

SUBJECT AND TOPIC IN ST'ÁT'IMCETS (LILLOOET SALISH)

by

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## Abstract

The goal of this thesis is twofold: first, to describe some of the symmetric and asymmetric behaviours of transitive and intransitive subjects in St'át'imcets, a Northern Interior Salish language spoken in southwest mainland British Columbia; second, to consider how the Principles and Parameters framework (Chomsky 1981; 1982; 1986; 1992; etc.) can explain the asymmetries. Although many Salish languages are known to display ergativity in their third-person subject inflection, the extent to which these languages are syntactically ergative is not well documented—perhaps because their accusativity has been more salient. The question has not been investigated for St'át'imcets, and this thesis shows that there is at least one aspect of St'át'imcets syntax—relativization—that appears to be ergative. Evidence of ergativity in coreference across conjuncts in St'át'imcets is not as clear, though; rather, coreference is restricted by a rule of one-nominal interpretation (Gerds 1988) and a constraint on parallelism of discourse functions (Matthewson 1993a), both of which are shown in this thesis to derive from more general constraints on discourse. Unifying the explanations for the various asymmetries is the idea—independently motivated and proposed to account for facts in other languages—that NPs that are topics are structurally higher than NPs that are focused.

Salish languages are often presented as though they were radically different from other languages, but with respect to the complex and subtle data examined in this thesis, St'át'imcets resembles other known linguistic systems. Most of the data are from original fieldwork, and they will be useful in the kind of comparative Northern Interior Salish research begun by Davis et al. (1993), Gardiner et al. (1993), and Matthewson et al. (1993). Syntactic pivots have not been investigated in the other NIS languages, and so establishing the ways in which Nla'kapmxcín (Thompson) and Secwepemetsín (Shuswap) differ from St'át'imcets will ideally help to explain the nature of parametric variation in syntax.

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## Symbols and Abbreviations

*	ungrammatical	oblig	obligation, expectancy
?	1. marginally grammatical; 2. grammaticality varies	ONO	one-nominal interpretation law (23, 94, 120)
(x)	<i>x</i> is optional	ooc	out of control
(*x)	ungrammatical if <i>x</i> is present	part	particle: 'well, but, so'
*(x)	ungrammatical if <i>x</i> is absent	pass	passive
{x/y}	either <i>x</i> or <i>y</i> , but not both	PC	parallelism constraint on discourse functions (87, 128)
-	morpheme boundary	pl	plural
1, 2, 3	first, second, third person	poss	possessive
A	subject of transitive	pred	predicate
abs	absolutive	presupp	presupposed knowledge
acc	accusative	prog	progressive
adhort	adhortative	quot	quotative
anti	antithesis	RC	relative clause
appl	applicative	recip	reciprocal
comp	complementizer	red	redirective
conj	1. conjunction; 2. conjunctive inflection	S	1. subject of intransitive; 2. sentence constituent
cons	consequential	sg	singular
def	definite	su	subject (indicative)
deic	deictic	TO	topical object marker (- <i>tali</i> )
det	determiner	tr	transitive
emp	emphatic pronoun		
emph	emphasis		
erg	ergative		
evid	evidential	Consultants	
F	Fountain dialect	AA	Alice Adolph
foc	focus	BF	Beverley Frank
fut	remote future, possibility	DU	Dorothy Ursaki (Nla'kapmxcín)
GF	grammatical function	GN	Gertrude Ned
hyp	hypothetical	LT	Laura Thevarge
incip	incipient	RW	Rose Whitley
ind	indirective		
indic	indicative		
interrog	interrogative		
intr	intransitive		
M	Mount Currie dialect		
NIS	Northern Interior Salish		
nom	nominalizer		
now	demarcation of time		
NP	noun phrase		
O	direct object		
obj	object		
obl	oblique		

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## Chapter 1

### Introduction

#### 1.1. Goals and outline of thesis

The goal of this thesis is twofold: first, to describe some of the symmetric and asymmetric behaviours of transitive and intransitive subjects in St'át'imcets, a Northern Interior Salish language; second, to consider how the Principles and Parameters framework (Chomsky 1981; 1982; 1986; 1992; etc.) can explain the asymmetries. Although many Salish languages are known to display ergativity in their third-person subject inflection, the extent to which these languages are syntactically ergative is not well documented—perhaps because their accusativity has been more salient. The question has not been investigated for St'át'imcets, and this thesis shows that there is at least one aspect of St'át'imcets syntax—relativization—that appears to be ergative. Evidence of ergativity in coreference across conjuncts in St'át'imcets is not as clear, though; rather, coreference is restricted by a rule of one-nominal interpretation (Gerds 1988) and a constraint on parallelism of discourse functions (Matthewson 1993a), both of which are shown in this thesis to derive from more general constraints on discourse. Salish languages are often presented as though they were radically different from other languages, but with respect to the complex and subtle data examined in this thesis, St'át'imcets resembles other known linguistic systems.

The results of this study have broader implications. Understanding the St'át'imcets pivots for relativization and coordination will shed light on discourse binding (Matthewson 1993; in prep.) and St'át'imcets grammatical relations generally. Once the pivots for these language-particular processes have been ascertained, they will help to explain, for example, to what extent the topical object marker *-tali* alters the grammatical relations of arguments. Given that *-tali* appears only in certain ergative-centered relative clauses, its function may be to antipassivize the predicate, deriving an S from an underlying A in order to satisfy the ergative pivot for relativization. Similar questions arise concerning the passive suffix *-em*. The effects of these affixes have remained unclear precisely because it has not been determined

what syntactic requirements they are feeding; hypotheses concerning their functions may be tested once the pivots in St'át'imcets have been established.

Moreover, most of the data in this thesis are from original fieldwork, and they will be useful in the kind of comparative Northern Interior Salish research begun by Davis et al. (1993), Gardiner et al. (1993), and Matthewson et al. (1993). Syntactic pivots have not been investigated in the other NIS languages, and so establishing the ways in which Nla'kapmxcín (Thompson) and Secwepemcetsín (Shuswap) differ from St'át'imcets will ideally help to explain the nature of parametric variation in syntax.

The thesis is organized as follows. Chapter 1 is the introduction. Chapter 2 examines relativization and concludes that it is morphologically (if not also syntactically) ergative. Coreference across conjuncts, on the other hand—the topic of chapter 3—will be seen to be neither ergative nor accusative; rather, it is most strongly constrained by a rule of one-nominal interpretation and a requirement that arguments of transitive predicates share the same discourse function across conjoined clauses. Chapters 2 and 3 are largely descriptive, and the conclusion of each chapter is that St'át'imcets is not typologically unusual in any respect. Because this point is seldom made, and because much effort has been expended in collecting the facts necessary to prove it, the presentation of data in these chapters is fairly detailed. Chapter 4 proposes structural analyses of the data in the preceding chapters, repeating the generalizations and some of the data that illustrate them. The thesis is therefore organized in such a way that it should be accessible to readers whose interests lie mainly in Salish language data, and also to readers interested primarily in syntactic theory. Readers of the latter category who skip directly to chapter 4 should bear in mind that the data presented there have necessarily been idealized, and that the preceding chapters may be consulted if information about the variation across speakers and across elicitation sessions is desired. Finally, there are four appendices that offer grammatical paradigms, a key to the orthography, biographies of the language consultants, and a table of the elicitation sessions.

The next subsection of this introductory chapter briefly introduces the problems that languages displaying ergativity have posed for some theories of syntax, and the following

subsection outlines the morphosyntax of St'át'imcets. The chapter concludes with an explanation of the data and methodology that were used in preparing the thesis.

