davis (p.c. 2013) points out that if the initial demonstrative were underlyingly a constituent with the residue in (35a,b), it should match the absent deictic features of the residue-internal determiner. I am not sure if this should necessarily be the case, however, since in Thompson (46d) below, for example, a distal demonstrative is arguably being equated to a referent which is introduced by the remote determiner  $\acute{t}$ , and in Okanagan, a deictically weak occurrence of  $ixí?$ , as in a clefting context, can easily refer to something spatially and/or temporally remote.



tives (e.g. *yiʔ*, similar to Thompson clefting *xeʔ*), and full variants (e.g. *yəyiʔ*) which carry stress. Shuswap reduced demonstratives do not introduce clefts in the data that I have found, which makes sense if they are enclitics. It is possible that Shuswap clefting demonstrative *yəyiʔ* and Okanagan clefting demonstrative *ixiʔ* are treated as full words by the phonology, rather than clitics, and that the process I have labelled ‘demonstrative proclisis’ for Okanagan might more accurately be called ‘demonstrative floating’.

Also similar to Okanagan, the pattern involving the the oblique-irrealis determiner *ík* (sometimes *tk* (Kuipers, 1974, 57)) surfaces in non-cleft environments (36), which supports an argument whereby the demonstrative forms a constituent with the oblique-marked nominal.

- (36) *yʔiʔ tk qlmúx<sup>w</sup> ʔex ɣ sʰníq<sup>w</sup>-st-səs ɣ knkéknm.*  
 DEM OBL.IRR man IMPF DET fight-CAUS-3SG.ERG DET  
 bear

This man fought with a bear. (Shuswap, Kuipers (1989, 36, ex. 60))

In the data below, an initial demonstrative is in focus, followed by a clefting demonstrative *yiʔ* which is a constituent with the residue, similar to Okanagan data where a non-focused demonstrative does not undergo proclisis. (37b) is interesting since it contains a sequence of three demonstratives. The first demonstrative is in focus, the second is a clefting demonstrative and introduces the residue, while the third refers to the residue-internal subject. (37c) shows that Shuswap cleft residues can be introduced by a future particle *meʔ*, equivalent to Okanagan future *mi*, and Kalispel *m*. I have added an ‘=’ below to indicate the position of the proposed equative head.

- (37) a. *yəyiʔ = yiʔ ɣ wik-t-m.*  
 DEM DEM DET see-TR-PASS  
 That’s the one that was seen. (Shuswap, (Gardiner, 1993, 89, ex.51))  
 b. *yəyiʔ = yiʔ yəyéy ɣ wik-t-s.*  
 DEM DEM DEM DET see-TR-3SG.SUBJ  
 That’s the one that this one saw. (Shuswap, (Gardiner, 1993, 89, ex.51))

This is the one that is going to paint the house.  
(Shuswap, Kroeber (1999, 390))

This essentially precludes an equative analysis of Thompson clefts, though Koch has good reasons for rejecting the equative analysis, based on the syntactic and semantic properties of cleft residues in Thompson. His four syntactic arguments (2009, p.3) against analyzing cleft residues as DPs are as follows:

- (39) a. cleft structures do not bear transitive marking.
- b. clefts have rigid post-predicative word order.
- c. cleft residues are not introduced by the full range of determiners.
- d. cleft residues do not have overt NP heads.

Among these arguments, (39c) and (39d) are the strongest, and the ones I will discuss here.

Concerning the third argument (39c), Thompson cleft residues are introduced by the specific determiner *e* (40b) or the irrealis determiner *k*, and never by the remote determiner *ʔ* (40a) or by the oblique marker *t*. The determiners *e* and *k* are also used as complementizers in Thompson. The oblique marker *t* obligatorily introduces relative clauses in Thompson (Kroeber, 1997; Koch, 2006), and so its absence in (40b) is unexpected.

- (40) a. \**ʔe e Moníque [ʔ wík-t-ne]*.  
           CLEFT DET Monique DET see-TR-1SG.ERG  
           It was Monique that I saw. (Thompson, Koch (2009, ex.13a))
- b. *ʔe e Moníque [e wík-t-ne]*.  
           CLEFT DET Monique DET see-TR-1SG.ERG  
           It was Monique that I saw. (Thompson, Koch (2009, ex.13a))

As Koch (2008a, 226) states, the “absence of *ʔ* here is especially telling, since it indicates that the determiner introducing residue clauses does not begin as an argument DP of the subordinated verb, as relative pronouns (*t*)-*ʔ* do in relative clauses.” In other words, cleft residues are not structurally equivalent to relative clauses in Thompson.

(41a) below shows an oblique marker-determiner sequence *t-ʔ* introducing a relative clause, while (41b) and (41c) together show that no sequence of oblique marker plus determiner can introduce an NPC residue or an introduced cleft residue

clause in Thompson.

(41) a. **Relative Clause**

cw-úm      kn              xeʔ    te      kápi    t-ʔ  
 make-MID 1SG.ABS DEM OBL coffee OBL-COMP  
 s-téw-cn-me-s                              ʔ      nsmʔém  
 NOM-buy-mouth-MID-3SG.POSS DET 1SG.POSS-wife  
 ʔ      spiʔxáwt.  
 DET day

I made the coffee that my wife bought yesterday.

(Thompson, Koch (2008a, 211, ex.8))

b. **NPC**

[kápi<sub>FOC</sub>] xeʔ    (\*t)      e      n-s-cw-úm                              ʔ  
 coffee      DEM (\*OBL) DET 1SG.POSS-NOM-make-MID COMP  
 qíʔ-t      wn              ʔ      snwénwen.  
 awake-IM 1SG.CJCT DET morning

I made [coffee<sub>FOC</sub>] when I got up this morning.

(Thompson, Koch (2008a, 211, ex.9))

c. **Cleft clauses are not introduced by a determiner from inside the residue clause** [give the grammatical case (without oblique marking)]

\*ʔe      ʔ      Ross    [t-e<sub>i</sub>    (/t-k              /t-ʔ)              [pínt-e-t-mus t<sub>i</sub>]].  
 CLEFT DET Ross OBL /OBL-IRL /OBL-DET paint-DRV-TR-SUBJ.EXTR  
 It's Ross who painted it.                              (Thompson, Koch (2008a, 225, ex.36))

Relating to this point, Koch (2008a) shows that while headless locative relative clause DPs are introduced by a preposition and determiner which have moved from a position following the relative clause predicate (42a), residues in focus structures are generally not (42b):<sup>25</sup>

(42) a. **Headless locative relative clauses are introduced by the clause-internal preposition**

<sup>25</sup>The same is true for Okanagan, though Okanagan uses an entirely separate structure for clefted prepositional phrases: adjunct clefts (cf. section 8.9).

cu-t-és                    [n-t<sub>i</sub>    x<sup>w</sup>úy' un                    míceʔq t<sub>i</sub> DP].

fix-TR-3SG.ERG in-DET<sub>i</sub> FUT 1SG.CJCT sit

She fixed what I was going to sit in. (Thompson, Kroeber (1997, 397))

**b. Locative residues in focus structures lack an initial preposition from inside the residue clause**

Which way did she sleep?

[ne        sʰíckn'-s <sub>FOC</sub>]    ek<sup>w</sup>u    ʔuʔ    [(<sup>\*</sup>n) k    ʔóy-t        us DP].

in-DET back-3SG.POSS EVID EMPH (<sup>\*</sup>in) IRL sleep-IM 3.CJCT

She slept [on her back <sub>FOC</sub>]. (Thompson, Koch (2008a, 226, ex.37b))

Moving on to the fourth argument (39d), Koch (2008a, 232) shows crucially that Thompson cleft residues cannot contain an overt NP head (cf. (Davis et al., 2004) for Lillooet and Northern Straits Salish):

**(43) Thompson Cleft residue clauses lack an overt nominal head**

\*'ce    xeʔ    e        heléw' [e    spzupzúʔ t-e<sub>i</sub>                    wʔéx

CLEFT DEM DET eagle DET bird                    OBL-DET PROG

n-x<sup>w</sup>ál-ix        t<sub>i</sub>].

LOC-fly-AUT

The birds that are flying are the eagles. (Thompson, Koch (2008a, 232))

Taken together, the points given above as (39c,d) provide strong syntactic evidence that the residue of a Thompson cleft is not a DP, but is instead a CP.

Koch's analysis of the cleft clause as a predicative CP leads to a semantic analysis of the clefting predicate *'ce* as in (44a) with the implicature in (44b) (Koch (2008a, 237), cf. Shank (2003) for Northern Straits):

(44) a.  $[[\text{'ce}]] = \lambda x_e \lambda P_{\langle e,t \rangle} . P(x)$

b. Implicature: there exists some *x* such that  $P(x) = 1$

The formula in (44) means that *'ce* is essentially a predication copula. This analysis is supported by data showing that Thompson clefts lack exhaustivity effects (45a) and any presupposition of existence (45b)(cf. Percus (1997) for English, and related data for Okanagan in section 2.4.2).

- (45) a. Context: Peter went fishing, did anyone else go fishing?

če ek<sup>w</sup>u ?eł ʔu? xe? e John.

CLEFT EVID and even DEM DET John

John did too. (??It was also John that went fishing.)

(Thompson, Koch (2008a, 215, ex.18))

- b. Context: Addressee is being handed a bow and arrow, with no prior mention that something is to be used for hunting.

če xé? e q<sup>w</sup>ez-t-és e x qáqý'-m.

CLEFT DEM DET use-TR-3SG.ERG DET PROG shoot(DIM)-MID

This here is to use for hunting.

(Thompson, Koch (2008a, 220, ex.30))

Thompson and Thompson (1992, 216, line 189))

He explains that by analyzing the second semantic argument of *če* (i.e. the residue) as a predicate, the absence of any exhaustivity entailment in Thompson clefts follows (45a), since as a predicate, the residue may be true of more than one individual. This analysis also explains why Thompson clefts can be used in non-presuppositional contexts (45b), since predicates are inherently non-maximal. The implicature in (44b) arises from an assumption that the set is non-empty.

This analysis correctly derives differences between English clefts, which have exhaustivity entailments and existential presuppositions, from clefts in Thompson, which do not. For theories of English clefts such as Percus (1997) and Hedberg (2000), the residue clause is the restriction of a concealed definite description, and is therefore a referential type *e* (cf. discussion of these theories in section 2.4). The exhaustivity entailment and existential presupposition of English clefts can therefore be linked directly with the definite determiner *the*. In contrast, Koch (2008a) analyzes residue-introducing determiners in Thompson clefts as complementizers which do not saturate the predicative CP, and so the semantics of clefts in Thompson are necessarily divorced from the semantics of the determiners.

It is important to note however that Salish determiners are well known for lacking exhaustivity entailments and existential presuppositions, as shown for Lillooet (Matthewson, 1998), Squamish (Gillon, 2006), and Okanagan (cf. chapter 5). Following Shank (2003, 225), Koch (2008a, 238) actually considers the possibility

that the residue-introducing determiner is *not* semantically vacuous, but instead introduces a choice function (Reinhart, 1997; Matthewson, 1999) which selects an entity from the set denoted by the relative clause, essentially a version of the equative analysis I adopt in chapters 7 and 8. As an existentially quantified indefinite, the absence of any exhaustivity entailment or existential presupposition follows, and the semantics of clefts in Thompson could in principle be linked to the semantics of determiners (Percus, 1997; Hedberg, 2000).

Though he ultimately does not adopt an equative analysis, Koch (2008a, 231-2) shows data which are directly analogous to simple DP-DP structures in Okanagan, except that they are introduced by either the clefting predicate *cé* (46b-c) or *cuk<sup>w</sup> ʔu?* ‘only’ (46a). With regards to data of this type, Kroeber (1999, 370) states that the “predicative particles [e.g. *niʔ*] can be regarded as a sort of identificational copula, marking the nominal expression that immediately follows it as identical in reference to the nominal expression that is the subject of the whole construction (which may be a null pronominal).”

- (46) a. *cuk<sup>w</sup> ʔu?* ʔ Alice e n-snúk<sup>w</sup>eʔ.  
 only just DET Alice DET 1SG.POSS-friend.  
 Only Alice is my friend.  
 (Thompson, Koch (2008a, 232, ex.45a), Kroeber (1997, 389))
- b. *cé* n xeʔ [k eʔ-snúk<sup>w</sup>eʔ<sub>DP</sub>] [ʔ Kriʂ<sub>DP</sub>]?  
 CLEFT YNQ DEM IRL 2SG.POSS-friend DET Chris  
 Is Chris your friend? (Thompson, Koch (2008a, 232, ex.45b))
- c. Heʔáy, *cé* xeʔ [e éplʂ<sub>DP</sub>].  
 yes CLEFT DEM DET apple  
 Yes, that’s an apple. (Thompson, Koch (2008a, 232, ex.45c))
- d. *cé* xeʔ [ʔ n-sqáczeʔ, <sub>DP</sub>] ʔeʔ *cé* xeʔ [ʔ  
 CLEFT DEM DET 1SG.POSS-father and CLEFT DEM DET  
 n-sínciʔ<sub>DP</sub>].  
 1SG.POSS-brother  
 This is my father, and this is my brother.  
 (Thompson, Koch (2008a, 232, ex.45d))

These data yield several generalizations, and raise several important questions, each of which I will discuss in turn:

- (47) a. Thompson demonstrative *xeʔ* is plausibly analyzable as a focused DP (46c,d), analogous to Okanagan *ixíʔ*.
- b. Since a *ʔ* determiner, which is not used as a complementizer in Thompson, can introduce an NP in what appears to be a DP-DP structure (cf. 46b,d), how is it possible to reconcile the denotation of *ʔe* in (44) with the use of *ʔe* in these contexts?
- c. The Thompson determiner *ʔ* has the same distribution as the Okanagan oblique marker *t* in focus structural contexts: it can precede an NP (46b,d) but not a clausal residue (cf. 40a). Both Thompson (*t*)-*ʔ* and Okanagan *t* may occur before headed relative clauses in non-cleft contexts (cf. Thompson 41a).

Regarding (47a), Koch (2008a, 273) questions whether the unstressed demonstrative *xeʔ* can be a focus. Compare the identificational direct predication with a stressed referential demonstrative in (48a) below with the identificational DP-DP structure with an unstressed demonstrative enclitic (48b cf. 46c) and the identificational DP-DP structure with a stressed demonstrative (48c). Neither the syntactic placement of a demonstrative, nor whether it is stressed or not, appears to affect whether or not the demonstrative can be referential, and the translations of (48b) and (48c) are at least consistent with an interpretation where both demonstratives are in focus. As a step towards clarifying this issue, it might be useful to test whether (48b) and (48c) both give rise to an exhaustivity implicature.

- (48) a. [nqíʔcetn *FOC*] xeʔe.  
           key                  DEM  
           That's a [key *FOC*]. (Thompson, Koch (2008a, 45, ex.9) )
- b. Heʔáy, ʔé xeʔ [e éplʂ *DP*].  
      yes CLEFT DEM DET apple  
      Yes, that's an apple. (Thompson, Koch (2008a, 232, ex.45c))



c. *ʕe n xeʔe k eʔntíytn.*

CLEFT YNQ DEM DET.IRL teapot

Is that your teapot?