## 1.2. Grammatical relations and ergativity

The grammatical relations of transitive subject, intransitive subject, and direct object, are the principal concern of this thesis. Following Dixon (1979), they are henceforth abbreviated as A (transitive subject), S (intransitive subject), and O (direct object). The abbreviation A for transitive subject is best regarded as mnemonic for 'agent', since transitive subjects are typically agentive. The GFs frequently pattern together in systems that are called 'accusative' and 'ergative'; the relevant groupings of these relations are schematized below:

(1)	<u>Accusative</u>	<u>Ergative</u>								
	<table border="1"> <tr> <td>A</td> <td>nominative</td> </tr> <tr> <td>S</td> <td></td> </tr> </table>	A	nominative	S		<table border="1"> <tr> <td>A</td> <td>ergative</td> </tr> <tr> <td>S</td> <td>absolutive</td> </tr> </table>	A	ergative	S	absolutive
A	nominative									
S										
A	ergative									
S	absolutive									
	O accusative	O								

Processes that do not systematically group A, S, and O are called 'neither accusative nor ergative'.

Ergative languages have long posed a problem for theories that identify a category 'subject' for the grouping {A,S}, one of the major difficulties being how to explain the method of case-assignment. For example, English can be seen to have accusative morphology in its pronoun system (*I/me, he/him*, etc.) as well as in syntactic properties that group the A and S roles into a single category 'subject'. An example of the latter is the so-called *that*-trace effect: embedded subjects (i.e., A and S) may not be questioned if the complementizer *that* is present (2a,b). This restriction does not hold of O, however, as (2c) indicates. Note that all of the examples in (2) are grammatical if *that* is absent.

- (2)
- a. who<sub>i</sub> do you think (\*that) t<sub>i</sub> likes Fred? (A)
  - b. who<sub>i</sub> do you think (\*that) t<sub>i</sub> is dying? (S)
  - c. who<sub>i</sub> do you think (that) Fred likes t<sub>i</sub>? (O)

The correlation between morphological case-marking (nominative/accusative) and grammatical relations (subject/object) in languages like English has been taken to support the idea that nominative case is assigned from a unique case-assigner (tensed Infl) to a unique structural position (specifier of IP). Ergative languages pose a problem for this theory of case-assignment. Anderson (1976), for example, claims that subjecthood is best defined not by morphological categories like case inflection and verb agreement, but by syntactic properties like control, raising, reflexive, and coordination. He shows that many languages that are morphologically ergative are in fact syntactically accusative, since they treat {A,S} in opposition to O with respect to these syntactic properties—thus supporting his claim that {A,S} forms a universal category of 'subject', whether it is defined as a primitive, as it is in Relational Grammar, or structurally, as it is in the Principles and Parameters framework. The fact that languages can have ergative morphology but accusative syntax challenges theories that assume a structural correlation between case and grammatical functions. For some recent approaches to these issues, see Murasugi (1992) and Campana (1992) and the references there.

Dixon (1979) refines Anderson's (1976) observations by arguing that the notion of 'pivot' is needed in addition to Anderson's notion of subject {A,S}. While agreeing that certain syntactic constructions like imperatives and jussives universally refer to a 'deep subject' that comprises {A,S}, Dixon shows that other processes like coordination and subordination may have either accusative or ergative properties, as determined on a language-particular basis. Languages like English that are thoroughly accusative happen to have their pivots defined on the same set as the 'deep subject' {A,S}, but other languages select an ergative {S,O} pivot for some aspects of their syntax. St'át'imcets may be a language of the latter category. Chapter 2 will show that an ergative pivot is at work in St'át'imcets relativization (as it is in many languages), and this presents a problem for a theory of relativization that assumes a notion of subject that is defined on {A,S}, e.g., Keenan and Comrie (1977: 80 ff.).

### 1.3. Outline of St'át'imcets

St'át'imcets is spoken in southwest mainland British Columbia, in an area 160-300 kilometers north-northeast of Vancouver. A grammatical sketch of the language is given in §1.3.1, and some differences between the Mount Currie and Fountain dialects are noted in §1.3.2.

#### 1.3.1. Morphosyntax

This section introduces some morphosyntactic characteristics of St'át'imcets that will be relevant for considering the kind of data to be presented in the thesis. Data are presented in the orthography that is used in van Eijk (1981, 1983) and Peters et al. (1992), with the exception of additional hyphens (-), which indicate morpheme boundaries. A key to the orthography is in appendix B. Right-aligned below each form cited in the thesis are the speakers' initials and the token number(s) in the database, or other information identifying the source (see §1.4). Appendix A provides pronominal paradigms and some other grammatical information, but van Eijk (1985) should be consulted for a fuller description of St'át'imcets. For an overview of the Salish language family, see Thompson (1979).

St'át'imcets is a so-called radical head-marking language, since subject and object arguments are marked by obligatory pronominal affixes on the predicate (Davis 1993b: §2). Overt NPs are optional, as the following example shows:

- (3)    tsún-tsi-lhkan  
         *tell-2sg.obj-1sg.su*  
         'I told you'

(AA, LT 2296; van Eijk 1985: 174)

When overt nominals appear in addition to pronominal affixes, word order is fairly rigidly predicate-initial; specifically, VOS order (verb-object-subject) is preferred in elicitation by many speakers, while in texts VSO order appears about four times more frequently than VOS (van Eijk 1985: 268 n. 5). VOS order is exemplified below:

- (4)    tsuw'-n-ás            ti    sqáycw-a            ti    k'ét'h-a  
       *kick-tr-3sg.conj    det man-det            det rock-det*  
       'the rock kicked the man'  
       \*'the man kicked the rock'

(AA 2223; LT 2324)

Some speakers are not as strict as others in their post-predicate word order, although they still prefer VOS over VSO order:

- (5)    áts'x-en-as    ta            sqáycw-a            ta            smúlhats-a  
       *see-tr-3erg    det    man-det            det    woman-det*  
       'the woman saw the man' (preferred)  
       'the man saw the woman' (also possible)

(RW 48; Matthewson 1993a: 2-3)

For another example of this variation in basic word order between speakers, see (111) in chapter 3 (p. 54).

VSO order may be obtained if the predicate has restrictions concerning the animacy of its arguments. Consider the following example:

- (6)    (tsicw) áts'x-en-as    ti    syáqts7-a            i            tsítcw-a<sup>1</sup>  
       *go            see-tr-3erg    det woman-det            pl.det house-det*  
       'the woman saw the houses'

(AA 2229; LT 2326)

Here, *áts'x-en* 'to see (tr)' requires an animate experiencer as subject, and because this sentence has only one such NP (*ti syáqts7a* 'the woman'), it may precede the inanimate object. When the sentence has two animate NPs, however, VSO order is not allowed, as the following example illustrates:

- (7)    \*ats'x-en-ítas            i            ucwalmícw-a            ti    syáqts7-a  
       *see-tr-3pl.su    pl.det people-det            det woman-det*  
       'the people saw the woman'

(AA 2230)

---

<sup>1</sup> The initial auxiliary *tsicw* 'go' was given only by LT, not by AA.

Nominals may not precede the predicate unless introduced by the focus particle *nilh*, as shown in (8-9).<sup>2</sup> The asterisk (\*) outside of the parentheses surrounding *nilh* indicates that the entire sentence is ungrammatical if *nilh* is absent:

- (8) \*(nilh)      ti    syáqts7-a      ts'um'-qs-án'-as      ti    sqáycw-a  
               foc        det woman-det    lick-nose-tr-3erg    det man-det  
               'it was the woman that kissed the man'

(AA 2217)

- (9) \*(nilh)      ti    sqáycw-a      qwatsáts  
               foc        det man-det      leave  
               'the man left'

(AA, LT 2214)

Emphatic pronouns, however, may behave predicatively and appear sentence-initially without the focus marker. For examples, see the footnotes pertaining to (46) and (47c) in chapter 2 (p. 24). This property is apparently common to Salish languages, and Kinkade (1983: 28) has taken it as evidence against a noun/verb distinction; see van Eijk and Hess (1986) for a different perspective.

Nominals usually appear with what may be regarded as a discontinuous determiner, in that the first element of an NP is preceded by an article that encodes such categories as singular and plural, and followed by an enclitic *-a*. Examples of both singular *ta* and plural *i* appear above in (6). The enclitic *-a* is dropped if the progressive auxiliary *wa7* intervenes between the article and the nominal; for examples, compare sentences (52-53) to (51) in chapter 2 (p. 26), and see also the footnote in chapter 3 giving AA's version of sentence (86) (p. 43). It can also be dropped in order to express other, as yet elusive, semantic contrasts. There is phonological variation in the singular article, as can be seen by comparing (4) and (5) above. According to van Eijk (1985: 223), *ti* and *ta* are characteristic of the Mount Currie and Fountain dialects respectively, but they seem simply to be in free variation for the consultants of this thesis, who can even use *ti* and *ta* as articles for different NPs within a single sentence.

---

<sup>2</sup> Some speakers, notably BF and Desmond Peters, permit SVO order. A possible explanation for this innovation is that these speakers have been in extensive contact with speakers of Secwepemctsin (Davis 1993b: §3.1 n. 5), a language that allows nominals to precede the predicate (Gardiner 1993; Gardiner et al. 1993).

This is exemplified below for two speakers, who volunteered these sentences as translations for the English glosses indicated:

- (10) áts'x-en-lhkan i tsuw'-n-ás ta máw-a ti smúlhats-a  
*see-tr-1sg.su when.past kick-tr-3sg.conj det cat-det det woman-det*  
 'I saw when the woman kicked the cat'

(RW 1629)

- (11) áts'x-en-lhkan ti smúlhats-a tsuw'-n-ás ta máw-a  
*see-tr-1sg.su det woman-det kick-tr-sg.conj det cat-det*  
 'I saw the woman kick the cat'

(GN 1630)

The vowel of the singular determiner can also be rounded if it precedes a word having an initial labial consonant; for an example, see (66) in chapter 2 (p. 32). Also see §1.3.2 below for more information about the differences between Mount Currie and Fountain speech.

The indicative paradigm (called 'plain' by Kroeber 1991), from which the main clause person markers are drawn, is said to be morphologically 'split-ergative'. The 3sg subject of a transitive predicate in a main clause is marked on the predicate by the ergative suffix *-as*, as shown in (12). Direct objects and subjects of intransitive predicates, however, do not induce overt agreement on the predicate, as indicated in (12) and (13) by absolutive *-Ø* (examples (12-13, 15-17) are adapted from van Eijk 1985: 172, 174):

- (12) tsún-Ø-as  
*tell (trans)-3sg.abs-3sg.erg*  
 'she told him'

(LT 2425)

- (13) tsut-Ø  
*say (intr)-3sg.abs*  
 'she said'

(LT 2426)

The null symbol *-Ø* is omitted from cited examples, as in (4-9) above, unless clarity requires it. In addition to displaying ergativity in its morphology, St'át'imcets appears to display syntactic ergativity in relativization, as chapter 2 will show.

In main clauses, non-third-person subject markers usually cliticize to the first pre-predicate auxiliary if one is present. Compare the position of the 1sg subject *-lhkan* in (3) and (14) in this respect, where *tsukw* 'finish' in (14) is the main predicate, and would otherwise host the subject marker *-lhkan* if no auxiliary were present:

- (14) húy' lhkan ka7lh tsukw  
*incip 1sg.su for.while finish*  
 'I am going to quit for a while'

(AA, LT 2297; van Eijk 1985: 265; 1987: 163)

Non-third persons are inflected on a nominative/accusative pattern, since transitive and intransitive subjects are inflected alike, in opposition to direct objects:

- (15) tsun-ts-kál'ap  
*tell-1sg.acc-2pl.nominative*  
 'you guys told me'

(LT 2427)

- (16) tsút-kal'ap  
*say-2pl.nominative*  
 'you guys said'

(LT 2428)

- (17) tsút-kan  
*say-1sg.nominative*  
 'I said'

(LT 2429)

Note that 2pl above is marked by the same suffix (*-kal'ap*) when it is either a transitive subject (15) or an intransitive subject (16). Direct objects, however, are marked differently from subjects of intransitive; the 1sg direct object in (15) is indicated by the affix *-ts*, while the 1sg intransitive subject in (17) is marked by *-kan*.

Given that NPs do not show overt case, when a single overt nominal appears in a sentence with a transitive predicate that bears third-person subject and object affixes, it might be expected to be ambiguous as to whether it is the subject or object. In such cases, however, there is a strong tendency for the overt nominal to be interpreted as the object rather than as the subject, as the glosses for the following sentences indicate:

- (18) wa7 k'al'em-mín-as ta {smúlhats-a/syáqts7-a}  
*prog wait-appl-3erg det woman-det*  
 'he is waiting for the woman'  
 \*'the woman is waiting for him'

(AA, GN 1312; LT 2329)

- (19) (wa7) qvl-mín-as ti syáqts7-a  
*prog bad-appl-3erg det woman-det*  
 'he doesn't like the woman'  
 \*'the woman doesn't like him'

(AA 2233; cf. GN 1313; LT 2331)

In order for a sentence to be interpreted as having an overt NP subject and a null 3sg pronominal object, the sentence is passivized, as shown in (20-21). Another example is the passive in (22), which was volunteered as a form having the overt NP as subject, and it corresponds to the non-passive in (18) above.

- (20) áts'x-en-as ta sqáycw-a  
*see-tr-3erg det man-det*  
 'he saw the man'

(AA, BF, GN, LT, RW 29)

- (21) áts'x-en-em l ta sqáycw-a  
*see-tr-pass obl det man-det*  
 'he was seen by the man'

(BF, GN, RW 28)

- (22) nilh t'u7 s-e-s k'al'-em-mín-em ti syáqts7-a  
*foc part nom-prog-3sg.poss wait-intr-appl-pass det woman-det*  
 'he is being waited for by the woman'

(LT 2330)

The same restriction has been observed in Halkomelem, a Coast Salish language, and it has come to be known as the 'one-nominal interpretation law' (Gerds 1988: 59):

- (23) One-Nominal Interpretation Law (ONO)

In the absence of marking for other persons, a single 3rd person nominal is interpreted as the absolutive.

The rule of one-nominal interpretation will be seen in chapter 3 (pp. 47 ff.) to be a fairly strong constraint in St'át'imcets. Its effects can also be observed in the two other NIS languages, Nla'kapmxcín (Thompson and Thompson 1992: 145, 148) and Secwepemcetsín (Gardiner 1993: 214-219, §4.3.1).

Pronominal markers in the subjunctive paradigm (called 'conjunctive' by Kroeber 1991) are similar in form to the plain clitics, except that they lack the *-(lh)k-* indicative marker. Conjunctive inflection is used mainly for adverbial clauses and interrogative complements, as well as for transitive complements of negation (*cw7aoz* 'not'), and in other nominalized environments. Adverbial clauses are introduced by the complementizers *lh* 'hypothetical' or *i* 'when.past'. Examples follow:

- (24) saw-en-tsál-itas                    [ *lh*    swan'ulh-ás    ni7    qmut ]  
*ask-tr-1sg.obj-3pl.subj*    *hyp*    *whose-3sg.conj*    *deic*    *hat*  
 'they asked me whose hat that was'

(AA, LT 2299; van Eijk 1985: 272)

- (25) láni7    [ *i*                    t'íq-as                    ]  
*then*    *when.past*    *come-3sg.conj*  
 'it is then that he came'

(LT 2431; van Eijk 1985: 272)

Relative clauses usually receive conjunctive inflection, although some speakers will accept plain (main clause) inflection in them; see sentence (49) in chapter 2 (p. 25).