(Thompson, Kroeber (1999, 371))

Two alternative analyses for data such as (48b) are as follows: (i) there is either a null focus; or (ii) the bracketed DPs are in focus and there is a null residue, i.e. these are truncated clefts. As truncated clefts, it is unclear what the elided residue clause in (48b) could denote: one possibility is an empty predicate whose set is determined by the context; a second possibility, assuming that these are equatives, is that there is a null pronominal in residue position (Kroeber, 1999, 370).

This brings us to a discussion of (47b). If the remote determiner *ʔ* in (46b,d) is indicative of a DP structure, then these examples may only be analyzed as equatives, and it follows that the copula *ʕe* must be lexically ambiguous between an equative type  $\langle e, \langle e, t \rangle \rangle$  and a predicational type  $\langle e, \langle \langle e, t \rangle, t \rangle \rangle$ , as implied by Kroeber (1999, ch.7).

Concerning the absence of Thompson remote determiner *ʔ* before a clausal residue (47c), I have claimed that when Okanagan *t* occurs in clefts, it introduces a necessarily overt head NP of a relative clause (cf. section 8.5.2). I suggest that Thompson *ʔ* does not introduce a clausal residue because like Okanagan *t*, it selects for only overt NPs in these contexts. I have also argued that pre-nominal *t* in Okanagan equatives must be licensed by a demonstrative *ixíʔ* (cf. section 8.5.2), and it is notable that all of the data in which *ʕe* and *ʔ* co-occur in (46) involve a demonstrative *xeʔ*. While this could just be a coincidental correspondence, it is worth noting. Assuming that Thompson DP-DP structures share similarities with those in Okanagan, the prediction is that controlling for a non-human referent, (46d) should be possible with focus on the demonstrative, and a relative clause modifying a head introduced by *ʔ*.

Concerning the absence of the Thompson oblique marker *t* before a clausal residue (47c), Koch (2006, 133) analyzes relative clause-introducing *t* as adjoined to CP, as the head of some higher projection ‘XP’. In headless relatives, the oblique marker is obligatorily absent (cf. Koch (2008a, 45, ex.9)), possibly due to the fact that this particular projection is absent from headless varieties for some reason. Note that the presence or absence of XP does not affect clause-internal movement

to the left-periphery of CP. The absence of *t* before cleft residues could be due to the fact that like headless relative clauses, this particular projection is absent.

While it is the case that positing selectional restrictions for remote determiner *t* in cleft contexts, and positing that the oblique-marker containing XP projection is absent for cleft residue clauses, together plausibly explains the absence of both of these particles in cleft contexts, this story admittedly does not explain why an overt NP head cannot occur within a residue clause in Thompson. It is therefore most straightforward to acknowledge that while Thompson has DP-DP structures that are plausibly equative, clefts cannot be equative (cf. Coeur d'Alene and Moses-Columbian), and that there is a semantic ambiguity in the type of the copula *ʔe*.

### Lillooet

The closest equivalents to DP-DP structures in Lillooet are preceded by the clefting predicate *niłh* (49). The first constituent (the ‘focus’) is commonly a demonstrative, while the second constituent (the ‘residue’) can be either a NP (49a) or a DP (49b), though not all speakers allow DPs in this position. Henry Davis (p.c.) mentions that the determiner which introduces the second constituent is optional except in cases where a proper name is in focus (49c).

- (49) a. *nił cʔa ʔlaʔ.*  
           COP DEM basket  
           This is a basket. (Lillooet, Davis (2010c, ch. 6 ex.48))
- b. *ʔnił cʔa ta ʔláʔ-a.*  
           COP DEM DET basket-EXIS  
           This is a basket. (Lillooet, Davis (2010c, ch. 6 ex.48'))
- c. *nił s-Cáqʷəmłáʔ ti skʷácic-s-a ti kúkʷpiʔ-a.*  
           COP NOM-Cáqʷəmłáʔ DET name-3SG.POSS-DET DET chief-EXIS  
           Cáqʷəmłáʔ is the chief's name. (Lillooet, Jan van Eijk, p.c.)

Similar to the case of Kalispel *iše* (cf. section 9.3.1), a Lillooet demonstrative cannot follow an NP or DP predicate in residue position (50a,b) (or alternatively, demonstratives cannot be residues). Similar to Okanagan DP-DP structures, a directly referential expression cannot follow a determiner-headed DP in the context

of a the copula *nił* (50c).<sup>26</sup>

- (50) a. \*nił    člá?    c?a.  
           COP basket DEM  
           This is a basket. (Lillooet, Jan van Eijk, p.c.)
- b. \*nił    ta    člá?-a    c?a.  
           COP DET basket-EXIS DEM  
           This is a basket. (Lillooet, Jan van Eijk, p.c.)
- c. \*nił    ti    sk<sup>w</sup>ácic-s-a    ti    kúk<sup>w</sup>pi?-a    s-Cáq<sup>w</sup>əmła?  
           COP DET name-3SG.POSS-EXIS DET chief-DET NOM-Cáq<sup>w</sup>əmła?  
           The chief's name is Cáq<sup>w</sup>əmła?. (Lillooet, Jan van Eijk, p.c.)

In identificational contexts, auxiliary *wa?* introduces a final NP (51a,b), similarly to Okanagan identificational where the complementizer *ł* introduces a proper or common noun NP. In Lillooet, however, *wa?* is not optional in identificational contexts. Thus, (51c) cannot be used when teaching someone the name 'coffee'.<sup>27</sup> Okanagan and Lillooet thus differ, in the sense that the *ł* complementizer is not required for an identificational reading in Okanagan.

- (51) a. nił    ti?    wa?    Təłtłáyna.  
           COP DEM AUX Təłtłáyna  
           That was (who is called) Təłtłáyna.  
           (Lillooet, Davis (2010c, ch. 6 ex.55))
- b. nił    c?a    wa?    kápi.  
           COP DEM AUX coffee  
           This is (what is called) coffee. (Lillooet, Davis (2010c, ch. 6 ex.53))

<sup>26</sup>The assumption is that (50c) is not felicitous in contexts for which 'predicate topicalization' is possible in Okanagan. *nił* then always requires contrastive focus on the DP in focus position.

<sup>27</sup>With regards to the observation that auxiliary *wa?* normally indicates that a predicate is a temporary property of an individual, Davis (2010c, ch.6, 12) notes that "traditional ucwalmčwts names are in some sense temporary possessions of the people who bear them: they are passed on from generation to generation, like heirlooms."

- c. *nił cʔa kápi.*  
 COP DEM coffee  
 This is coffee (here). (Lillooet, Davis (2010c, ch. 6 ex.52))

Proper names, assertion-of-existence DPs, and headless relative clause DPs may all occur in focus position as well.

- (52) a. *nił s-Spike ti waʔ kúk<sup>w</sup>piʔ.*  
 COP NOM-Spike DET AUX chief  
 Spike is the chief. (Lillooet, Henry Davis, p.c. 2013)
- b. *nił ti kúk<sup>w</sup>piʔ-a waʔ s-Cáq<sup>w</sup>əmłtaʔ.*  
 COP DET chief-EXIS AUX NOM-Cáq<sup>w</sup>əmłtaʔ  
 It's the chief who is called Cáq<sup>w</sup>əmłtaʔ (not someone else.)  
 (Lillooet, Henry Davis, p.c. 2013)
- c. *nił ta s-ʔaləlnaʔúl-a waʔ s-K<sup>w</sup>ímcxən.*  
 COP DET NOM-youngest-EXIS AUX NOM-K<sup>w</sup>ímcxən  
 It's the youngest who is called K<sup>w</sup>ímcxən (not the eldest).  
 (Lillooet, Henry Davis, p.c. 2013)

Davis et al. (2004) show that NPCs and introduced clefts in Lillooet (and Northern Straits) lack any exhaustivity entailment or existential presupposition, similarly to Thompson and Okanagan. As such, I will not repeat their semantic arguments or associated data here, but will instead focus on morpho-syntactic properties of Lillooet clefts.

Davis et al. (2004, 102) find that “the basic difference between NPCs and clefts is that the residue in an NPC is a headed relative clause, whose head may be phonologically null, whereas in a cleft the residue is a bare CP.” This notably contrasts with Thompson NPCs, which cannot have overt heads Koch (2008a, 233).

Clear examples of Lillooet clefts are introduced by a clefting predicate *nił*, followed by a DP in focus position, as shown in (53a). Like data involving an NP or DP in residue position (cf. 49), a determiner is only required before a clausal residue if the focused DP is a proper name (compare 53a and 53b).

(53) a. nił [š-John<sub>DP</sub>] ta k<sup>w</sup>an-talí-ha ta káh-š-a  
 COP NOM-John DET take-NST-EXIS DET car-3.POSS-EXIS  
 š-Mary.  
 NOM-Mary  
 It's **John** that took Mary's car. (Lillooet, Henry Davis, p.c.)

b. nił ti k<sup>w</sup>úk<sup>w</sup>pi?-a wa? k<sup>w</sup>əzús-əm.  
 COP DET chief-EXIS AUX work-MID  
 It's the chief who is working. (Lillooet, Jan van Eijk, p.c.)

Concerning cleft residues, Davis et al. (2004, 104, fn6) note that Lillooet introduced cleft residues do not permit overt NP heads unless the head *follows* the clausal portion of the residue. Thus, compare (54a,b) with (54c).

(54) a. nił ʔi qəłmáməñ-a šməłmúłáč [nəł  
 CLEFT DET.PL old.person-DET woman(PL) DET.PL  
 q<sup>w</sup>alq<sup>w</sup>əlólť-š-an-a.]  
 speak-CAUS-1SG.ERG-DET  
 It was the old women that I spoke to.  
 (Lillooet, Davis et al. (2004, 103, ex.8))

b. \*nił ʔi qəłmáməñ-a šməłmúłáč [nəł šx<sup>w</sup>ápməx-a  
 CLEFT DET.PL old.person-DET woman(PL) DET.PL Shuswap-DET  
 q<sup>w</sup>alq<sup>w</sup>əlólť-š-an-a.]  
 speak-CAUS-1SG.ERG  
 It was the old women who were the Shuswaps that I spoke to.  
 (Lillooet, Davis et al. (2004, 104, ex.10))

c. nił ʔi qəłmáməñ-a šməłmúłáč [nəł  
 CLEFT DET.PL old.person-DET woman(PL) DET.PL  
 q<sup>w</sup>alq<sup>w</sup>əlólť-š-an-a šx<sup>w</sup>ápməx.]  
 speak-CAUS-1SG.ERG-DET Shuswap  
 It was the old women who were the Shuswaps that I spoke to.  
 (Lillooet, Davis et al. (2004, 104, fn6))

While the bare CP analysis of Lillooet cleft residues is supported by data like (53-54a,b), it is seemingly refuted by data like (54c).

The headed relative in brackets in (54a) is termed a *postposed* relative clause (i.e DET [NP CLAUSE]) in Davis (2010a, 4), whereas the headed relative in (54b) is termed a *prenominal* relative clause (i.e DET [CLAUSE NP]). The main thesis of Davis (2010a) argues that all types of relative clauses in Lillooet are derived from a common prenominal core. Specifically, “Postposed relatives must be derived from prenominal relatives via extraposition of a residue clause [a TP] containing the trace of the relativized DP” (p.36, cf. derivation on page 24-25). It is possible that extraposition is banned in Lillooet cleft residues, though not in normal relativization contexts, because clefts do not provide a necessary adjunction site for the extraposed clause.

Although Okanagan clefts are introduced with demonstratives, and Lillooet clefts with clefting predicate *nił*, it is worthwhile to note that in Lillooet clefts involving independent pronouns, the clefting predicate *nił* is only optionally spelled out, as in (55a,b) (Thoma, 2007).<sup>28</sup> This is reminiscent of the fact that Okanagan *ixiʔ* is optionally present in equatives. Before an assertion-of-existence DP however, *nił* is obligatory (55c).

- (55) a. *nił snúwa ti nukʷ-ʔan-án-a.*  
 COP 2SG.INDEP DET help-DIR-1SG.ERG-EXIS  
 It is **you** who I helped. (Lillooet, Thoma (2007, ex.6a))
- b. (*nił*) *snił ti ʔačʰən-táli-ha kʷ s-John.*  
 COP 3SG.INDEP DET see-DIR-NTOP-DET DET NOM-John  
**She** saw John. (Lit. The one who saw John is she.)  
 (Lillooet, Thoma (2007, ex.7a))
- c. *\*(nił) ti púʔyaxʷ-a ti ʰák-a kátiʔ.*  
 \*(COP) DET mouse-EXIS DET go-EXIS DEIC  
 The mouse is going along. (Lillooet, Thoma (2007, ex.7c))

Lillooet clearly allows DPs in residue position for DP-DP structures, and overtly

<sup>28</sup>Henry Davis (p.c., 2013) has informed me that clefted proper names also regularly occur without an introductory *nił*.

headed residues in clefts, with restrictions. An equative analysis of these structures seems possible for Lillooet, though given that assertion-of-existence DPs in Lillooet do not permit individual concept readings (Demirdache, 1996; Matthewson, 1998), unlike Okanagan *i?*, the prediction is that Lillooet clefts should not display any semantic asymmetry. Then again, Lillooet assertion-of-existence DPs are used in contexts for which generics are used in English (Lisa Matthewson, p.c.), and so under an analysis of generic interpretations of Salish DPs as involving maximal intensional pluralities (Chierchia, 1998), it is possible that there is some other mechanism in Lillooet which blocks intensional readings in contextually restricted or non-maximal contexts. An intensionally-based asymmetric account of DP-DP structures in Lillooet, accompanied by focus-alignment constraints, could derive the fact that there are word order restrictions in Lillooet DP-DP structures, (49,50), just as in Okanagan.

As far as explaining the alternation between DP versus NP residues (e.g. 49a,b), Davis (2010c, ch.6, 10) seems to indicate that there is no semantic difference between examples like (49a) and (49b), and that it may be simply a strong preference for speakers to drop the determiner in this environment. Hence, (49a) may be analyzable as an equative, just as (49b). If not, then Lillooet *nił* may be semantically ambiguous between a predication and equative copula, similar to the case of Thompson *če*.<sup>29</sup>

## Summary

Shuswap is much more similar to Okanagan in terms of its DP-DP structures and clefts than any other Salish language, even more so than any of the Southern Interior languages. Although I have not been able to locate a clearly equative DP-DP structure for Shuswap, consisting of two simple determiner headed-DPs with NP complements, given the morphosyntactic parallels between Okanagan and Shuswap, it would be surprising if this were not possible. Since cleft residues are introduced by determiners in Shuswap, and there is some data to indicate that these might possibly be headed residues, I suggest that Shuswap DP-DP structures and clefts may be analyzed as equatives, similarly to Okanagan. Shuswap requires

---

<sup>29</sup>Henry Davis (p.c.) notes that the Lillooet imperfective auxiliary *wa?* is gradually losing its aspectual force and assuming the role of a copula.

further work in terms of ascertaining the level of predicate-argument word order flexibility, and it is also unclear what the semantics of Shuswap determiners are (though cf. Gardiner (1996) for a preliminary analysis), and whether or not direct predications may be pragmatically equivalent to DP-DP structures in some instances.

Thompson appears to be quite strict in terms of disallowing headed residue clauses in clefts (Koch, 2008a, 2009), and given the absence of the oblique marker *t* and remote determiner *ɬ* before cleft residue clauses, there is good evidence that Thompson residues are bare CPs. Nevertheless, Thompson also exhibits DP-DP structures, introduced by the copula *če*. Through the information structural and syntactic status of these examples is unclear, there is reasonably good evidence that these might be analyzed as equatives. If so, then *če* may be semantically ambiguous between an equative and a predication copula.

Lillooet is similar to Thompson in the sense that there is evidence that the copula *niɬ* is semantically ambiguous, however for Lillooet, it may be the DP-DP structures which are ambiguously predication, rather than the clefts, since it is unclear whether determiners are acceptable in identificational sentence residues. Assuming that data showing that cleft residues may be headed is robust, then for all intensive purposes, they may be analyzed as equatives.

**Table 9.5:** Evidence for Equative versus Predicational Analyses of Northern Interior Salish DP-DP Structures and Clefts

|          | Equative | Predicational |
|----------|----------|---------------|
| Shuswap  | ✓        | *             |
| Thompson | (✓)      | ✓             |
| Lillooet | ✓        | (✓)           |

### 9.3.3 Implications for Other Salish Languages

This section discusses data from two other Salish languages: Northern Straits, a Central Salish language, and Bella Coola, which forms its own sub-branch of the Salish family. Ideally, this survey should include data from other Central Salish



languages, the Tsamosan branch, and Tillamook, however for reasons of space, this endeavor must wait. I begin with a discussion of Shank (2003) who develops an analysis of the copula *nił* in Northern Straits Salish, before embarking on a more data-centered discussion of Bella Coola.

### Northern Straits

Shank (2003) develops a semantic analysis of the copula *nił* in Northern Straits Salish. His analysis treats the copula as of type  $\langle\langle e, t \rangle, \langle e, t \rangle\rangle$ , essentially a predicate modifier. Syntactically, the copula takes a CP as its first argument, and a DP subject as its second argument. This analysis is similar to Koch's (2009) analysis of Thompson clefting predicate *če*, except with the order of the semantic arguments reversed.

Interestingly, Shank considers an equative analysis (56) of the Northern Straits copula as well, based on data like (57) where it seems that two DPs are being equated with one another. The determiner which introduces the final DP is optional.

$$(56) \quad \llbracket \text{nił} \rrbracket = \lambda x \lambda y. x = y$$

- (57) a. *níł*                      *kʷsə* Richard (*kʷsə*) *ləplít..*  
           3SG.PRED DET Richard (DET) priest  
           Richard is the priest.            (Northern Straits, Shank (2003, p. 218, ex. 5a))
- b. *níł*                      *kʷsə* James (*kʷsə*) Jimmy..  
           3SG.PRED DET James (DET) Jimmy  
           James is Jimmy.                (Northern Straits, Shank (2003, p. 220, ex. 11b))

Cleft residues in Northern Straits may also optionally be introduced by a determiner (58), which on the surface at least, makes them amenable to the equative analysis.

- (58) *níł*                      *kʷsə* Richard (*kʷsə*) *ts-ət*            *kʷsə* *láʔsn.*  
           3SG.PRED DET Richard DET break-TR DET plate  
           It's Richard that broke a plate.  
           (Northern Straits, Shank (2003, p. 219, ex. 8a))

Since there is a preference for the residue, nominal or otherwise, to *not* be introduced by a determiner, Shank (2003) argues that residues are relative clause CPs, rather than DPs, and therefore that the equative analysis (56) is incorrect. Based on comparative evidence with closely related Saanich, where the determiner *k<sup>w</sup>sə* is isomorphic with a complementizer and optional before relative clauses (Montler, 1993), Shank argues that the optional determiners for similar cases in Northern Straits are also complementizers.

Davis et al. (2004, 103) provide one example showing that cleft residues in Northern Straits may not contain an overt NP, which fits with an analysis of the clause introducing particles as being complementizers, similar to Thompson.

- (59) \*nił k<sup>w</sup>sə x<sup>w</sup>ənítəm k<sup>w</sup>sə sténi? leŋ-n-ən.  
 COP DET white.person DET woman see-TR-1SG.ERG  
 It was a white person that was the girl that I saw.  
 (Northern Straits, Davis et al. (2004, p.108, ex.9))

Semantically speaking, exhaustivity is only an implicature for Northern Straits clefts. Shank (2003, 227) incorporates exhaustivity as part of his final semantic analysis of *niłh* (60). Applied to an example like (58), the sentence asserts that “Richard is a subpart of the maximal individual who broke a plate.” Because of a scalar implicature by which any stronger alternative that is not asserted is ruled out Rooth (1992), speakers tend to interpret the individual as a non-proper subpart of a maximal individual.

- (60)  $\llbracket \text{nił} \rrbracket = \lambda P \lambda x. [x \leq y] \wedge y = \iota z. Pz$

Although this analysis captures the exhaustivity effects, Shank notes that the iota operator in (60) predicts that there will be a presupposition of existence associated with Northern Straits clefts, but this does not seem to be the case, given that they can be used in out-of-the-blue circumstances (cf. Davis et al. (2004)). Assuming that determiners in Northern Straits are non-presuppositional, exhaustivity effects might instead derive from the determiner rather than from copula/clefting predicate, as I have claimed is the case for Okanagan, and as originally considered by Shank (2003).

Northern Straits *nił* also functions as an independent pronoun: in argument positions, it must be preceded by a determiner, while in non-argument positions it is not. Shank states that “Another benefit of this analysis which was lacking with the identificational copula analysis is that the pronominal nature of the predicate is transparent. There is a free variable (the variable *y* in [60] which is free to receive its reference from context, as pronouns are” (p. 228). Any benefit of having a contextually-sensitive variable as part of the meaning of the Northern Straits copula might as well be achieved by analyzing the Northern Straits copula as equative and its *determiners* as being contextually sensitive, as in Okanagan, though this approach will not transparently capture the other use of *nił* as an independent pronoun.

Northern Straits *nił* is different than Lillooet *nił*, since the latter is not used as an independent pronoun (though cf. Thoma (2007) for discussion), but the two languages are similar in the sense that residue determiners are optional in at least some contexts. If the generalization that Northern Straits does not allow headed residues is robust, clefts in Northern Straits cannot be equative, which may be another difference between the two languages. Northern Straits does have relatively clear cases of DP-DP structures, and so it is possible that *nił* is semantically ambiguous, as in Lillooet. Alternatively, if simple nouns can function as relative clauses in cases like (57) (cf. discussion for Okanagan in section 8.8), then the copula may be unambiguously predicational. This is within the realm of possibility, considering that in Lillooet identificational contexts at least, nouns may be preceded by an auxiliary predicate *wa?*, and (57b) does seem to be used as an identificational.

### Bella Coola

Bella Coola (a.k.a. Nuxalk) at first glance exhibits strikingly clear examples of DP-DP structures (61a).<sup>30</sup>

- (61) a. ti-ʔimlk                      ti-staltnx-tx.  
               PROX.MASC-man    PROX.MASC-chief-DET.DEF.MASC  
               The chief is a man.            (Bella Coola, Davis and Saunders (1997a, 111))

<sup>30</sup>Glosses are as appear in Davis and Saunders (1997a), supplemented by Hank Nater (p.c.) and myself.

b. ?imlk-∅ ti-nus?ūly-tx.

man-he PROX.MASC-thief-DET.DEF.MASC

The thief is a man. (Bella Coola, Davis and Saunders (1997a, 27))

Despite having a prefix *ti*, which appears to be a determiner similar in form to Lillooet *ti...a*<sup>31</sup>, the initial constituent in (61a) has been identified by Hank Nater (p.c.) as a predicate, analogous to the initial constituent in (61b) which is more clearly a case of direct predication. As such, the prefix *ti* may be analyzed as a non-saturating deictic prefix. The suffix *-tx* on the second constituent of (61a-b) marks a ‘definite’-subject in intransitive contexts (Hank Nater, p.c.), and as a subject, is presumably a DP. I gloss *-tx* as a determiner for the purposes of this discussion. (61a,b) are both analyzable as direct predications, although the predicate in (61a) has an additional deictic specification.

Note that conferring subject DP status on *both* constituents by adding *-tx*, as in (62), is ungrammatical, which implies that DP-DP structures are not in fact possible.

(62) \*ti-?imlk-tx ti-staltmx-tx.

PROX.MASC-man-DET.DEF.MASC PROX.MASC-chief-DET.DEF.MASC

The chief is a man. (Bella Coola, Nater (p.c.))

‘Definite’ subject marking is apparently not absolutely required in these contexts, but is strongly preferred, as indicated by (63b,c) (Davis and Saunders, 1997b, 226-227), discussed in terms of their appropriateness as answers to (63a). This indicates that overt determiners are strongly preferred for subject arguments.<sup>32</sup> The second translation in (63c) indicates that the initial subject DP is interpreted as a cleft focus, and the initial translation suggests that exhaustivity in Bella Coola clefts is only an implicature.

<sup>31</sup>Davis and Saunders (1997a) do not gloss the *ti* prefixes at all. In Davis and Saunders (1997b, 226), they refer to these deictic prefixes as involving the ‘semantics of Particularization’. As such, it is possible that they are ‘determiners’. Bella Coola determiners encode both gender and deictic distinctions (Davis and Saunders, 1997b, 226-227), which I render in the gloss line.

<sup>32</sup>Or alternatively, if the deictic prefixes are in fact determiners, then the generalization may be that ‘predicate’ DPs are only licensed in the context of a subject DP (i.e. an equative context, cf. 61a), but there is no subject in (63b).

- (63) a. wa-<sup>o</sup>-ks    ti-kx-ct.  
who-he-INDIVIDUATIVE PROX.MASC-see-he/you  
Who saw you?
- b. #ci-xnas    ci-kx-cs.  
PROX.FEM-woman PROX.FEM-see-she/me  
A woman saw me.  
(Bella Coola, Davis and Saunders (1997b, 226, ex.18a))
- c. ci-xnas-cx    ci-kx-cs.  
PROX.FEM-woman-DET.DEF.FEM PROX.FEM-see-she/me  
The woman saw me.  
The one who saw me was the woman.  
(Bella Coola, Davis and Saunders (1997b, 227, ex.18c))

- (64) a. \*ti-staltnx-tx                          ti-ʔimlk.  
PROX.MASC-chief-DET.DEF.MASC PROX.MASC-man  
The chief is a man.                          (Bella Coola, Nater (p.c.))
- b. \*ti-nusʔũlɣ-tx                          ʔimlk-∅.  
PROX.MASC-thief-DET.DEF.MASC man-he  
The thief is a man.                          (Bella Coola, Nater (p.c.))

- (65) a. ti-wač                      ti-ʔikm-tx.  
              PROX.MASC-dog   PROX.MASC-run-DET.DEF.MASC  
              The one that's running is a dog.  
              the dog which is running  
              (Bella Coola, Davis and Saunders (1997b, 225, ex.12))
- b. ti-ʔimlk                      ti-ksnmak-tx.  
              PROX.MASC-man   DET.PROX.MASC-work-DET.DEF.MASC  
              The man is the one working.  
              the man who is working  
              (Bella Coola, Davis and Saunders (1997b, 228, ex.19a))

Definite marking for unambiguous cases of relativization always occurs either on the relative clause predicate itself (66a), or else on a clause-internal DP (subject, or object in transitive contexts) (66b). (66c) indicates that nominals may function as relative clauses in Bella Coola, as in Okanagan.<sup>33</sup>

- (66) a. ya-⊙      ti-ʔimlk                      ti-ksnmak-tx.  
              good-he   PROX.MASC-man   PROX.MASC-work-DET.DEF.MASC  
              The man who is working is good.  
              (Bella Coola, Davis and Saunders (1997b, 228, ex.19b))
- b. ti-nusʔu:lɣ                      ti-kx-is                      ti-ʔaḳʷli:kʷ-tx.  
              PROX.MASC-thief   PROX.MASC-see-he/him   PROX.MASC-policeman-DET.DEF.MASC  
              the thief whom the policeman saw.  
              (Bella Coola, Davis and Saunders (1997b, 229, ex.25))
- c. ʔaʎnap-iʔ                      ti-staltnx                      ti-ʔimlk-tx.  
              know-we/him   PROX.MASC-chief   PROX.MASC-man-DET.DEF.MASC  
              We know the man who is chief.  
              (Bella Coola, Davis and Saunders (1997a, 108))

From these data, we can infer that an initial subject, marked by *-tx* (or other

<sup>33</sup>Concerning (66c), Hank Nater (p.c.) notes that the verbal root *nap* means 'to know something', while *kyuk* means 'to know somebody', and that as such, the latter should replace the former in this example.

deictic suffix within the same paradigm), indicates a cleft structure, but that direct predication is strictly subject final. The complete sentence interpretations of (65) may be analyzed as direct predication, although it is unclear why a definite ‘determiner’ *-tx* does not occur on the clausal head for the relative clause interpretations of (65), but *does* occur on the relative clause head for (66c), though it may be a restriction on definite-marked head-initial relative clauses, which might otherwise be interpreted as clefts.

Hank Nater (p.c.) notes that for data like (61a), there is a null allomorph of the introductory particle *tix*, glossed as a male or neutral gender ‘identifier’, a clefting predicate in other words (67a).<sup>34</sup> One might think that Bella Coola *tix* is equivalent to Okanagan *ixiʔ*, especially on the basis of data like (67b), however Nater (p.c.) considers *tix* to be a predicate, and more crucially, *tix* is not a deictic particle.<sup>35</sup>

- (67) a. (tix) ti-ʔimlk ti-staltmx-tx.  
COP PROX.MASC-man PROX.MASC-chief-DET.DEF.MASC  
The chief is a man. (Bella Coola, Nater, (p.c.))  
It is a man who is the chief.
- b. tix-∅ ti-nusʔūlx-tx.  
COP-he PROX.MASC-thief-DET.DEF.MASC  
He's the thief. (Bella Coola, Davis and Saunders (1997a, 114))

Comparing (68b) with (68c), both of which appear to be clefts, we see that copula *tix* is optional here as well.<sup>36,37</sup>

<sup>34</sup>Other identifiers, or copulas, include female gender *cix* and mass *wix*.

<sup>35</sup>Like Okanagan *ixl?* in DP-DP structures, *tix* cannot occur finally (i), but this may be due to the strictly predicate-initial ordering:

- (i) \*ti-nusʔūlyχ-tx (tix-Ø).  
 PROX.MASC-thief-DET.DEF.MASC be he-he  
 He's the thief. (Bella Coola, Nater, p.c.)