Finally, factual inflection (called 'nominalized' by Kroeber 1991) appears in non-initial conjuncts introduced by *nilh* 'then; so, then', many examples of which appear in chapter 3. The predicate is preceded by the nominalizer *s-*, intransitive subjects are marked by possessive affixes, and transitive subjects are marked by conjunctive affixes. Nominalization also appears in complement clauses that are introduced by the complementizer *kw*, which is glossed *det(erminer)* because of its formal similarity to the indefinite determiners. This general use of the indefinite determiner as a complementizer in St'át'imcets resembles the Coast Salish pattern, and differs from Nla'kapmxcín and Secwepemcetsín, which choose definite and

indefinite determiners as complementizers according to the semantics of the matrix predicate (Kroeber 1991: 135). A complement clause in St'át'imcets is exemplified below:

- (26) wa7 lhkan zewát-en [ kw s-t'iq-s ]  
 prog 1sg.su know-tr det nom-come-3sg.poss  
 'I know that he came'

(AA, LT 2300; van Eijk 1985: 270)

The characteristics of these clause-types are summarized in the table in (27). See Kroeber (1991: 165) for a similar chart (but without introductory particles) for the Salish family.

- (27) Inflection of clause types in St'át'imcets

Clause type	Inflection	Introductory particle
main	plain	none
adverbial, interrogative, negation	conjunctive	<i>lh</i> 'hypothetical' <i>i</i> 'when.past' <i>cw7aoz</i> 'not'
complement; non-initial conjunct	nominalized	<i>kw</i> ; <i>nilh</i> 'then; so, then'

The facts outlined above represent the core of St'át'imcets grammar. Naturally, there is slight variation across speakers, the regional aspect of which is discussed in the next section.

Concerning phonology, stress often shifts as affixes are added, and determiners sometimes appear to trigger metathesis in the roots to which they attach. There is also an alternation between *-lhk/-k* as the indicative marker for non-third-person subjects, which for brevity is usually not glossed as a separate morpheme, but is treated as part of the rest of the subject affix. This morpheme appears as *-lhk* usually after vowels and resonants, and as *-k* elsewhere; note the alternation for the 1sg subject marker in (28-29) below, for example. These alternations are irrelevant to the thesis, and so nothing will be said concerning them; they should be small enough not to be distracting, and van Eijk (1985: 20-24, 32, 169) can be consulted for more information if desired.

### 1.3.2. Regional variation

Two dialects of St'át'imcets are recognized by van Eijk (1985): the Fountain dialect, which is associated with the communities surrounding Sat'átqwa7 (Fraser River) near Sat' (Lillooet), and the Mount Currie dialect, which is associated with the vicinity of Lil'wat7úl (Mount Currie, near Pemberton). The two groups are separated by the Lillooet mountain range, but are connected by about 100 kilometers of waterway and, today, by road. The dialects are mutually intelligible, the primary differences being a few lexical items, most of which are recognized by the consultants of this thesis. Such variation is exemplified by the words *smúlhats* (F) and *syáqtsa7* (M) 'woman', as in (18) above. There is also a phonological difference in the retraction of vowels that does not bear on the data here (van Eijk 1985: 8; 1987: 5). A small difference—not noted by van Eijk (1987: 212)—has emerged concerning the retraction of consonants: the lexical suffix *-ts* [č] 'mouth; language' in *qvlqvl-ts'-mín'* [qʌʔ-qʌʔ-c'-mín'] 'to swear at (tr)' is retracted and glottalized only for Mount Currie speakers. Fountain speakers do not retract or glottalize the *-ts*, as example (85) in chapter 3 shows (and other sentences starting at p. 43).

Apparently there is a syntactic difference between the Fountain and Mount Currie dialects. Although certain pronominal markers are second-position clitics, as noted on page 9 with respect to (14), Mount Currie speakers allow the person marker to appear sentence-initially:

- (28) kan      xát'-min'    ku   kál'wat  
       *Isg.su   want-appl   det   medicine*  
       'I want some medicine'

(AA, 17 November 1993, UBC Field Methods, token 150;  
 LT 2432)

These structures are analyzed by van Eijk (1987: 18) as having a pre-predicate auxiliary—progressive *wa7*—which is dropped (presumably) phonologically. The structure underlying (28) would therefore be:

- (29) wa7 lhkan xát'-min' ku kál'wat  
*prog 1sg.su want-appl det medicine*  
 'I want some medicine'

(LT 2433)

This analysis may not be correct, however, as one example of a fronted subject marker co-occurring with progressive *wa7* has been volunteered:

- (30) kan t'u7 wa7 s-tálh-lec  
*1sg.su part prog nom-upright-body*  
 'I am standing'

(AA, LT, 6 April 1994, UBC Field Methods, token 374;  
 LT 2434)

Moreover, clitics may appear pre-predicatively in other Interior Salish languages (e.g., Columbian), suggesting that (28) represents the older pattern, structures like (29) instead being innovations.

Another area of variation that deserves further study is the determiner system. The singular *ti/ta* alternation has been claimed by van Eijk (1985: 223)—and challenged above on page 8—to characterize the Mount Currie and Fountain dialects respectively. Similarly, proper nouns are almost invariably preceded by the nominalizer *s-* or the determiner-nominalizer sequence *kw-s* for Fountain speakers, but AA and LT (Mount Currie speakers) almost never use the *kw-s* combination, preferring the nominalizer *s-* alone or the determiner *kw* alone, often unrounding the latter to *k* or eliding it completely—although the unrounded sequence *k-s* has also been recorded. Van Eijk (1985: 228, 229 n. 2) notes that this 'dropping' of parts of *kw-s* is characteristic of younger speakers, but with this group of consultants it looks indeed more like an isogloss, since the full *kw-s* sequence before proper nouns and elsewhere is generally ungrammatical for Mount Currie speakers:

- (31) á7ma k(\*w-s) Mary lhel s-Jane  
*cute det-nom Mary than nom-Jane*  
 'Mary is prettier than Jane'

(AA, LT, 9 March 1994, UBC Field Methods, token 294;  
 LT 2436)

- (32) áts'x-en-lhkan k(\*w-s) George i-nátcw-as  
*see-tr-1sg.su det-nom George when.past-day-3sg.conj*  
 'I saw George yesterday'

(AA, LT, 9 March 1994, UBC Field Methods, token 304;  
 LT 2437)

The ungrammaticality of *kw-s* in the above sentences makes this look like more of a syntactic phenomenon, rather than one of phonological reduction, but the matter needs further investigation before conclusions can be drawn.<sup>3</sup>

The regional differences outlined above are the only ones that have been obvious, and where these differences exist in the data cited, they are mentioned in footnotes.

#### 1.4. Data and methodology

Data for this thesis were collected from native St'át'imcets speakers during the period November 1993 to May 1994, under the auspices of the Project on Lexical Interfaces with Phonology and Syntax in North West Coast Languages, as part of an ongoing syntactic database of St'át'imcets that was begun by Henry Davis and Lisa Matthewson in October 1992. Most of the original data for this thesis are from Gertrude Ned and Rose Whitley, and thus—despite minor variation between these speakers—can be taken to represent the Fountain dialect. Most (if not all) of the original sentences cited here have been checked and rechecked during sessions subsequent to their initial collection, and the crucial data have additionally been confirmed in independent sessions with Alice Adolph and Laura Thevarge, speakers of the Mount Currie dialect. (See appendix C for biographies and genealogies of the language consultants.) The original elicitation of a sentence and its subsequent confirmations were usually recorded in a single database record, and so several speakers are often associated with a single token number. Sentences confirmed with the Mount Currie consultants may occasionally differ with respect to lexical items like *smúlhats/syáqtsa7* 'woman', but these differences are usually not noted. To get a clearer picture of which consultants originally supplied a particular sentence, consult appendix D for a table of the elicitation sessions, which

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<sup>3</sup> Fountain speaker RW characterizes sentences like these as typical of Mount Currie speech (Henry Davis, p.c.).

indicates which consultants were present at individual sessions. Note also that different sentences occasionally have the same token number because variants of a basic sentence have sometimes been recorded in the same database record.