<sup>36</sup>Davis and Saunders (1997a) do not include a *-tx* suffix on *ti-mna* in (68c). Nater (p.c.) states that the constituent *ti-mna* ‘son’ in (68c) should be suffixed by *-tx* in order to make it definite, and so I add it here. This makes sense given that ‘son’ in (34) has the definite suffix, and implies that cleft foci are ‘definite’ DPs in Bella Coola.

<sup>37</sup>Nater (p.c.) also notes that the constituent *ti-ʔayaʔ* in (68a), possibly a headless relative DP, should include the future morpheme *ka*, i.e. *ti-ka-ʔayaʔ* given that the question is translated in the

- (68) a. wa- $\emptyset$ -ks                      ti-ʔayaʔ                      ʔuʔ-cumūʔ?  
           who-he-INDIVIDUATIVE PROX.MASC-walk LOC-Cumūʔ  
           Who's going to walk to Cumūʔ?  
           (Bella Coola, Davis and Saunders (1997a, 108))
- b. (tix)    ti-ya                      ti-mna-tx  
           (COP) PROX.MASC-good PROX.MASC-son-DET.DEF.MASC  
           ti-ʔayaʔ.  
           PROX.MASC-walk  
           It's the good son who's walking.  
           (Bella Coola, Davis and Saunders (1997a, 113))
- c. tix- $\emptyset$ -k<sup>w</sup>                      ti-ya                      ti-mna-tx  
           COP-he-QUOT PROX.MASC-good PROX.MASC-son-DET.DEF.MASC  
           ti-ʔayaʔ.  
           PROX.MASC-walk  
           It is, I'm told, the good son who is going.  
           (Bella Coola, Davis and Saunders (1997a, 108))

In sum, (67) and (68) together show that the same copula can be used with both direct predications and clefts, with the major difference between the two types of structures being that clefts are subject-initial, whereas direct predications are strictly subject-final. (67b) additionally suggests that the copula *tix* may select for a null pronoun as an argument. The data indicate that equatives may not be possible with Bella Coola, although more research is required to confirm this hypothesis.

### 9.3.4 Summary of Implications for Salish

Although there are crucial data missing for many of the languages surveyed in this section, and a significant number of other Salish languages are not represented at all in this survey, there are nevertheless some interesting preliminary generalizations to be made concerning DP-DP structures and clefts across Salish. There are also implications for the historical development of DP-DP structures across the family, which raise a huge number of questions for further empirical work on these

---

future tense. Likewise for (68c). Sense tense is non-crucial to this investigation, I retain the original forms and glosses in this case.



languages, especially in the Southern Interior.

### Generalizations

I begin with a summary of the major patterns established by this survey (Table 9.6):

**Table 9.6:** Evidence for Equative versus Predicational Analyses of DP-DP Structures and Clefts across Select Salish Languages

|                           | Equative | Predicational | Copula | ‘Clefting<br>DEM’ |
|---------------------------|----------|---------------|--------|-------------------|
| Okanagan                  | ✓        | *             | ∅      | (ixíʔ)            |
| Kalispel (Montana Salish) | ✓        | *             | ∅      | (iše / šeyʔ)      |
| Coeur d’Alene             | *        | ✓             | ∅      | (ciʔ[ʔ])          |
| Moses-Columbian           | *        | ✓             | ∅      | (ʔaxáʔ)           |
| Shuswap                   | ✓        | *             | ∅      | (yyiʔ)            |
| Thompson                  | (✓)      | ✓             | ʔe     | xeʔ               |
| Lillooet                  | ✓        | (✓)           | nił    | ∅                 |
| Northern Straits          | (✓)      | ✓             | nił    | ∅                 |
| Bella Coola               | *        | ✓             | (tix)  | ∅                 |

The first generalization is that the more western Northern Interior Salish languages, as well as Northern Straits and Bella Coola use a copula (i.e. a clefting predicate) rather than a demonstrative to signal structural focus. Thompson uses both a copula and a demonstrative, while the more eastern Northern Interior Salish language Shuswap, and the entirety of the Southern Interior do not use overt copulas, but optionally signal structural focus with a demonstrative.

The second generalization is that languages which do not have overt copulas generally show clearer evidence in favor of *either* having equative or predicational DP-DP structures and clefts (excepting possibly Bella Coola). Languages which have a dedicated, overt copula use them for both DP-DP structures and clefts, though clefts cannot in certain cases be reduced to an equative analysis.

The third generalization is that there seems to be a slightly stronger tendency for languages which do not use overt copulas to have structures which may be

strongly argued to be equative (i.e. Okanagan, Kalispel, and Shuswap which use demonstratives in DP-DP structures and clefts, versus Lillooet which uses an overt copula).

### Concerning the Possible Historical Development of Equatives

In light of these generalizations, it seems historically plausible that equatives may be an innovation of Southern Interior Salish (or possibly Shuswap), attributable to the fact that these languages use optional demonstratives rather than dedicated clefting predicates in clefts and DP-DP structures.

To explain, demonstratives in Okanagan were shown to form constituents with *i?* DPs, and oblique-marked NPs were shown to function as argument expressions when they are associated with a demonstrative. Although the internal constituency of demonstrative-associated oblique-marked NPs is unclear, the point is that the syntactic status of a particle as being clearly a determiner is not necessarily relevant to its immediate constituent being able to function as a DP argument, when the immediate constituent is associated with a demonstrative. For languages where a demonstrative may be argued to form a constituent with a residue clause (Okanagan, Shuswap), regardless of whether a determiner or complementizer (or oblique marker) follows that demonstrative, the entire constituent may have the distribution of an (internally-complex) DP argument.

In this sense, demonstratives may have played a role in complementizers being reanalyzed as determiners in languages like Kalispel, for instance. That is, since Kalispel does not have an overt copula, and demonstratives are used to signal structural focus, assuming that they form constituents with residue clauses and/or may adjoin to a headed or headless relative clause, a residue-introducing complementizer \**lu*(?) (cf. Moses-Columbian where it is a complementizer) may have been reanalyzed as a determiner, assuming that the entire demonstrative-introduced clause is interpretable as a headless relative clause argument. C-to-D reanalysis did not occur for Coeur d'Alene and Moses-Columbian, and cleft residues remain unambiguously CPs. I tentatively suggest the following historical derivation:

- (69) Possible Development of Equative Clefts in Southern Interior Salish (and Shuswap)

- a. **Stage 1:** copula + DP focus +  $\oslash$  CP residue  
(Proto-Interior Salish #1)
- b. **Stage 2:** copula + DP focus + (DEM) CP residue  
(Proto-Interior Salish #2, Proto-Thompson, Proto-Lillooet)
- c. **Stage 3:**  $\oslash$  + DP focus + (DEM) CP residue  
(Proto-Interior Salish #3, except Proto-Thompson and Proto-Lillooet)
- d. **Stage 4:**  $\oslash$  + DP focus + (DEM) CP residue  
(Coeur d'Alene, Moses-Columbian: no C-to-D reanalysis)
- e. **Stage 5:**  $\oslash$  + DP focus + (DEM) DP residue  
(Okanagan, Kalispel, Shuswap: C-to-D reanalysis)

For languages which use overt copulas and introduce their cleft residues with complementizers (e.g. Thompson), there is no possibility of analyzing the copula as a DP-constituent with a residue (synchronically speaking, at least), and so no tendency to reanalyze residue-introducing complementizers as determiners. This is likely the older pattern, which Coeur d'Alene and Moses-Columbian retained, despite the loss of an overt copula.<sup>38</sup>

### Possible Semantic Motivation for C-to-D Reanalysis

There may also have been a semantic motivation for reanalyzing complementizers as determiners in some languages. Consider again for a moment the predicational analysis of the Northern Straits copula developed in Shank (2003):

$$(70) \quad \llbracket \text{ni}\ddot{t} \rrbracket = \lambda P \lambda x. [x \leq y] \wedge y = \iota z. Pz$$

Here, exhaustivity arises from a scalar implicature by which any stronger alternative that is not asserted is ruled out Rooth (1992), and so speakers tend to interpret the individual as a non-proper subpart of a maximal individual. Given this seman-

<sup>38</sup>It is unclear how languages which use overt copulas and introduce their cleft residues with determiners (e.g. Lillooet, possibly Northern Straits) fit into this overall picture, since there is no clear motivation for re-analyzing complementizers as determiners in these languages. Given that Lillooet *niṭ* was borrowed from Central Salish, a detailed analysis of Central Salish clefts is necessary before anything less speculative can be said.

tic analysis, there is no need for a residue-introducing determiner to contribute an exhaustivity implicature, as under the Percus/Hedberg-style analysis of Okanagan. In Southern Interior Salish and Shuswap, however, there are no overt copulas, and a demonstrative cannot be assumed to carry exhaustivity as a conventional implicature, since it also occurs in non-cleft environments. Exhaustivity implicatures in Southern Interior Salish and Shuswap might nevertheless be introduced by determiners, as they are in Okanagan. Two strong possibilities that emerge are that (i) complementizers were reanalyzed as determiners in Okanagan, Kalispel, and Shuswap, because there was no overt copula, but nevertheless a need for an exhaustivity implicature; or (ii) an overt copula was dropped because complementizers were reanalyzed as determiners, and the exhaustivity implicature carried by the copula became redundant (Lillooet is a potential candidate for such a process, and *nił* is already optional before independent pronouns and possibly proper names).<sup>39</sup>

### A Unified Analysis of Salish Clefts?

The question arises as to whether it may be possible to find a unified semantic and syntactic analysis of DP-DP structures and clefts across Salish. One possible answer comes to mind:<sup>40</sup> If we were to assume that for Salish languages with overt copulas, the copula is the spell-out of a determiner which selects directly for a CP (Hedberg, 2000), then we can explain the absence of (or difficulty in obtaining) overt NP heads in residue clauses in languages like Thompson and Northern Straits, and analyze clefts in these languages as equative. Shank (2003) discusses that *nił* is also used as a third person pronominal in Northern Straits, and so by

<sup>39</sup>On the subject of demonstratives as markers of structural focus, Diessel (1999, 148-149), citing a study by Luo (1997), discusses the fact that focus markers in many languages share the same morphological form as copulas and demonstratives. Diessel (1999, 148) states that “it is conceivable that focus markers may also develop directly from identificational demonstratives in nonverbal clauses.”

(i)  $[[\text{DEM} \oslash \text{NP}_S] [\text{REL CL}_S]_S] \Rightarrow [[\text{FOC NP}_{NP}] : S]$  (Diessel, 1999, 148)

Diessel also states that “.. the focal part of the cleft construction includes an identificational demonstrative in a nonverbal clause..... [this] may account for the development of focus markers in languages such as Ambulas and Mokilese, where demonstratives and focus markers are morphologically related but show no obvious relationship to a copula.” It is therefore possible that demonstratives in the Southern Interior are developing into dedicated clefting predicates.

<sup>40</sup>Thanks to Henry Davis (p.c. 2013) for suggesting this as a possibility.

analyzing pronouns as determiners (Postal, 1966; Elbourne, 2001), the Hedberg analysis might receive independent support. Allowing for a determiner to select for an overt or covert NP head (Percus, 1997) in Salish languages without overt copulas, then it may be possible to subsume predicational clefts as a type of equative. The parameter of variation, then, reduces to the selectional restrictions of a language's determiners.

### **Intensionality in Salish Equatives**

Another question worth considering is whether equative structures across Salish involve the same intensional asymmetry which I have claimed holds for Okanagan. Answering this question will involve not only conducting detailed investigations of determiner semantics in languages which appear to have equatives (esp. Kalispel and Shuswap), but also comparing syntactic and information structural properties of equatives with direct predications in these languages. In Lillooet for example, as I briefly mentioned, assertion-of-existence DPs permit generic readings, but not individual concept readings. There could be microvariation between languages in terms of allowing contextually restricted individual concepts, but much more work needs to be done before anything can be said for certain. A detailed comparative study of determiner semantics and the syntactic and information structural properties of equatives in Okanagan, Kalispel, Shuswap, and Lillooet, could do much to clarify the nature of copular predication in Salish. The results could then be compared to a study of determiner semantics in languages without equatives (Coeur d'Alene and Moses-Columbian), in order to test whether there might be any necessary correlation between determiner properties such as intensionality or maximality, and the existence of equatives. I leave this for future work.

## **9.4 Theoretical Implications**

This section summarizes the major implications of my analysis for the theory. First, I discuss how Okanagan supports a fundamental distinction between predicational and equative clauses. Next, I present my classification of Okanagan non-verbal predications within Higgins' taxonomy.

### 9.4.1 A Distinction between Predication and Equation

Okanagan supports (Heycock and Kroch, 1999) who argue for a distinction between predicational and equative small clauses and copular clauses. DP-DP equatives are not reducible to direct predications in Okanagan, contra some theories of English copular clauses Moro (1997); Adger and Ramchand (2003); den Dikken (2006), since Okanagan DPs, like DPs in other Salish languages, cannot be predicative (Longobardi, 1994; Matthewson, 1998). The distinction between predication and equation therefore corresponds to the syntactic and semantic distinctions between NP and DP: Okanagan NPs may directly predicate themselves of a DP argument, whereas Okanagan DPs may not. Assuming that raising to type  $\langle e, t \rangle$  is not a possibility for Okanagan DPs (which seems apparent given the word order restriction), and via the principle of compositionality, a null equative copula must exist for Okanagan DP-DP structures. I have argued for an intensionality-based asymmetry between the two DPs in a DP-DP equative structure (Romero, 2005), based on independent evidence that Okanagan *i?* DPs may denote individual concepts. My semantic analysis of the copula is given as follows:

(71) **Okanagan equative copula, final analysis**

$$[[=]] = \lambda_{\underline{x} \langle s, e \rangle} \lambda_{y_e} \lambda_{w_s} [\underline{x}(w) = y]$$

The distinction between predicational and equative sentences is motivated by a word order restriction that is manifest for DP-DP structures in answer to WH-questions, which is not apparent for a corresponding direct predication, and by the fact that syntactic inversion is not a possibility (Moro, 1997; den Dikken, 2006)). This word order restriction results from the following lexical property of the equative head:

(72) The equative head assigns a syntactic feature ‘F’ to its second argument.

This feature is interpretable as focus (Rooth, 1992), and alignment constraints force the DP specifier of the equative clause to occur to the left (Koch, 2008a). The distinction between predication and equation in Okanagan is therefore not only a semantic distinction, but also an information structural one.

#### **9.4.2 Higgins' Taxonomic Classification for Okanagan**

For Okanagan, since specificational sentences are not possible, and identificationals pattern like other instances of either direct predication or equation, Okanagan supports reducing Higgins' taxonomy to only two types, predication and equative (Heller, 2005). The taxonomy I propose for Okanagan is shown below in Table 9.7 (cf. Table 7.3).

**Table 9.7:** Higgins' Taxomony and Okanagan Non-Verbal Predications

| CLAUSE TYPE                             | EXAMPLE  | SUBJECT | COMPLEMENT |
|---|--|---------|------------|
| <b>Predicational</b>                    | <i>Wilford</i> $səx^w k^w ul̥x^w əm$<br>$səx^w k^w ul̥x^w əm$ <i>Wilford</i><br>(Wilford is a carpenter)   | e       | <e,t>      |
| (Identificational)                      | <i>Spike</i> $čəlxiča?$<br>$čəlxiča?$ <i>Spike</i><br>(Spike is Chillhitzia)<br><br><i>John</i> $ixiʔ iʔ səx^w k^w l̥mínəm$<br>$ixiʔ iʔ səx^w k^w l̥mínəm$ <i>John</i><br>(That hard worker is John)<br><br><i>ixiʔ John</i><br><i>John</i> <i>ixiʔ</i><br>(That's John) |         |            |
| <b>Equative</b>                         | <i>Wilford</i> $iʔ səx^w k^w ul̥x^w əm$<br>* $iʔ səx^w k^w ul̥x^w əm$ <i>Wilford</i><br>(Wilford is a/the carpenter)   | e       | <s,e>      |
| (Identificational<br>(truncated cleft)) | $ixiʔ$ <i>John</i> [... (residue)]<br><i>John</i> $ixiʔ$ [... (residue)]<br>(It's John)  |         |            |
| (Identificational<br>(full cleft))      | <i>John</i> $ixiʔ [iʔ səx^w k^w l̥mínəm]$<br>* $ixiʔ [iʔ səx^w k^w l̥mínəm]$ <i>John</i><br>(It's John that is the hard worker.)   |         |            |

The difference between Okanagan and languages like English with regards to



Higgins' taxonomy is in part due to differences in the semantic type of the DPs involved in non-verbal predications. The distribution of DPs according to semantic type in contexts involving non-verbal predication in Okanagan and English is shown below in Table 9.8.

**Table 9.8:** Distribution of Semantic Types across DPs in Okanagan Non-Verbal Predications

| <b>Okanagan</b>              | e | <e,t>              | <s,e>                    |
|------------------------------|---|--------------------|--------------------------|
| <i>i?</i> DPs                | ✓ | *                  | ✓                        |
| bare demonstratives          | ✓ | *                  | *                        |
| demonstrative-associated DPs | ✓ | *                  | ✓                        |
| proper names                 | ✓ | ✓                  | *                        |
| <b>English</b>               | e | <e,t>              | <s,e>                    |
| DET DPs                      | ✓ | ✓                  | ✓ Romero (2005)          |
| bare demonstratives          | ✓ | ✓ Mikkelsen (2005) | ✓ Heller & Wolter (2008) |
| demonstrative phrases        | ✓ | *                  | *                        |
| proper names                 | ✓ | ✓ Heller (2005)    | *                        |

There are four major differences which I discuss here.

First, there is good semantic and distributional evidence in Okanagan against analyzing demonstratives and *i?* DPs as predicates of type <e,t>. The analogous expressions in English are often assumed to be of type <e,t> in certain copular environments: e.g. determiner-headed DPs may be analyzed as initial predicates in specificational sentences (Moro, 1997; Mikkelsen, 2005; den Dikken, 2006), bare demonstratives may be analyzed as initial predicates in identificationals (a sub-class of specificational for Mikkelsen (2005) e.g. *That is Susan*).

Second, in non-verbal predication contexts, demonstrative-associated DPs in Okanagan are only of type e when they are the subject of an identificational predication or equative, but they can be of type <s,e> when they are in the complement position of an equative (i.e. when they are cleft residues). In English, demon-

strative phrases have been argued to be of type *e* as subjects of identificational equatives (Mikkelsen, 2005), as well as subjects of identificational predications (Heller, 2005). Adjoined demonstratives in Okanagan ‘inherit’ the intensionality of the overt (or covert) *i?* DP to which they adjoin, as evidenced by data showing that they allow generic and other intensional readings.<sup>41</sup>

Third, there is good distributional evidence that proper names are not necessarily type *e* referential expressions in Okanagan. In equatives, they can only be the second argument of the equative head, and must be of type *e*, however in predications, they may either be type *e* subjects or predicative non-subject expressions. Since they pattern distributionally like other lexical predicates in identificational contexts, I suggest that they are of type  $\langle e, t \rangle$ , and are singleton-set-denoting properties. For English, proper names are usually always analyzed as referential, although Heller (2005, 197) analyzes them as an “essential property that is assumed to be new information” in the complement position of an identificational predication.

Fourth, neither bare demonstratives nor proper names can denote individual concepts of type  $\langle s, e \rangle$  in Okanagan. Intensionality is a special property of *i?* DPs, although a demonstrative-associated *i?* DP may be of type  $\langle s, e \rangle$  when it is in the residue position of a cleft (i.e. functioning as the first argument of the equative copula), including cases where the demonstrative is adjoined to the null residue of a truncated cleft. Heller and Wolter (2008) allow proper names to be of type  $\langle s, \langle \langle s, e \rangle, t \rangle \rangle$ , that is, functions from worlds to sets of individual concepts. Since evidence for such a higher type is not immediately apparent for Okanagan, I assume that proper names, like bare demonstratives, are directly referential, rigid designators (Kaplan, 1977, 1989; Kripke, 1982).

In sum, from Table 9.8, we see that the most apparent semantic differences between Okanagan and English DPs in copular environments are that Okanagan *i?* DPs cannot be of type  $\langle e, t \rangle$ , while English determiner-headed DPs can, and that while English bare demonstratives have been analyzed as intensional (Heller and Wolter, 2008), it is the Okanagan demonstratives in positions *adjoined* to an *i?* DP which I argue to be intensional, not bare demonstratives.

<sup>41</sup>Though it remains an unsolved compositional problem how exactly this is achieved. See section 4.6.1 and section 8.6.2 for discussion.

### 9.4.3 Pragmatic Differences between Okanagan and English Equatives

Another major difference between Okanagan and English surfaces with regards to the pragmatics of non-verbal predications. For English specificational sentences, there is commonly acknowledged to be an old information requirement on the initial DP (Birner, 1996; Heycock and Kroch, 1999; Mikkelsen, 2005). Regardless of whether one analyzes English specificationals as equative clauses or as inverted predicationals, it is significant to note that there is no old information requirement on any DP in an Okanagan equative: the word order is strictly fixed, as required by the semantics of the equative copula (cf. section 7.5) coupled with focus alignment constraints (Koch, 2008a). Although apparent cases of inversion (which I have suggested involve topicalization) in some cases involve an initial *i?* DP that constitutes old information (cf. section 7.7), this is not a requirement, as shown by the fact that these cases are also felicitous in non-presuppositional, out-of-the-blue contexts.

### 9.4.4 Information Structural Differences between Okanagan and English Equatives

Yet another major difference between Okanagan and English can be found with regards to information structure. English copular clauses are not hard-wired in terms of focus, by which I mean that it is not a lexical property of the copula *be*, or of any Pred-head or Equative-head analyses of English, to assign a feature ‘F’ to one of its arguments. In terms of focus-alignment facts in Okanagan, such an approach is motivated because DP-DP structures require the more-referential DP (with the ‘F’ feature) to occur initially, and in terms of pragmatics, DP-DP structures are required in contrastive contexts (cf. section 7.4.1). In contrast, English specificationals may be pragmatically and/or semantically asymmetrical (depending on the theory one adopts), and the fixed information structure (whereby the final DP is interpretable as a focus) is dependant on the satisfaction of a pragmatic condition such that the initial DP represent old information. For Okanagan however, the fixed information structure is a direct result of the semantic and lexical properties of the equative head: that is, there is no pragmatic condition involved.

### 9.4.5 Exhaustivity in Okanagan Equatives

Okanagan DP-DP equative structures carry an implicature of exhaustivity. The fact that exhaustivity is only implied, and not entailed, means that the focused DP in an Okanagan DP-DP equative structure may be interpreted either exhaustively or non-exhaustively. The exhaustivity implicature is induced from a maximality implicature associated with the determiner *i?* in the equative head's first argument. Both are given below:

(73) **Maximality implicature of *i?*:**

$$f = \text{MAX}$$

(74) **Exhaustivity Implicature:**

A sentence of the form  $[x_{DP}] = [i? Y_{DP}]$

a. Asserts:

$$\exists f. x = f(Y)$$

b. Via (73) this implicates:

$$x = \text{MAX}(Y)$$

c. And assuming (74b) is satisfied, a DP-DP structure asserts:

*x* is the *only* *Y*

That is, if all else is equal, an *i?* DP will be interpreted as denoting the maximal singular or plural individual in the intersection of the context set and the NP set. In an equative sentence, the maximality implicature induces an exhaustivity implicature, such that the initial focused DP will be interpreted as the *only* individual equivalent to the maximal referent denoted by the *i?* DP.

### 9.4.6 Interpretive Variability in Okanagan versus English Equatives

Since exhaustivity in Okanagan is only an implicature, this leads to an interpretive variability for DP-DP structures that is interesting from a cross-linguistic perspective on copular predication: (pseudo-)predicational readings are made available via an equative semantics. For cases where the exhaustivity implicature of a DP-DP structure is not satisfied, the direct and DP-DP structure below will be functionally

equivalent:

- (75) a. Mary səx<sup>w</sup>-məʔ-máyaʔ-m.  
Mary OCC-RED-teach-MID  
Mary is a teacher.
- b. Mary iʔ səx<sup>w</sup>-məʔ-máyaʔ-m.  
Mary DET OCC-RED-teach-MID  
Mary is a teacher.

The interpretive ambiguity in Okanagan equative DP-DP structures like (75b) depends not on semantic type, since the *iʔ* DP will always be of type <*s*,*e*>, and the initial subject of type *e*. It instead depends on whether or not an *iʔ* DP is interpreted as maximal or non-maximal.

This relates to my earlier discussion pertaining to English sentences such as *The morning star is the evening star*, which although canonically considered to be equative, may also have a predication or specificational interpretation depending on context. Under theories which analyze specificationals as inverted predicationals, the first or second DP may be of type <*e*,*t*>, depending on the interpretation. For Heycock & Kroch, the specificational interpretation of *The morning star is the evening star* must be semantically equative, with an additional “old information” requirement on the initial DP. A non-specificational equative interpretation is presumably still available in contexts where the initial DP does not convey old information. The point is that for both English specificationals, which are pragmatically (Heycock and Kroch, 1999) and information-structurally asymmetrical (Higgins, 1973), and Okanagan equatives, which are semantically and information-structurally asymmetrical, the interpretive variability of a given sentence may be derived without resorting to semantic type-shifting.

#### 9.4.7 Fixed Information Structure and the Connection to Clefts

It is instructive to compare Okanagan equatives to English inverse specificational pseudoclefts such as (76a) (den Dikken et al., 2000) and clefts such as (76b).

(76) a. Otto Preminger was who I met.

b. It was Otto Preminger who I met.

Okanagan equatives have a fixed information structure similar to the sentences in (76) in terms of the fact that the initial DP is interpretable as a focus, but unlike English, there is no requirement that the second constituent be old information, since there is no presupposition associated with Okanagan equatives. There *is* a requirement that the second constituent be intensional, however. As such, Okanagan sentences involving a fixed information structure (i.e. equative DP-DP structures and clefts) are defined as a class by the presence of an *i?* DP, and thus by intensionality. English sentences involving a fixed information structure such as (76) are defined as a class by an existential presupposition.

These differences between English and Okanagan explain the relative pragmatic markedness of English sentences involving fixed information structure, and the relative unmarkedness of the corresponding Okanagan structures.

Okanagan clefts also carry an implicature of exhaustivity, exactly as do simpler Okanagan DP-DP equative structures. As such, and in tandem with independent morphosyntactic evidence involving the oblique marker *t* (which I introduce in chapter 4), I claim that Okanagan clefts are also equative DP-DP structures, and present a derivational analysis of clefts as equative structures (cf. section 8.6). This analysis supports theories of English clefts which derive clefts from simpler copular predications (Percus, 1997), and relates the fixed information structure of Okanagan DP-DP structures to the semantics of the *i?* determiner. Okanagan DP-DP structures may be viewed as a type of cleft, given their fixed information structure.

Percus (1997) derives English clefts from specificational copular clauses, noting that both structures are constrained by discourse in the same way. Under the argument that English specificationals are equative (Heycock and Kroch, 1999), and in light of the information structural parallels between Okanagan DP-DP equatives and clefts on the one hand and English specificational sentences and clefts on the other (Percus, 1997), I suggest that clefts in both languages may be analyzed as equatives. Strictly speaking, Okanagan supports (Percus, 1997) over (Hedberg, 2000), since the former in principle permits residue clauses to be headed. In ac-

tuality, headed residues in English should be ungrammatical under Percus' derivation (cf. section 8.6), but this is due rather to the extraposition requirement on English clefts, and because *it* is a spell-out of *the* plus a null head. Other Salish languages, which introduce their cleft residues with complementizers and do not allow residue-internal NP heads, may ultimately support Hedberg (2000) (cf. section 9.3.4).

#### **9.4.8 Conclusion**

In conclusion, my approach to Okanagan predication and equation supports a view of Higgins' taxonomy as a taxonomy of "syntax-semantics alignments which is further conditioned by information structure" (Mikkelsen, 2011, 1813), and sheds new light on the debate between inverse predication versus equative analyses of specificational sentences, how Higgins' taxonomy might be reducible, and the derivational relation between copular sentences with fixed information structure and clefts.