Only data as are sufficient to illustrate generalizations are given in the thesis, but other data that confirm these generalizations are in the aforementioned database. Some idealization of the data has been necessary in chapter 3 (where subtle grammaticality judgments are not always consistent across speakers and across elicitation sessions), but it is always stated explicitly. If it seems like undue attention is given to explicating the varying grammaticality judgments in parts of chapters 2 and 3, it is precisely because generalizations cannot be made. Great care has been taken to represent fully and accurately the speech and grammaticality judgments of the consultants, and where differences among speakers and sessions exist, these are noted in the text and footnotes.

Textual data are not cited because texts cannot furnish two kinds of information that are necessary to the thesis: first, whether a sentence has more than a single interpretation; and second, whether a sentence would be ungrammatical if it had a slightly different form than the attested sentence. Textual data are useful for showing what syntactic structures are possible, but they do not reveal what structures and interpretations are impossible. This information is crucial for being able to describe a language's syntactic restrictions, and thus for trying to understand what constitutes a speaker's knowledge of language.

## Chapter 2

### Relativization

#### 2.1. Introduction

This chapter examines the structure of non-oblique-centered relative clauses (RCs) in St'át'imcets, filling in some of the gaps of previous descriptions.<sup>4</sup> Transitive and intransitive subjects will be seen not to pattern alike with respect to relativization, thus presenting a problem for a theory of relativization that assumes a unified notion of 'subject', e.g., Keenan and Comrie (1977: 80 ff.). Additionally, data are presented that clearly show that absolutive-centered relative clauses contain a gap corresponding to the relativized constituent—not covert 3sg agreement, a possibility suggested by Matthewson (1993b). The implication of this is that, although St'át'imcets (like other Salish languages) does not display overt extraction of a relative pronoun as Indo-European languages do, relativization nevertheless involves extraction of the relativized constituent. A fuller analysis of the structure of RCs remains to be done not only for St'át'imcets, but for Salish languages generally. Kroeber (1991) gives an excellent overview of the variety of forms of RCs in Salish, although he does not have as much data on St'át'imcets as on the other Northern Interior languages, Nla'kapmxcín (Thompson) and Secwepemctsin (Shuswap). The data presented in this chapter resolve all of the questions raised by Kroeber (1991) and Matthewson (1993b) pertaining to pronominal inflection inside RCs.

In comparing RCs across languages, Keenan and Comrie (1977: 63) and Kroeber (1991: 175) employ a semantically-based definition of RC, since the syntax of individual languages differs to an extent such that a purely syntactic definition of RC is difficult to maintain universally. The following definition, from Comrie (1981: 136), will suffice for this chapter:

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<sup>4</sup> Parts of this chapter are from Roberts (1994); thanks to Paul Kroeber for his detailed comments on that paper. Previous descriptions of St'át'imcets RCs include Gardiner et al. (1993: 145-147), Matthewson (1993a: 14-27; 1993b: 14-18), Matthewson et al. (1993: 224-226), Kroeber (1991: 258-264, 281-288), and van Eijk (1985: 185-187, 271).

. . . restrictive relative clauses are more central to the notion of relative clause than are non-restrictives [= appositives]. . . . A relative clause then consists necessarily of a head and a restricting clause. The head in itself has a certain potential range of referents, but the restricting clause restricts this set by giving a proposition that must be true of the actual referents of the over-all construction.

In the English sentence *Sally met the man who Fred hired*, the NP *the man* is said to be the head, while *who Fred hired* is the restricting clause. Note that the restricting clause has a gap where we expect the direct object, and that this gap corefers with the head of the RC, *the man*. This is therefore an object-centered RC, since the relativized constituent (or 'target') bears the grammatical relation of object within the restricting clause (a property of the *internal syntax* of the RC). Moreover, this English example is said to be head-initial, or to have a post-head RC, since the head of the entire construction precedes the RC itself. The *external syntax* of the RC refers to the role of the entire NP *the man who Fred hired* with respect to the main clause—here, direct object of the matrix predicate *meet*. This chapter is concerned with the internal syntax of RCs, since it is at this level of structure that St'át'imcets RCs differ.

Finally, another type of relative is the headless (or 'free') relative; an example corresponding to the English sentence above is *Sally met who(ever) Fred hired*. St'át'imcets has headless, post-head, and pre-head RCs, although the status of the latter construction as a true RC remains unclear. Nothing is said about them here, though it would be worthwhile to examine these structures in light of the findings that are presented in this chapter concerning the other two RC types.

Kroeber (1991: 176) notes that appositives [= non-restrictive RCs] are not widely attested in Salish, and Comrie (1981: 132) states more generally that the distinction between restrictive and non-restrictive RCs is found only sporadically across the world's languages. Likewise, attempts to elicit appositives in St'át'imcets have not met with success.<sup>5</sup> One straightforward test for the existence of appositives is to determine whether an RC may modify a proper noun. Unlike a restrictive RC, whose restricting clause serves to narrow the reference specified by the head, an appositive merely supplies additional information about a

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<sup>5</sup> Thanks to Henry Davis for checking these data.

fully-identified head. Proper nouns are fully referential, hence they may normally head only appositives—as in the English sentence *John, who was only hired this morning, was fired this afternoon*. Here, there are not several persons in the universe of discourse<sup>6</sup> named *John*, with the RC serving to narrow the reference of the main clause to a single individual. Rather, there is a single person named *John* in the universe of discourse, and the RC merely supplies additional information about him, namely, that he was only hired this morning.

In St'át'imcets, however, proper nouns cannot head an RC, as the following example shows:

- (33) \*pz-án-lhkan [ s-John [ ta ats'x-en-ácw-a i-nátcw-as ] ]  
*meet-tr-1sg.subj nom-John det see-tr-2sg.conj-det when.past-day-3sg.conj*  
 'I met John, who you saw yesterday'  
 (GN, RW 711; AA, LT 2303)

Sentences having an appositive interpretation may be expressed instead by coordination, as in the following example:

- (34) [ áts'x-en-lhkacw s-John i-nátcw-as ] múta7 [ pz-án-lhkan lhkúnsa ]  
*see-tr-2sg.su nom-J. when.past-day-3sg.conj conj meet-tr-1sg.subj now*  
 'I met John, who you saw yesterday'  
 (BF 828)

Because a structure like (33) cannot be used for appositives, it can be safely assumed that all of the RC data examined in this chapter—which take this form—represent restrictive RCs.

Keenan and Comrie (1977: 66) propose an Accessibility Hierarchy for relativization. The higher a grammatical function (GF) is on this scale, the easier it is to relativize:

(35) Accessibility Hierarchy

Subject > Direct Object > Indirect Object > Oblique > Genitive > Object of  
 Comparison

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<sup>6</sup> Calabrese (1990: 12) defines the universe of discourse for an utterance U as 'the set of referents, properties and presuppositions which the speaker believes the hearer presupposes in the time instant t in which U is uttered.'

If a language allows relativization of more than one of these roles, the Accessibility Hierarchy predicts that they will fall contiguously on the scale. For example, if a language can relativize obliques (by which Keenan and Comrie mean arguments, not adverbials), then all of the higher GFs should also be relativizable. In this instance, it would not be expected that only obliques, subjects, and direct objects—but not indirect objects—could be relativized. Distinct strategies of relativization within a language (e.g., changes in word order, gapping, case-marking, etc.) are also predicted to share contiguous elements on the scale. When a language does employ different strategies of relativization, it is further predicted that the less explicit types (e.g., omitting morphology corresponding to the relativized target) will be employed higher on the scale since those positions are easier to relativize, whereas the more explicit RC forms (e.g., retaining target morphology) will be employed for the roles that are lower on the scale, since they are harder to relativize (Comrie 1981: 156).