# Bibliography

- Adger, D. and G. Ramchand (2003). Predication and Equation. *Linguistic Inquiry* 34(3), 325–359. → pages ii, 20, 30, 32, 217, 235, 410
- Akmajian, A. (1970). On deriving cleft sentences from pseudo-cleft sentences. *Linguistic Inquiry* 1, 149–168. → pages 51
- Akmajian, A. (1979). *Aspects of the Grammar of Focus in English*. New York: Garland. → pages 28, 29
- Baker, M. (2003). *Lexical Categories: Verbs, Nouns, and Adjectives*. New York: Cambridge University Press. → pages ii, 3, 22, 113, 233, 235
- Baker, M. C. (1996). *The Polysynthesis Parameter*. Oxford Studies in Comparative Syntax. New York: Oxford University Press. → pages 217
- Baptiste, M. (2001). WH Questions in Okanagan. Master's thesis, University of British Columbia, Vancouver, BC. → pages 65, 67, 69, 70, 131, 174
- Bar-el, L. A. (2006). *Aspectual distinctions in Skwxwú7mesh*. Ph. D. thesis, University of British Columbia. → pages 229
- Barthmaier, P. (2002). Transitivity and lexical suffixes in Okanagan. In *Papers for the 37th Annual International Conference on Salish and Neighboring Languages*, Volume 9, pp. 1–17. UBCWPL. → pages 92, 93
- Barthmaier, P. (2004). Intonation Units in Okanagan. In D. B. Gerdts and L. Matthewson (Eds.), *Studies in Salish Linguistics: In Honor of M. Dale Kinkade*, Volume 17 of *University of Montana Occasional Papers in Linguistics*, pp. 30–42. → pages 50, 268, 355
- Barwise, J. and R. Cooper (1981). Generalized quantifiers and natural language. *Linguistics and Philosophy* 4, 159–219. → pages 125, 147



- Birner, B. (1996). *The Discourse Function of Inversion in English*. New York: Garland. → pages 29, 357, 415
- Birner, B., J. Kaplan, and G. Ward (2007). Functional compositionality and the inter- action of discourse constraints. *Language* 83, 323–349. → pages 33
- Bittner, M. and K. Hale (1996). The structural determination of case and agreement. *Linguistic Inquiry* 27, 1–68. → pages 99
- Boas, F. and J. Teit (1930). *Coeur d'Alene, Flathead and Okanagon Indians*. Washington, DC: United States Government Printing Office. → pages 10, 15
- Bowers, J. (1993). The syntax of predication. *Linguistic Inquiry* 24, 591–656. → pages 22, 34, 233
- Brisson, C. (1998). *Distributivity, Maximality, and Floating Quantifiers*. Ph. D. thesis, Rutgers University. → pages 148
- Camp, K. M. (2007). An Interlinear Analysis of Seven Kalispel texts from Hans Vogt. Master's thesis, University of Montana, Missoula, MT. → pages 362, 363, 365, 366, 367
- Carlson, G. (1977). *Reference to Kinds in English*. Ph. D. thesis, University of Massachusetts, Amherst. → pages 151, 176
- Carlson, G. (2006). The meaningful bounds of incorporation. In S. Vogeeler and L. Tasmowski (Eds.), *Non-definiteness and plurality*, pp. 35–50. John Benjamins. → pages 122, 124, 136, 156, 162
- Chierchia, G. (1984). *Topics in the Syntax and Semantics of Infinitives and Gerunds*. Ph. D. thesis, University of Massachusetts, Amherst. → pages 24
- Chierchia, G. (1998). Reference to kinds across languages. *Natural Language Semantics* 6, 339–405. → pages 4, 5, 80, 151, 153, 335, 351, 395
- Chomsky, N. (1971). Deep structure, surface structure, and semantic interpretation. In D. Steinberg and L. Jakobovits (Eds.), *Semantics: An Interdisciplinary Reader in Philosophy, Linguistics, and Psychology*, pp. 183–216. New York: Cambridge University Press. → pages 48
- Chomsky, N. (1975). *The logical structure of linguistic theory*. Chicago: University of Chicago Press. → pages 36

- Chomsky, N. (1977). On Wh-movement. In P. Culicover, T. Wasow, and A. Akmajian (Eds.), *Formal Syntax*, pp. 71–132. New York: Academic Press. → pages 51
- Chomsky, N. (1981). *Lectures in Government and Binding*, Volume 9 of *Studies in Generative Grammar*. Dordrecht: Foris. → pages 37, 40
- Chung, S. and W. Ladusaw (2004). *Restriction and saturation*. Cambridge, MA: MIT Press. → pages 122, 124, 136, 156, 162, 163
- Cinque, G. (1999). *Adverbs and functional heads: A cross-linguistic perspective*. Oxford Studies in Comparative Syntax. New York: Oxford University Press. → pages 226
- Comorovski, I. (2007). Constituent questions and the copula of specification. In I. Comorovski and K. von Stechow (Eds.), *Existence. Semantics and Syntax*, pp. 49–77. Dordrecht: Springer. → pages ii, 18, 21, 29, 35, 44, 216, 218, 246, 248, 262, 351, 355
- Cooper, R. (1979). The Interpretation of Pronouns. In F. Heny and H. Schnelle (Eds.), *Syntax and semantics, vol. 10*. New York: Academic Press. → pages 127
- Czaykowska-Higgins, E. and M. D. Kinkade (1998). *Salish Languages and Linguistics: Theoretical and Descriptive Perspectives*. Trends in Linguistics: Studies and Monographs 107. Berlin: Mouton de Gruyter. → pages 234, 239
- Darnell, M. (1995). Preverbal nominals in Colville-Okanagan. In P. Downing and M. Noonan (Eds.), *Word order in Discourse*, pp. 85–104. Amsterdam and Philadelphia: John Benjamins. → pages 65
- Davis, E. (1990). *ḡáḡḡaḡ stámkaʔs: The Story of Crow's Daughter*. manuscript. → pages 372, 374, 375
- Davis, H. (1994). Tali-Ho! In *Papers for the 29th Annual International Conference on Salish and Neighboring Languages*, pp. 117–144. → pages 137
- Davis, H. (1997). Deep Unaccusativity and Zero Syntax in St'át'imcets. In A. Mendikoetxea and M. Uribe-Etxebarria (Eds.), *Theoretical Issues at the Morphology-Syntax Interface (Supplements of the International Journal of Basque Linguistics and Philology)*, pp. 55–96. Bilbao, Spain. → pages 87, 162
- Davis, H. (1999a). On Nouns and Nominalization in Salish. manuscript. → pages 3, 217

- Davis, H. (1999b). Word Order and Configurationality in St'át'imcets. In *Papers for the 34th Annual International Conference on Salish and Neighboring Languages*, pp. 61–83. → pages 65, 75, 115
- Davis, H. (2002). Categorical restrictions on modification in St'át'imcets. In *Papers for the 37th Annual International Conference on Salish and Neighboring Languages*, Volume 7 of *University of British Columbia Working Papers in Linguistics*, pp. 61–75. UBCWPL. → pages 16, 168, 207
- Davis, H. (2004). Locative relative clauses in St'át'imcets (Lillooet Salish). In J. Brown and T. Peterson (Eds.), *Papers for the 39th Annual International Conference on Salish and Neighboring Languages*, Volume 14 of *University of British Columbia Working Papers in Linguistics*, pp. 83–116. UBCWPL. → pages 16, 18, 81, 168, 187, 201, 207, 354
- Davis, H. (2005). Constituency and Coordination in St'át'imcets (Lillooet Salish). In A. Carnie, S. A. Dooley, and H. Harley (Eds.), *Verb First: on the Syntax of Verb Initial Languages*. Amsterdam: John Benjamins. → pages 68, 69
- Davis, H. (2006). The Status of Condition C in St'át'imcets. In S. Bischoff, L. Butler, P. Norquest, and D. Siddiqi (Eds.), *MIT Working Papers in Endangered Languages: Studies in Salishan*, pp. 49–92. Cambridge, MA: MITWPL. → pages 41, 114, 243, 245, 289
- Davis, H. (2007). VP ellipsis in St'át'imcets and its implications. manuscript. → pages 71
- Davis, H. (2009). Cross-linguistic Variation in Anaphoric Dependencies: Evidence from the Pacific Northwest. *Natural Language and Linguistic Theory* 27(1), 1–43. → pages 41, 114, 243, 245, 289
- Davis, H. (2010a). A Unified Analysis of Relative Clauses in St'át'imcets. *Northwest Journal of Linguistics* 4(1), 1–43. → pages 16, 18, 81, 102, 168, 187, 190, 196, 197, 201, 204, 207, 208, 212, 314, 354, 394
- Davis, H. (2010b). Salish Languages lack generalized quantifiers after all! In N. Li and D. Lutz (Eds.), *Proceeding of Semantics and Linguistic Theory (SALT) 20*. → pages 148, 149
- Davis, H. (2010c). Teaching Grammar of St'át'imcets. manuscript. → pages 97, 278, 390, 391, 392, 395
- Davis, H. (2011). Stalking the Adjective in St'át'imcets. *Northwest Journal of Linguistics* 5(2), 1–60. → pages 78, 80, 81, 168, 179, 187, 358

- Davis, H., S. Lai, and L. Matthewson (1997). Cedar Roots and Singing Detectives: Attributive Modification in Salish and English. In *Papers for the 32nd Annual International Conference on Salish and Neighboring Languages*, pp. 291–316. → pages 75, 81, 91, 168, 175, 176, 179
- Davis, H. and L. Matthewson (2003). Quasi-objects in St’át’imcets: on the (semi)independence of agreement and case. In A. Carnie, H. Harley, and M. A. Willie (Eds.), *A Festschrift for Eloise Jelinek (Linguistik Aktuell 62)*, pp. 80–106. Amsterdam: John Benjamins. → pages 62, 85, 86, 111, 211
- Davis, H. and L. Matthewson (2009). Issues in Salish Syntax and Semantics. *Language and Linguistic Compass* 3/4, 1097–1166. → pages 162
- Davis, H., L. Matthewson, and S. Shank (2004). Clefts vs. nominal predicates in two Salish languages. In D. B. Gerdts and L. Matthewson (Eds.), *Studies in Salish Linguistics in Honour of M. Dale Kinkade*, pp. 100–117. University of Montana Occasional Papers in Linguistics, vol. 10. → pages ii, 3, 17, 18, 19, 216, 225, 226, 249, 291, 293, 294, 297, 302, 304, 305, 306, 315, 342, 353, 355, 377, 378, 382, 385, 392, 393, 398
- Davis, P. W. and R. Saunders (1997a). *A Grammar of Bella Coola*. Missoula, MT: University of Montana Occasional Papers in Linguistics, vol. 13. → pages 399, 400, 402, 403, 404
- Davis, P. W. and R. Saunders (1997b). The Bella Coola relative clause. In E. Czaykowska-Higgins and M. D. Kinkade (Eds.), *Salish Languages and Linguistics: Theoretical and Descriptive Perspectives*, Number 107 in Trends in Linguistics: Studies and Monographs, pp. 219–234. Berlin: Mouton de Gruyter. → pages 400, 401, 402
- Déchaine, R.-M. and M. Tremblay (2011). Deriving Nominal Reference. In *Proceedings of WECOL 2011*, Vancouver, BC. → pages 166
- Delahunty, G. (1982). *Topics in the syntax and semantics of English cleft sentences*. Ph. D. thesis, University of California. → pages 51
- Demirdache, H. (1996). The Chief of the United States Sentences in St’át’imcets (Lillooet Salish): A Cross-Linguistic Asymmetry in the Temporal Interpretation of Noun Phrases and Its Implications. In *Papers for the 31st Annual International Conference on Salish and Neighboring Languages*, pp. 79–100. → pages 123, 135, 153, 351, 395

- Demirdache, H. and L. Matthewson (1995). On the universality of syntactic categories. In *Proceedings of the 25th Annual Meeting of the North Eastern Linguistic Society*, pp. 79–94. Graduate Linguistic Student Association, University of Massachusetts, Amherst. → pages 75, 81, 179
- den Dikken, M. (2006). *Relators and Linkers: The Syntax of Predication, Predicate Inversion, and Copulas*, Volume 47 of *Linguistic Inquiry Monographs*. Cambridge, MA: MIT Press. → pages 20, 22, 30, 34, 35, 38, 45, 216, 233, 235, 240, 241, 287, 350, 410, 413
- den Dikken, M., A. Meinunger, and C. Wilder (2000). Pseudoclefts and ellipsis. *Studia Linguistica* 54, 41–89. → pages 31, 40, 45, 339, 417
- Diesing, M. (1992). *Indefinites*. Cambridge, MA: MIT Press. → pages 133
- Diessel, H. (1999). *Demonstratives: Form, Function and Grammaticalization*. Amsterdam: John Benjamins. → pages 408
- Doak, I. G. (1983). *The 1908 Okanagan word lists of James Teit*. Missoula, MT: University of Montana Occasional Papers in Linguistics, vol. 3. → pages xiv, 9
- Doak, I. G. (1997). *Coeur d'Alene grammatical relations*. Ph. D. thesis, University of Texas at Austin. → pages 367, 368, 369, 370
- Elbourne, P. (2001). E-type Anaphora as NP-deletion. *Natural Language Semantics* 9, 241–288. → pages 127, 409
- Emonds, J. (1976). *A transformational approach to English syntax: root, structure- preserving, and local transformations*. New York: Academic Press. → pages 51
- Enç, M. (1981). *Tense without Scope: An analysis of Nouns as Indexicals*. Ph. D. thesis, University of Wisconsin, Madison. → pages 153, 351
- Enç, M. (1991). The semantics of specificity. *Linguistic Inquiry* 22, 1–25. → pages 133
- Evans, G. (1980). Pronouns. *Linguistic Inquiry* 11, 337–362. → pages 127
- Farkas, D. and H. de Swart (2004). *The semantics of incorporation*. Chicago: CSLI Publications. → pages 122, 124, 162
- Féry, C. (2013). Focus as prosodic alignment. *Natural Language and Linguistic Theory* 31, 683–734. → pages 48

- FPHLCC (2010). *Report on the Status of B.C. First Nations Languages, 2010*. Brentwood Bay, BC: First Peoples' Heritage, Language and Culture Council. → pages 8
- Gardiner, D. (1993). *Structural Asymmetries and Preverbal Positions in Shuswap*. Ph. D. thesis, Simon Fraser University, Burnaby, BC. → pages 17, 65, 71, 151, 228, 299, 377, 378, 379, 380, 381
- Gardiner, D. (1996). Determiner Phrases in Secwepmectsin (Shuswap). In *Papers for the 31st Annual International Conference on Salish and Neighboring Languages*, pp. 175–184. → pages 99, 377, 378, 379, 396
- Geist, L. (2007). Predication and equation in copular sentences. Russian vs. English. In I. Comorovski and K. von Stechow (Eds.), *Existence. Syntax and Semantics*, pp. 79–105. Dordrecht: Springer. → pages 32, 248
- Gerdts, D. (1988). *Object and Absolutive in Halkomelem Salish*. New York: Garland. → pages 115
- Gerdts, D. B. (2006). Argument Realization in Halkomelem: A Study in Verb Classification. In *Proceedings of WSCLA XI*, pp. 61–81. UBCWPL vol 19. → pages 162
- Gerdts, D. B. and T. E. Hukari (2003). The expression of NPs in Halkomelem texts. In *Papers for the 38th Annual International Conference on Salish and Neighboring Languages*, pp. 91–126. UBCWPL vol 11. → pages 86, 137
- Gerdts, D. B. and T. E. Hukari (2004). Determiners and transitivity in Halkomelem texts. In D. B. Gerdts and L. Matthewson (Eds.), *Studies in Salish Linguistics in Honour of M. Dale Kinkade*, pp. 151–171. University of Montana Occasional Papers in Linguistics, vol. 10. → pages 67
- Gerdts, D. B. and T. E. Hukari (2012). A Closer Look at Salish Intransitive/Transitive Alternations. In *Proceedings of the Thirty-Second Annual Meeting of the Berkeley Linguistics Society*, pp. 503–514. University of California, Berkeley. → pages 162
- Gerdts, D. B. and K. Kiyosawa (2010). *Salish Applicatives*. Leiden: Brill. → pages 92, 211
- Giannakidou, A. (2004). Domain restriction and the arguments of quantificational determiners. In *Proceedings of SALT XIV*, Ithaca, NY, pp. 110–128. → pages 148