The Accessibility Hierarchy is a good place to begin the examination of St'át'imcets RCs, since Salish languages can challenge and test it in several respects. Relativization in St'át'imcets will be seen to distinguish ergative from absolutive with respect to relativization, contra Keenan and Comrie, who regard 'subject' as a unified notion in both accusative and ergative languages, and who argue that the notion of 'subject' is valid even in an ergative system, where the single argument of an intransitive predicate patterns with the object of a transitive predicate—rather than with the agent, as it does in an accusative language. Recall the chart in (1) in chapter 1 (p. 3).

Salish lacks a distinct 'indirect object' role, and so this member of the Accessibility Hierarchy may be disregarded (Kroeber 1991: 232). Kroeber (1991: 233) argues moreover that genitive (possessor) must be higher on the hierarchy than Keenan and Comrie suggest, and also that the 'oblique' category needs to be subdivided into oblique object, instrument, and locative. His revised scale for Salish therefore has the following form:

(36) Accessibility Hierarchy for Salish

Subject > Object > Possessor > Oblique Object > Instrument > Locative

Kroeber (1991: 232) does not discuss objects of comparison, due to lack of data. Little will be said of them here, either, beyond showing that—regardless of whether they are a distinct grammatical role in Salish (a separate, as yet unaddressed question)—they are difficult if not impossible to relativize. See (73-75) below (p. 34).

The only parameter of form that differs among RC types in St'át'imcets is the presence or absence of pronominal inflection corresponding to the target. In the following section, presence or absence of pronominal inflection in RCs is examined with respect to subject of transitive, subject of intransitive, direct objects, and possessors.

## 2.2. Pronominal inflection of relative clauses

### 2.2.1. Subject of transitive

In A-centered RCs, morphology corresponding to the ergative target is obligatorily retained, regardless of the person of the object. The post-head RC below has a 2sg object:

- (37) áts'x-en-lhkan [ ta sqáycw-a [ ta pz-án-tsih-\*(as)-a ] ]  
*see-trans-1sg.su det man-det det meet-trans-2sg.obj-3sg.conj-det*  
 'I saw the man who met you'

(AA, GN, LT 1328)

If the object agreement were omitted from (37), it would be interpreted as 3sg, since this person is not overtly marked. In such structures where the object is 3sg and the subject is extracted, it is preferred for some speakers (notably RW) to use either a passive construction or the topical object marker *-tali* (which is in complementary distribution with the 3sg *-as* subject suffix, and which only occurs in extraction contexts—see (91-93) on page 46 in chapter 3). The latter strategy is exemplified below in (38). Sentences (39-40) show that it applies with equal force to *wh*-extraction, and it is preferred especially when coreference between the *wh*-word and a possessive pronominal—indicated in the following glosses by matching subscript indices—is intended (Matthewson 1993a: 3, 19):

- (38) áts'x-en-as [ ti sqáycw-a [ ti tup-un'-\*{-táli/-ás}-(h)a s-Bill ]]  
*see-tr-3erg det man-det det hit-tr-{TO/3sg.conj}-det nom-Bill*  
 'he saw the man that hit Bill'

(GN 141; GN, RW 218; LT 2581)

- (39) swat ku ats'x-en-táli i skicez-í-ha  
*who det see-tr-TO pl.det mother-3pl.poss-det*  
 'who<sub>i</sub> saw their<sub>i</sub> mother?'

(BF, GN, RW 41)

- (40) \*swat ku áts'x-en-as i skicez-í-ha  
*who det see-tr-3sg.conj pl.det mother-3pl.poss-det*  
 'who<sub>i</sub> saw their<sub>i</sub> mother?'

(BF, GN, RW 41)

Interestingly, neither *-tali* nor passive may mark a relativized subject when the object is non-third-person, as in the following examples corresponding to (37) above:

- (41) \*áts'x-en-lhkan [ ta sqáycw-a [ ta pz-an-tsi-táli-ha ]]  
*see-trans-1sg.su det man-det det meet-trans-2sg.obj-TO-det*  
 'I saw the man who met you'

(AA, GN, LT 1329)

- (42) \*áts'x-en-lhkan [ ta sqáycw-a [ ta pz-án-tsi-m-a ]]  
*see-trans-1sg.su det man-det det meet-trans-2sg.obj-pass-det*  
 'I saw the man who met you'

(GN, LT 1329)

Because *-tali* appears only in third-person subject/third-person object sentences, Matthewson (1993b: 18-21) suggests that affixation of *-tali* is a disambiguation mechanism—rather than a GF-changing operation—since when a 3sg transitive subject is extracted (i.e., focused, questioned, or relativized) in a sentence having a third-person object (marked by  $-\emptyset$ ), there will not otherwise be any indication of which argument has been focused.<sup>7</sup> This seems plausible, except that it does not explain why subject morphology is obligatorily retained in an RC like (37). If the subject morphology were gapped, for example (*\*ta pzántsiha*), the sentence should still be unambiguously interpretable as 'the one who met you', since there would be an overt 3sg nominal to serve as the subject (the head of the RC, *ta sqáycwa* 'the

<sup>7</sup> Craig (1977: ch. 7) gives the same analysis of a similar effect in Jacaltec.

man'). The fact that ergative morphology must be retained when the object is non-third-person argues against a 'disambiguation strategy' analysis of the retention of morphology, since no ambiguity would arise if it were omitted. Obviously, some other element of the grammar of St'át'imcets is implicated in the retention of pronominal morphology here; see §4.4 for a structural analysis.

### 2.2.2. Subject of intransitive

In all Salish languages except those of the Southern Interior, person morphology corresponding to a relativized subject of intransitive is absent (Kroeber 1991: 235), but because 3sg absolutive is regularly marked by -Ø, the only way to determine whether the morphology is indeed absent in an intransitive-centered RC is to cleft a non-third-person nominal. Assuming that the residue of a cleft is an RC (Kroeber 1991: 184-187), the morphology corresponding to non-third-person targets in such constructions is indeed absent. Compare (43) and (44) in this regard, where the bracketed constituent in (44)—the residue of the cleft—is argued to be a headless RC:

- (43) tsícw-kan  
       go-1sg.subj  
       'I went'

(LT 2438; Kroeber 1991: 262, citing van Eijk 1985: 279)

- (44) tsukw    t'u7    s7ents    [ ti    tsícw-a ]  
       only    part    1sg.emph    det    go-det  
       'Only I went'

(AA, GN, LT, RW 1200;  
 Kroeber 1991: 262, citing van Eijk 1985: 279)

Note that the 1sg suffix *-kan* seen in the main clause (43) is absent from the RC in (44). However, Matthewson (1993b: 15) suggests that—despite the apparent lack of subject morphology in (44)—there could simply be null (indicative) 3sg agreement with the clefted in (44), since in clefts where morphology is overt (e.g., when clefting the subject of a transitive), the subject morphology of the residue does not agree with the person of the clefted:

- (45) \**nilh*      *snúwa*      *ti*      *áts'x-en-ts-acw-a*  
*focus*    *2sg.emph*   *det*    *see-tr-1sg.obj-2sg.conj-det*  
 'it was you who saw me'

(GN 116, 1320, 1330, 1331; AA, GN, RW 1403;  
 AA 2226, 2227; LT 2333)

Rather, there is obligatory 3sg agreement on the predicate:

- (46) *nilh*      *snúwa*      *ti*      *áts'x-en-ts-\*(as)-a*<sup>8</sup>  
*focus*    *2sg.emph*   *det*    *see-tr-1sg.obj-3sg.conj-det*  
 'it was you who saw me'

(GN, RW 60; GN 115, 1332; AA, GN, RW 1404;  
 AA 2225; LT 2332)

Nevertheless, there has been variation for one consultant (GN), who at one time accepted (45) as grammatical.

These agreement facts obtain even with clefted plurals, as exemplified below:

- (47) a. \**nilh*    *snúlap*    [ *i*      *ats'x-en-ts-ál'ap-a*      ]  
*focus*   *2pl.emph*    *pl.det*   *see-tr-1sg.obj-2pl.conj-det*  
 'it was you guys who saw me'

(AA, GN, LT, RW 1182)

- b. ?*nilh*    *snúlap*    [ *i*      *ats'x-en-tsal-itás-a*      ]  
*focus*   *2pl.emph*    *pl.det*   *see-tr-1sg.obj-3pl.conj-det*  
 'it was you guys who saw me'

(AA, GN, LT, RW 1183)

- c. *nilh*    *snúlap*    [ *i*      *ats'x-en-ts-ás-a*      ]<sup>9</sup>  
*focus*   *2pl.emph*    *pl.det*   *see-tr-1sg.obj-3sg.conj-det*  
 'it was you guys who saw me'

(AA, GN, LT, RW 1182)

Interestingly, (a) is ungrammatical when the RC residue agrees with the clefted 2pl pronoun. Third-person agreement inside the RC is preferred, with singular agreement (c) being preferred to plural agreement (b), despite the fact that the focused pronoun is plural. Another

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<sup>8</sup> The emphatic pronoun may appear sentence-initially without the focus marker *nilh*. In this respect, emphatic pronouns differ from other nominals, which cannot appear pre-predicatively without a preceding *nilh* (as noted in §1.3.1).

<sup>9</sup> See the previous footnote.

reason that singular agreement is preferred here is that plural morphology is in complementary distribution with overt nominals and plural determiners (van Eijk 1985: 277-278).

Under a 3sg-agreement analysis, then, sentence (44) would be more fully represented as follows:

- (48) tsukw t'u7 s7ents [ ti tsicw-Ø-a ]  
*only part 1sg.emph det go-3sg.intr.su-det*  
 'Only I went'

A possible argument against the 3sg-agreement analysis, though, is that the residue of clefts generally receive conjunctive, not indicative, inflection, and so absence of a 3sg pronominal in an RC would have to indicate a real gap, since conjunctive inflection is overt for 3sg (examine the subject suffix paradigms in appendix A, p. 107). However, for some speakers, conjunctive inflection is only a preference for RCs, and indicative inflection is also possible, as the following example shows:

- (49) nilh ta sqáycw-a ta ats'x-en-(lhk)-án-a cúlel  
*focus det man-det det see-tr-indic-1sg.su-det run*  
 'it's the man I saw that ran away'

(GN, RW 349; GN 1319; Matthewson 1993a: 14)

Although the indicative variant of (49) is ungrammatical for AA and LT, suggesting that their S-centered RCs do contain a gap, it would be desirable to be able to show that the other speakers have a gap in these structures as well. Another argument for the existence of a gap in S-centered RCs is needed.

The correctness of the gap analysis is suggested by the fact that the intransitive-centered RC (44) is indeed ungrammatical with conjunctive inflection, regardless of whether there is 1sg or 3sg agreement:

- (50) a. \*tsukw t'u7 s7ents [ ti tsícw-an-a ]  
*only part 1sg.emph det go-1sg.conj-det*  
 'I am the only one who went'

(AA, GN, LT, RW 1200)

- b. \*tsukw t'u7 s7ents [ ti tsícw-as-a ]  
*only part 1sg.emph det go-3sg.conj-det*  
 'I am the only one who went'

(AA, GN, LT, RW 1201)

The fact that even the default 3sg agreement illustrated in (46) and (47) for subject of transitives is not possible for intransitive subjects shows that relativization does not refer to a single 'subject' role that subsumes both transitive and intransitive subjects.

Further evidence against the 3sg-agreement analysis in (48) is the behaviour of plural intransitive subjects when relativized, since plural morphology is overt in both the plain and conjunctive paradigms. Because plural morphology is in complementary distribution with overt nominals and plural determiners, as noted above, this can only be checked with headless RCs. The following examples take this form, and they confirm that the morphology corresponding to the relativized intransitive subject is obligatorily absent:

- (51) áma-s-kan [ i qwatsáts(\*-as)-a ]  
*good-tr-1sg.su pl.det leave-3sg.conj-det*  
 'I like (the ones) who are leaving'

(LT 17 May 1994; cf. AA, GN 1324)

- (52) áma-s-kan [ i wa7(\*-as) gúy't ]<sup>10</sup>  
*good-tr-1sg.su pl.det prog-3sg.conj sleep*  
 'I like (the ones) who are sleeping'

(LT 17 May 1994; cf. RW 1075; AA, GN 1321)

- (53) áma-s-kan [ i wa7(\*-as) q'ílhil ]  
*good-tr-1sg.su pl.det prog-3sg.conj run*  
 'I like (the ones) who are running'

(LT 17 May 1994; cf. RW 1076; AA, GN 1323)

Note that the presence or absence of subject morphology is not affected by whether the predicate is unaccusative, as in (51), or unergative, as in (52-53).<sup>11</sup> The fact that all of these sentences are ungrammatical with 3sg agreement constitutes strong evidence that the

<sup>10</sup> Pursuant to the discussion in §1.3.1, the enclitic half of the discontinuous determiner is absent here and in the following sentence because progressive *wa7* is present.

<sup>11</sup> *gúy't* 'sleep' patterns with unergatives according to Davis (1993a).

grammatical variants of these sentences—and S-centered RCs generally—contain a gap corresponding to the relativized constituent.

### 2.2.3. Direct object

Relativization of direct objects mirrors relativization of subject of intransitive, in that the morphology corresponding to the target is absent:

- (54) (nilh) snúwa ti ats'x-en(\*-tsín)-án-a  
       *focus 2sg.emph det see-tr-2sg.obj-1sg.conj-det*  
       'it was you that I saw'

(GN 119, 120; AA, GN, LT, RW 1405, 1406)

Both Kroeber (1991: 259-263) and Matthewson (1993b: 16-17) state that object morphology in object-centered RCs may be freely retained or omitted, but this is not certain. GN apparently accepted overt object morphology at one point (token 120), but GN and RW together rejected this variant of (54) during its most recent elicitation; AA also independently rejects it. If object morphology in these structures is indeed obligatorily absent, a possible analysis, suggested by Matthewson (1993b: 17), is that the missing object morphology does not represent a gap; instead, there is null 3sg agreement with the clefted—analogue to the overt, 3sg agreement seen above in (46-47)—since 3sg objects are marked by -Ø. The structure of (54) would therefore be more fully represented as in (55):

- (55) (nilh) snúwa ti ats'x-en-Ø-án-a  
       *focus 2sg.emph det see-tr-3sg.obj-1sg.conj-det*  
       'it was you that I saw'

Because 3sg objects are never marked overtly on any predicate, Matthewson (1993b: 17) concludes that it is impossible to distinguish a gap from covert 3sg agreement in O-centered RCs.

A test for a gap is suggested by van Eijk's (1985: 278-279) statement that conjoined proper noun complements generally require a plural affix on the predicate. This is exemplified below:

- (56) wa7 k'wzús-em{-wit/\*-Ø} wi s-John múta7 s-Bill<sup>12</sup>  
*prog work-intr-{3pl.su/3sg.intr} pl.det nom-John conj nom-Bill*  
 'John and Bill are working'

(LT 2334; van Eijk 1985: 278)

In (56), the predicate takes the 3pl subject marker in agreement with the conjoined subject, 'John and Bill'. Default 3sg agreement with the subject is in fact ungrammatical, unlike the sentences in (46-47) above. Because third-person object agreement is overt when the object is plural and the subject is non-third person (the 3pl object affix is variously *-tani* and *-wit*—see the object suffix paradigm in appendix A, p. 106), it is possible to distinguish a gap from object agreement by clefting a conjoined object that requires plural agreement. For example, the following non-clefted sentence requires 3pl agreement with its object, 'John and Bill':

- (57) áts'x-en{-táni/-wít/\*-Ø}-lhkan wi s-John múta7 s-Bill  
*see-tr-{3pl.obj/3pl.obj/3sg.obj}-1sg.su pl.det nom-John conj nom-Bill*  
 'I saw John and Bill'

(LT 2335, 2336, 2337)

When the object is clefted, however, as in (58), the pattern of agreement is exactly opposite:

- (58) nilh wi s-John múta7 s-Bill i áts'x-en{-Ø/\*-táni/\*-wít}-án-a lhkúnsa  
*foc pl.det nom-J conj nom-B pl.det see-tr{-Ø/3pl.obj}-1sg.conj-det now*  
 'it was John and Bill that I saw'

(LT 2338, 2339)

The fact that the 3pl agreement morphology that was obligatory in (57) must be absent from its corresponding cleft in (58) establishes that there is a gap in the RC residue corresponding to the clefted object. Note that this test requires a cleft construction and an RC residue; an ordinary headed RC may not be used, since RCs may not modify proper nouns in St'át'imcets, as already seen in (33) on page 19.