- Gillon, C. (2006). *The semantics of determiners: domain restriction in Skwxú7mesh*. Ph. D. thesis, University of British Columbia, Vancouver, BC. → pages 17, 18, 96, 118, 123, 125, 126, 129, 130, 139, 150, 156, 163, 164, 166, 354, 365, 386
- Gillon, C. (2009a). Deictic features: evidence from Skwxú7mesh. *International Journal of American Linguistics* 75, 1–27. → pages 17, 18, 354
- Gillon, C. (2009b). The semantic core of determiners: Evidence from Skwxú7mesh. In J. Ghomeshi, I. Paul, and M. Wiltschko (Eds.), *Determiners: Universals and variation*, pp. 177–214. Amsterdam: John Benjamins. → pages 17, 100
- Gundel, J. K. (1977). Where do cleft sentences come from? *Language* 53, 34–59. → pages 51
- Gupta, A. (1980). *The Logic of Common Nouns: An Investigation in Quantified Modal Logic*. New Haven, CT: Yale University Press. → pages 290
- Halpern, A. (1995). *On the Placement and Morphology of Clitics*. Dissertations in Linguistics. Stanford: CSLI Publications. → pages 98, 100
- Halvorsen, P.-K. (1978). *The syntax and semantics of cleft constructions*. Ph. D. thesis, University of Texas at Austin. → pages 51
- Hébert, Y. (1978). Sandhi in a Salishan Language: Okanagan. In *Papers for the 13th Annual International Conference on Salishan Languages*, pp. 26–56. → pages 58
- Hébert, Y. (1978-1980). Yvonne Hébert's Field Recordings. → pages 321
- Hébert, Y. (1982a). Clausal structure in (Nicola Lake) Okanagan. In *Final report to Canadian Ethnology Service. National Museum of Man, Ottawa*. → pages 13, 15, 67, 75, 80, 328
- Hébert, Y. (1982b). *Transitivity in (Nicola Lake) Okanagan*. Ph. D. thesis, University of British Columbia. → pages 13, 15, 63, 66, 67, 168, 202
- Hedberg, N. (2000). The Referential Status of Clefts. *Language* 76(4), 891–920. → pages iii, 21, 51, 52, 54, 55, 274, 293, 304, 337, 338, 343, 353, 386, 387, 408, 418, 419
- Heggie, L. (1988). *The Syntax of Copular Structures*. Ph. D. thesis, University of Southern California. → pages 233, 235, 284

- Heggie, L. (1993). The range of null operators: evidence from clefting. *Natural Language and Linguistic Theory* 11, 45–84. → pages 51
- Heim, I. (2011). Definiteness and Indefiniteness. In C. Maienborn, K. von Heusinger, and P. Portner (Eds.), *An International Handbook of Natural Language Meaning, vol. 1*. Berlin: Mouton de Gruyter. → pages 24, 54, 129, 137
- Heim, I. and A. Kratzer (1998). *Semantics in Generative Grammar*. Malden, Massachusetts: Blackwell Publishing. → pages 163, 185, 188
- Heller, D. (2002). On the relation of connectivity and specificational pseudoclefts. *Natural Language Semantics* 10, 243–284. → pages 40
- Heller, D. (2005). *Identity and Information. Semantic and Pragmatic Aspects of Specificational Sentences*. Ph. D. thesis, Rutgers University. → pages ii, 25, 29, 33, 216, 217, 219, 240, 289, 290, 352, 411, 413, 414
- Heller, D. and L. Wolter (2008). ‘That is Rosa’: Identificational Sentences as Intensional Predication. *Proceedings of Sinn und Bedeutung* 12, pp. 226–240. University of Oslo. → pages 290, 414
- Heycock, C. (2012). Specification, equation, and agreement in copular sentences. *Canadian Journal of Linguistics* 57(2), 209–240. → pages 21, 218
- Heycock, C. and A. Kroch (1999). Pseudocleft Connectedness: Implications for the LF Interface Level. *Linguistic Inquiry* 30(3), 365–397. → pages ii, 18, 21, 22, 30, 31, 33, 34, 35, 39, 40, 41, 42, 43, 45, 54, 216, 218, 235, 237, 242, 247, 259, 286, 349, 351, 353, 410, 415, 417, 418
- Higginbotham, J. (1985). On semantics. *Linguistic Inquiry* 16, 547–593. → pages 233
- Higgins, F. R. (1973). *The Pseudo-cleft Construction In English*. Ph. D. thesis, Massachusetts Institute of Technology, Cambridge, MA. → pages ii, 2, 6, 18, 23, 26, 28, 29, 32, 40, 217, 237, 257, 270, 417
- Jackendoff, R. (1972). *Semantic Interpretation in Generative Grammar*. Cambridge, MA: MIT Press. → pages 45, 46, 47, 48, 222, 313, 351
- Jacobson, P. (1994). Binding connectivity in copular sentences. In M. Harvey and L. Santelmann (Eds.), *Proceedings of Semantics and Linguistic Theory (SALT) IV*, pp. 161–178. → pages 40



- Jelinek, E. (1998). Prepositions in Northern Straits Salish and the Noun/Verb Question. In E. Czaykowska-Higgins and M. D. Kinkade (Eds.), *Salish Languages and Linguistics: Theoretical and Descriptive Perspectives*, pp. 325–346. Berlin: Mouton de Gruyter. → pages 3, 75
- Jespersen, O. (1927). *A modern English grammar on historical principles. Part III: Syntax. Second Volume*. Heidelberg: Carl Winters. → pages 51
- Jespersen, O. (1937). *Analytic syntax*. New York: Holt, Rinehart, and Winston. → pages 51
- Jespersen, O. (1940). *A modern English grammar on historical principles*, Volume V:4 of *Syntax*. Copenhagen: Munksgaard. → pages 36
- Kaplan, D. (1977). Demonstratives. In J. Almong, J. Perry, and H. Wettstein (Eds.), *Themes from Kaplan (1989)*, pp. 481–563. Oxford, England: Oxford University Press. → pages 44, 262, 356, 414
- Kaplan, D. (1989). Afterthoughts. In J. Almong, J. Perry, and H. Wettstein (Eds.), *Themes from Kaplan*, pp. 565–614. Oxford, England: Oxford University Press. → pages 356, 414
- Karttunen, L. (1977). Syntax and Semantics of Questions. *Linguistics and Philosophy* 1, 3–44. → pages 251
- Kayne, R. (1994). *The Antisymmetry of Syntax*. Cambridge, MA: MIT Press. → pages 34, 235
- Keenan, E. (1985). Relative Clauses. In T. Shopen (Ed.), *Language Typology and Syntactic Description*, vol. 2, pp. 141–170. New York: Cambridge University Press. → pages 188
- King, J. C. (2001). *Complex demonstratives: a quantificational account*. Cambridge, MA: MIT Press. → pages 357
- Kinkade, M. D. (1983). Salish evidence against the universality of ‘noun’ and ‘verb’. *Lingua* 60, 25–40. → pages 3, 75
- Kiss, K. É. (1998). Identificational focus versus information focus. *Language* 74, 245–273. → pages 48, 51, 52, 301
- Kiss, K. É. (1999). The English cleft construction as a focus phrase. In L. Mereu (Ed.), *Boundaries of morphology and syntax*, pp. 217–229. Amsterdam: John Benjamins. → pages 51

- Koch, K. (2004). On predicate modification in Ntəʔkepmxcín (Thompson River Salish). In J. Brown and T. Peterson (Eds.), *Papers for the 39th Annual International Conference on Salish and Neighboring Languages*, Vancouver, BC, pp. 269–282. UBCWPL vol 14. → pages 75, 168
- Koch, K. (2006). Nominal Modification in Ntəʔkepmxcín (Thompson River Salish). In S. Bischoff, L. Butler, P. Norquest, and D. Siddiqi (Eds.), *Studies in Salishan, Working Papers on Endangered and Less Familiar Languages* 7, Cambridge, MA, pp. 127–158. MITWPL. → pages 16, 18, 78, 81, 168, 176, 182, 185, 187, 188, 201, 204, 205, 212, 354, 383, 389
- Koch, K. (2008a). *Focus and Intonation in Ntəʔkepmxcín (Thompson River Salish)*. Ph. D. thesis, University of British Columbia. → pages 17, 19, 21, 45, 48, 49, 50, 54, 106, 216, 218, 222, 248, 249, 256, 261, 262, 266, 267, 287, 291, 294, 297, 299, 303, 306, 308, 313, 315, 318, 332, 333, 342, 347, 351, 353, 355, 356, 365, 373, 375, 376, 382, 383, 384, 385, 386, 387, 388, 389, 392, 396, 410, 415
- Koch, K. (2008b). Focus Projection in Ntəʔkepmxcín (Thompson River Salish). In C. B. Chang and H. J. Haynie (Eds.), *Proceedings of the 26th West Coast Conference on Formal Linguistics*, Somerville, MA, pp. 348–356. Cascadilla Proceedings Project. → pages 297, 299, 382
- Koch, K. (2009). Some Issues in the Structure and Interpretation of Clefts in Ntəʔkepmxcín (Thompson River Salish). In *Papers for the 43rd Annual International Conference on Salish and Neighboring Languages*, pp. 97–120. UBCWPL vol 23. → pages 17, 54, 291, 293, 295, 315, 355, 365, 375, 382, 383, 396
- Koch, K. (2012). An Overview of some focus-related properties of Thompson Salish. UBC Focus Workshop, May 10, 2012, Vancouver, BC. → pages 285
- Koch, K. and M. Zimmermann (2009). Focus-sensitive operators in Ntəʔkepmxcín. In M. Prinzhorn, V. Schmitt, and S. Zobel (Eds.), *Proceedings of Sinn und Bedeutung 14*, Vienna. → pages 21, 305, 355, 382
- Kratzer, A. (1998). Scope or Pseudo-Scope? Are There Wide-Scope Indefinites? In S. Rothstein (Ed.), *Events in Grammar*. Dordrecht: Kluwer Academic Publishers. → pages 122, 140
- Krifka, M. (1991). A compositional semantics for multiple focus constructions. In J. Jacobs (Ed.), *Informationsstruktur und Grammatik, Sonderheft der*

*Linguistischen Berichte*, pp. 17–53. Opladen: Westdeutscher Verlag. → pages 43

Krifka, M. (2008). Basic Notions of Information Structure. *Acta Linguistica Hungarica* 55(3-4), 243–276. → pages 20, 304, 305, 340

Kripke, S. A. (1982). *Naming and Necessity*. Cambridge, MA: Harvard University Press. → pages 44, 262, 264, 414

Kroeber, P. (1986). Antipassives and the differentiation of progressive aspect in Southern Interior Salish. *CLS* 22(part 1), 75–89. → pages 99

Kroeber, P. (1991). *Comparative Syntax of Subordination in Salish*. Ph. D. thesis, University of Chicago. → pages 239

Kroeber, P. (1995). Rhetorical structure of a Kalispel narrative. *Anthropological Linguistics* 37(2), 119–140. → pages 366

Kroeber, P. (1997). Relativization in Thompson River Salish. *Anthropological Linguistics* 39, 376–422. → pages 80, 81, 200, 354, 383, 385, 387

Kroeber, P. (1999). *The Salish Language Family: Reconstructing Syntax*. Lincoln, Nebraska: University of Nebraska Press. → pages 3, 16, 72, 81, 83, 89, 100, 101, 110, 123, 171, 172, 173, 188, 196, 225, 226, 291, 293, 294, 297, 310, 311, 315, 342, 361, 382, 387, 389

Kuipers, A. H. (1974). *The Shuswap language*. The Hague, Netherlands: Mouton de Gruyter. → pages 344, 377, 378, 379, 380, 381, 382

Kuipers, A. H. (1989). *A Report on Shuswap (with a Squamish Lexical Appendix)*, Volume 2 of *Langues Et Sociétés D'Amérique Traditionnelle*. Paris: Peeters-Selaf. → pages 377, 381

Kuipers, A. H. (2002). *Salish Etymological Dictionary*. Missoula, MT: University of Montana Occasional Papers in Linguistics vol. 16. → pages 363

Lai, S. (1998). Secwepemctsin Independent Pronouns: Evidence for Subject-Object Asymmetry. In *Papers for the 33rd Annual International Conference on Salish and Neighboring Languages*, pp. 307–321. → pages 377, 378

Lindley, L. and J. Lyon (2012). 12 Upper Nicola Okanagan Texts. In *Papers for the 47th Annual International Conference on Salish and Neighboring Languages*. UBCWPL vol 33. → pages 11, 12, 14, 129

- Lindley, L. and J. Lyon (2013). 12 more Upper Nicola Okanagan narratives. In *Papers for the 48th Annual International Conference on Salish and Neighboring Languages*, pp. 44–113. UBCWPL vol 35. → pages 11
- Link, G. (1983). The logical analysis of plural and mass terms: A lattice-theoretical approach. In R. Bauerle, C. Schwarze, and A. von Stechow (Eds.), *Meaning, use and interpretation of language*, pp. 302–323. Berlin: Mouton de Gruyter. → pages 129
- Longobardi, G. (1994). Proper names and the theory of N-movement in syntax and logical form. *Linguistic Inquiry* 25, 609–655. → pages ii, 4, 5, 45, 80, 88, 99, 118, 120, 216, 237, 350, 410
- Ludlow, P. and S. Neale (1991). Indefinite descriptions: In defence of Russell. *Linguistics and Philosophy* 14, 171–202. → pages 133
- Luo, C. (1997). Iconicity or Economy? Polysemy between demonstratives, copulas and contrastive focus markers. *Chicago Linguistic Society* 33, 273–286. → pages 408
- Lyon, J. (2010a). Nominal Modification in Upper Nicola Okanagan: A Working Paper. In *Papers for the 45th Annual International Conference on Salish and Neighboring Languages*, pp. 199–233. UBCWPL vol 27. → pages 78, 168, 176
- Lyon, J. (2010b). Okanagan Demonstratives and their Uses in Story. In *Papers for the 44th Annual International Conference on Salish and Neighboring Languages*, pp. 26–45. UBCWPL vol 27. → pages 330, 357, 364
- Lyon, J. (2011). Oblique Marked Relatives in Southern Interior Salish: Historical Implications for a Movement Analysis. In *Proceedings of the University of Victoria Workshop on the Syntax of Relative Clauses*, Number 2, pp. 29–68. Working Papers of the Linguistics Circle of the University of Victoria vol 21. → pages 210, 372
- Manzini, R. (1983). On control and control theory. *Linguistic Inquiry* 14, 421–446. → pages 233, 235
- Matthewson, L. (1998). *Determiner Systems and Quantificational Strategies: Evidence from Salish*. The Hague: Holland Academic Graphics. → pages ii, 17, 96, 99, 103, 110, 112, 113, 114, 118, 120, 123, 124, 125, 133, 147, 148, 150, 151, 216, 237, 238, 315, 326, 351, 354, 386, 395, 410

- Matthewson, L. (1999). On the interpretation of wide scope indefinites. *Natural Language Semantics* 7, 79–134. → pages 17, 122, 124, 129, 137, 138, 140, 148, 149, 354, 387
- Matthewson, L. (2001). Quantification and the Nature of Cross-Linguistic Variation. *Natural Language Semantics* 9, 145–189. → pages 17, 99, 140, 148, 153
- Matthewson, L. (2005). *When I Was Small - I Wan Kwikws: A Grammatical Analysis of St'át'imcets Oral Narratives*. Vancouver, BC: UBC Press. → pages 14, 333
- Matthewson, L. (2006a). Presuppositions and Cross-linguistic Variation. *Proceedings of the North East Linguistic Society (NELS)* 26. → pages 131, 308
- Matthewson, L. (2006b). Temporal semantics in a superficially tenseless language. *Linguistics and Philosophy* 29, 673–713. → pages 154, 229, 240
- Matthewson, L. (2008). Pronouns, Presuppositions, and Semantic Variation. In T. Friedman and S. Ito (Eds.), *Proceedings of SALT XVIII*, Ithaca, NY. → pages 127, 128, 130, 147, 149
- Matthewson, L. and H. Davis (1995). The structure of DP in St'át'imcets (Lillooet Salish). In *Papers for the 30th Annual International Conference on Salish and Neighboring Languages*, pp. 54–68. → pages 110, 112, 114, 222, 324, 326, 331, 356
- Mattina, A. (1973). *Colville Grammatical Structures*. Ph. D. thesis, University of Hawaii. → pages xii, 13, 15, 57, 85, 89, 104, 106, 123, 171
- Mattina, A. (1979). Pharyngeal Movement in Colville and Related Phenomena in the Interior Salishan languages. *International Journal of American Linguistics* 45, 17–24. → pages 58
- Mattina, A. (1982). The Colville-Okanagan Transitive System. *International Journal of American Linguistics* 48, 421–435. → pages 15, 58, 61
- Mattina, A. (1985). *The Golden Woman: The Colville Narrative of Peter J. Seymour*. Tucson, Arizona: University of Arizona Press. → pages 12, 15, 65, 173, 291, 292, 330, 342
- Mattina, A. (1987). *Colville-Okanagan Dictionary*. University of Montana Occasional Papers in Linguistics vol. 7. → pages 13, 15

- Mattina, A. (1993a). Okanagan Aspect: A Working Paper. In *Papers for the 28th Annual International Conference on Salish and Neighboring Languages*, pp. 233–263. → pages 15, 63, 70, 180
- Mattina, A. (1996a). Interior Salish to-be and intentional forms - a working paper. In *Papers for the 32nd Annual International Conference on Salish and Neighboring Languages*, pp. 239–248. → pages 154, 349
- Mattina, A. (2000). Okanagan sandhi & morphophonemics. In *Papers for the 35th Annual International Conference on Salish and Neighboring Languages*, pp. 147–158. UBCWPL vol 3. → pages 58, 65, 78, 81, 117, 354
- Mattina, A. (2001). Okanagan sentence types: A preliminary working paper. In L. Bar-el, L. T. Watt, and I. Wilson (Eds.), *Papers for the 36th Annual International Conference on Salish and Neighboring Languages*, pp. 215–236. UBCWPL vol 6. → pages ii, 2, 16, 66, 92, 220
- Mattina, A. (2004). The Okanagan Transitive Sentence Prototype. In *Papers for the 39th Annual International Conference on Salish and Neighboring Languages*. UBCWPL vol 14. → pages 67
- Mattina, A. (2008). How I Interlinearize "Invaluable Stories" and Other Texts. In *Papers for the 43rd Annual International Conference on Salish and Neighboring Languages*, pp. 135–150. UBCWPL vol 23. → pages 14
- Mattina, A. and M. DeSautel (2002). *Dora Noyes DeSautel łaʔ kłcaptíkʷł*. Missoula, MT: University of Montana Occasional Papers in Linguistics vol. 15. → pages 12, 13, 14, 50, 220, 355
- Mattina, N. (1993b). Some Lexical Properties of Colville-Okanagan Ditransitives. In *Papers for the 28th Annual International Conference on Salish and Neighboring Languages*, pp. 265–284. → pages 62, 92
- Mattina, N. (1994). Notes on Colville-Okanagan Word Order. In *Proceedings of the 10th Annual Northwest Linguistic Conference*, Burnaby, BC, pp. 93–102. Simon Fraser University. → pages 65, 66, 67, 68, 70, 168, 177
- Mattina, N. (1996b). *Aspect and Category in Okanagan Word Formation*. Ph. D. thesis, Simon Fraser University, Burnaby, BC. → pages 1, 2, 5, 15, 16, 58, 61, 62, 63, 64, 74, 75, 83, 84, 85, 89, 90, 92, 93, 94, 97, 162, 180, 220, 229, 237, 354

- Mattina, N. (2002). Notes on determiner phrases in Moses-Columbia Salish. In *Papers for the 37th Annual International Conference on Salish and Neighboring Languages*, Volume 9 of *University of British Columbia Working Papers in Linguistics*, pp. 261–286. UBCWPL. → pages 97, 127, 371
- Mattina, N. (2006). Determiner Phrases in Moses-Columbia Salish. *International Journal of American Linguistics* 72(1), 97–134. → pages 16, 110, 129, 133, 139, 151, 161, 208, 272, 354, 370, 371
- Menzies, S. (2012). The Okanagan Modal System. Master's thesis, University of British Columbia. → pages 154, 227
- Mikkelsen, L. (2005). *Copular Clauses: Specification, predication, and equation*, Volume 85 of *Linguistik Aktuell*. Amsterdam: John Benjamins. → pages 6, 25, 26, 29, 33, 40, 235, 242, 246, 247, 274, 275, 276, 284, 289, 290, 350, 351, 357, 413, 414, 415
- Mikkelsen, L. (2011). Copular Clauses (chapter 68). In K. von Stechow, C. Maienborn, and P. Portner (Eds.), *Semantics*, pp. 1805–1829. Berlin: Mouton de Gruyter. → pages xii, 20, 27, 28, 40, 419
- Milsark, G. (1977). Toward an Explanation of Certain Peculiarities of the Existential Construction in English. *Linguistic Analysis* 3, 1–29. → pages 150
- Montler, T. (1993). Attributive Constructions in Saanich. In A. Mattina and T. Montler (Eds.), *American Indian Linguistics and Ethnography in Honor of Laurence C. Thompson*, Missoula, MT. University of Montana Occasional Papers in Linguistics vol. 10. → pages 65, 81, 168, 175, 199, 207, 398
- Moro, A. (1995). Small Clauses with Predicative Nominals. In A. Cardinaletti and M. T. Guasti (Eds.), *Syntax and semantics, vol. 28: Small Clauses*, pp. 109–132. New York: Academic Press. → pages 36, 38, 39
- Moro, A. (1997). *The raising of predicates: Predicative noun phrases and the theory of clause structure*. Cambridge: Cambridge University Press. → pages 6, 28, 29, 30, 33, 34, 35, 36, 37, 45, 216, 226, 236, 240, 241, 287, 350, 410, 413
- Moro, A. (2000). *Dynamic Antisymmetry*. Cambridge, MA: MIT Press. → pages 22, 233
- Ogihara, T. (1987). Obligatory Focus in Japanese and Type-Shifting Principles. In M. Crowhurst (Ed.), *WCCFL 6*, pp. 213–227. Stanford Linguistics Association. → pages 268

- Partee, B. H. (1986). Ambiguous Pseudoclefts with Unambiguous *Be*. In S. Berman, J.-W. Choe, and J. McDonough (Eds.), *Proceedings of NELS XVI*, Amherst, MA. University of Massachusetts, Amherst. → pages 20, 22, 24, 25, 27, 235, 239, 263
- Partee, B. H. (1987). Noun Phrase Interpretation and Type-shifting Principles. In J. Groenendijk, D. de Jongh, and M. Stokhof (Eds.), *Studies in Discourse Representation Theory and the Theory of Generalized Quantifiers*, Dordrecht. Foris. → pages 31, 32, 40, 44
- Partee, B. H. (2010). Specificational Copular Sentences in Russian and English. *Oslo Studies in Language* 2(1), 25–49. → pages 284
- Pattison, L. (1978). Douglas Lake Okanagan: Phonology and Morphology. Master's thesis, University of British Columbia, Vancouver, BC. → pages 15, 58
- Percus, O. (1997). Prying open the cleft. In *Proceedings of the 27th Annual Meeting of the North Eastern Linguistic Society*, pp. 337–351. Graduate Linguistic Student Association, University of Massachusetts, Amherst. → pages iii, 21, 31, 47, 50, 51, 52, 53, 54, 55, 293, 296, 304, 306, 337, 338, 339, 343, 350, 353, 385, 386, 387, 409, 418
- Pereltsvaig, A. (2001). *On the Nature of Intra-clausal Relations: A Study of Copular Sentences in Russian and Italian*. Ph. D. thesis, McGill University, Montreal. → pages 37, 38
- Pierrehumbert, J. (1980). *The Phonology and Phonetics of English Intonation*. Ph. D. thesis, Massachusetts Institute of Technology. → pages 267
- Postal, P. (1966). On So-Called “Pronouns” in English. In F. Dinneen (Ed.), *Report on the Seventeenth Annual Round Table Meeting on Linguistics and Languages Studies*, pp. 177–206. Washington, DC: Georgetown University Press. → pages 409
- Prince, E. (1978). A comparison of wh-clefts and it-clefts in discourse. *Language* 54, 883–906. → pages 43
- Reeve, M. (2007). Relatives and pronouns in the English cleft construction. *UCL Working Papers in Linguistics* 19, 157–182. → pages 20, 50, 51, 337
- Reeve, M. (2011). The syntactic structure of English clefts. *Lingua* 121, 142–171. → pages 301



- Reichard, G. A. (1947). *An Analysis of Coeur d'Alene Indian Myths*. The American Folklore Society Memoirs, vol 41. Philadelphia: American Folklore Society. → pages 367
- Reinhart, T. (1995). Interface strategies. OTS Working Papers in Linguistics. Utrecht University. → pages 48
- Reinhart, T. (1997). Quantifier Scope: How Labor is Divided Between QR and Choice Functions. *Linguistics and Philosophy* 20, 335–397. → pages 122, 123, 140, 158, 387
- Rochemont, M. (1986). *Focus in generative grammar*. Amsterdam: John Benjamins. → pages 6, 48, 51, 301
- Romero, M. (2005). Concealed Questions and Specificational Subjects. *Linguistics and Philosophy* 28, 687–737. → pages ii, 18, 21, 35, 44, 45, 155, 216, 218, 248, 262, 263, 264, 287, 349, 351, 355, 410, 413
- Rooth, M. (1985). *Association with focus*. Ph. D. thesis, University of Massachusetts, Amherst. → pages 21, 45, 46, 292
- Rooth, M. (1992). A theory of focus interpretation. *Natural Language Semantics* 1, 75–116. → pages 21, 45, 46, 216, 218, 287, 292, 398, 407, 410
- Rothstein, S. (1995). Small Clauses and Copular Constructions. In A. Cardinaletti and M. T. Guasti (Eds.), *Syntax and Semantics*, Volume 28, pp. 27–48. New York: Academic Press. → pages 36, 235
- Rullmann, H. (1995). *Maximality in the Semantics of Wh-Constructions*. Ph. D. thesis, University of Massachusetts, Amherst. → pages 124
- Schachter, P. (1973). Focus and relativization. *Language* 49, 19–46. → pages 51
- Schlenker, P. (2003). Clausal equations (a note on the connectivity problem). *Natural Language and Linguistic Theory* 21, 157–214. → pages 40
- Selkirk, E. (1995). Sentence prosody: Intonation, stress and phrasing. In J. Goldsmith (Ed.), *The Handbook of Phonological Theory*, pp. 550–569. Cambridge, MA: Blackwell Publishing. → pages 45, 46, 47, 48, 222, 313
- Selkirk, E. (2007). Contrastive focus, givenness, and the unmarked status of “discourse new”. In C. Féry, G. Fanselow, and M. Krifka (Eds.), *The Notions of Information Structure*, Interdisciplinary Studies on Information Structure, pp. 125–146. Potsdam: Universitätsverlag Potsdam. → pages 48

- Selkirk, E. and A. Kratzer (2007). Phase theory and prosodie spellout: The case of verbs. *The Linguistic Review* 2-3, 93–135. → pages 48, 49
- Shank, S. (2003). A preliminary semantics for pronominal predicates. In J. Brown and M. Kalmar (Eds.), *Papers for the 38th Annual International Conference on Salish and Neighboring Languages*, pp. 215–236. UBCWPL vol 11. → pages 54, 332, 333, 353, 373, 376, 385, 386, 397, 398, 407, 408
- Sharvit, Y. (1999). Connectivity in specificational sentences. *Natural Language Semantics* 7, 299–339. → pages 40
- Stowell, T. (1981). *Origins of Phrase Structure*. Ph. D. thesis, Massachusetts Institute of Technology. → pages 36, 37, 38, 217, 233
- Szabolcsi, A. (1981). The Semantics of Topic-Focus Articulation. In J. Groenendijk (Ed.), *Formal methods in the study of language*. University of Amsterdam. → pages 48
- Thoma, S. (2007). The Categorical Status of St’át’imcets Independent Pronouns. Qualifying Paper, University of British Columbia. → pages 305, 394, 399
- Thompson, L. and T. Thompson (1992). *The Thompson Language*. Missoula, MT: University of Montana Occasional Papers in Linguistics vol. 8. → pages 162, 386
- Vallduví, E. (1992). *The informational component*. New York: Garland. → pages 43
- van Eijk, J. P. (1997). *The Lillooet Language: Phonology, Morphology, Syntax*. Vancouver, BC: UBC Press. → pages 13, 17, 118, 120, 123
- van Eijk, J. P. and L. Williams (1981). *Lillooet Legends and Stories*. Mount Currie, BC: Ts’zil Publishing House. → pages 331
- Van Geenhoven, V. (1998). *Semantic incorporation and indefinite descriptions*. Stanford, CA: CSLI Publications. → pages 85, 90, 122, 124, 136, 156, 162, 163, 166
- von Stechow, A. (1990). Focusing and backgrounding operators. In W. Abraham (Ed.), *Discourse Particles*, pp. 37–84. Amsterdam: John Benjamins. → pages 43
- Watkins, D. (1970). *A description of the phonemes and position classes in the morphology of Head of the Lake Okanagan (Salish)*. Ph. D. thesis, University of Alberta, Edmonton, AB. → pages 15, 57

- Werle, A. (2000). Semantic incorporation in Lillooet. In *Papers for the 35th Annual International Conference on Salish and Neighboring Languages*, pp. 219–226. UBCWPL vol 3. → pages 163, 164
- Willett, M. L. (2003). *A Grammatical Sketch of Nxa'amxcin (Moses-Columbia Salish)*. Ph. D. thesis, University of Victoria, Victoria, BC. → pages 16, 104, 208, 371, 372, 373
- Williams, E. (1975). Small clauses in English. In J. Kimball (Ed.), *Syntax and Semantics*, Volume 4, pp. 249–273. New York: Academic Press. → pages 233
- Williams, E. (1983). Against Small Clauses. *Linguistic Inquiry* 14, 287–308. → pages 24, 36
- Wiltschko, M. (2005). Expletive categorical information. A case study of number marking in Halkomelem. In L. Bateman and C. Ussery (Eds.), *Proceedings of the North East Linguistic Society (NELS) 35*, pp. 631–646. Amherst, MA: Graduate Linguistic Student Association, University of Massachusetts, Amherst. → pages 235
- Wirth, J. (1978). The derivation of cleft sentences in English. *Glossa* 121, 58–81. → pages 51
- Zamparelli, R. (1995). *Layers in the Determiner Phrase*. Ph. D. thesis, University of Rochester, New York. → pages 99