The same fact may be demonstrated when an emphatic pronoun and another NP are conjoined as a single object, since they require plural agreement. In (59) below, a 2sg

<sup>12</sup> This sentence was volunteered by LT as a translation for the English gloss indicated. AA prefers not to have the *wi* determiner before the compounded proper nouns, and also has 3sg and 3pl agreement in free variation. Additional comments on the differences between LT and AA with respect to person/number agreement follow in the text.

emphatic pronoun is conjoined with a proper noun. Unlike the clefting of a single 2sg emphatic pronoun as the subject of a transitive, as in (45-46), there cannot be 3sg agreement. Rather, agreement is obligatorily second-person:<sup>13</sup>

- (59) áts'x-en{-tsín/-túmulh/\*-Ø}-(lh)kan      snúwa      múta7      s-Mary  
*see-tr-{2sg.obj/2pl.obj/3sg.obj}-1sg.conj 2sg.emp conj nom-Mary*  
 'I saw you and Mary'  
 (LT 2340, 2341)

When the conjoined object in (59) is clefted, however, the RC residue contains an obligatory gap corresponding to the object:

- (60) (nilh) snúwa      múta7      s-Mary      {ti/i}      áts'x-en{-Ø/\*-túmulh/\*-tsín}-án-a<sup>14</sup>  
*foc 2sg.emp conj nom-Mary det/pl.det see-tr{-Ø/2pl.obj/2sg.obj}-1sg.conj-det*  
 'it was you and Mary that I saw'  
 (AA 2260, 2261, 2264; LT 2342, 2343)

This comprises additional proof that object-centered RCs have a gap corresponding to the target, not covert 3sg agreement, contra Kroeber's (1991: 235) claim that object pronominals are 'probably never obligatorily deleted in object-centered RCs.'

The tests above do not work for all speakers. AA, for example, requires 3sg agreement in both (57) and (59), and so the absence of object morphology for her in (60) cannot be taken as evidence for a gap in this structure. LT in fact has an ergative/absolutive asymmetry, requiring person/number agreement for conjoined absolutive arguments, but freely alternating between person/number agreement and default 3sg agreement for conjoined ergative arguments. Although AA and LT are both Mount Currie speakers, the facts above confirm that speakers of the same region may nevertheless vary with respect to subtle phenomena like agreement with compounded arguments. It is important to note that this

<sup>13</sup> LT has alternately preferred 2sg and 2pl agreement. In checking similar data with the Fountain speakers, GN stated that the number varies depending upon the number of the addressee, i.e., whether the referent of the proper noun is present as an addressee; if so, 2pl agreement is preferred.

<sup>14</sup> The singular and plural determiners *ti* and *i* have been in free variation for both AA and LT in this sentence, although LT preferred plural *i* during the most recent elicitation. Perhaps the alternation is correlated with the number of the addressee, as suggested by the previous footnote.

represents true idiolectal variation since each speaker is systematic in her own agreement pattern, LT requiring person and number agreement with compounded absolutive arguments, and AA preferring default 3sg agreement in all cases, analogous to the A-centered RCs in (45-47).

Fountain speakers GN and RW are yet different with respect to agreement with conjoined arguments. All conjoined proper noun complements—whether as ergatives or absolutives—may freely have either 3sg or 3pl on the predicate. Conjoined arguments containing an emphatic pronoun are more complicated: there appears to be obligatory person agreement with the emphatic pronoun only with the transitive subjects and direct objects; these conjoined arguments are moreover ungrammatical in intransitive sentences unless focused, regardless of the agreement on the predicate. Data from these speakers are not cited because—although they corroborate the existence of a gap in O-centered RCs—they have only been elicited once, and need to be confirmed individually with the consultants.

The gap found in object-centered RCs for several speakers therefore parallels the gap found in intransitive-subject-centered RCs. Stated more generally, absolutive-centered RCs in St'át'imcets contain a gap corresponding to the target.

#### 2.2.4. Possessor

Word order of possessors is very restricted. The sentence in (61) shows that while a possessor and a head may be preposed together in a focus construction, (62) reveals that neither element may be brought into this position alone, since it creates a discontinuous constituent:

- (61) nilh [ ta sqáxa7-s-a s-Mary ] ta cúlel-a  
       foc det dog-3sg.poss-det nom-Mary det run.away-det  
       'it was Mary's dog that ran away'

(AA, LT 2304; Gardiner et al. 1993: 144)

- (62) a. \*nilh ta sqáxa7-s-a ta cúlel-a s-Mary  
       foc det dog-3sg.poss-det det run.away-det nom-Mary

(AA, LT 2305; Gardiner et al. 1993: 144)

- b. \*nilh s-Mary ta cúlel-a ta sqáxa7-s-a  
*foc nom-Mary det run.away-det det dog-3sg.poss-det*  
 (AA, LT 2306; Gardiner et al. 1993: 144)

- (66) *qwits ti sqáycw-a tu wa7 alkst ti sem7ám-\*(s)-a*<sup>15</sup>  
*rich det man-det det prog work det wife-3sg.poss-det*  
 'the man whose wife is working is rich'

(GN 1340; LT 2442)

- (67) *qwits ta smúlhats-a ta xzúm-a ta tsítcw-s-a*  
*rich det woman-det det big-det det house-3sg.poss-det*  
 'the woman whose house is big is rich'

(GN, RW 1354; LT 2443)

These constructions are difficult for speakers to process, though GN, RW, and LT accept them as grammatical. Interestingly, AA does not find these sentences grammatical, but more readily accepts relativization of objects of comparison, which GN, RW, and LT do not accept; see (73-75) in the next section. It has not been possible to relativize the possessor of an A or an O, presumably because possessors are already fairly inaccessible to relativization, and it is yet more difficult if the sentence has more than one overt argument.

The asymmetric behaviour of possessors outlined above suggests that in St'át'imcets, the syntax of relativization differs from that of *wh*-extraction/focus—an important discovery, if correct, since it has not hitherto been obvious. Kroeber (1991: 187), for example, regards relative clauses and the residues of cleft constructions as nondistinct in Salish, since they appear identical in form. The data examined above suggest the summary in (68):

- (68) Possessor-extraction contexts in St'át'imcets

Grammatical	Ungrammatical
relativization	focus; <i>wh</i> -questions; ordinary clauses

Finally, note that possessor relativization does not show stage- vs. individual-level-predicate asymmetries of the kind reported for *wh*-possessor extraction in Nla'kapmxcín, where individual-level predicates allow a *wh*-possessor to extract, but stage-level predicates apparently do not (Gardiner et al. 1993: 140-141). A similar asymmetry originally appeared

<sup>15</sup> The determiner *tu* is underlyingly the usual *ti/ta*, the vowel merely having assimilated to the initial labial of the following *wa7*.

to exist for possessor relativization in St'át'imcets, as in (69), which relativizes the possessor of an argument of a stage-level predicate, *wáz'am* 'to bark':

- (69) *wa7 we7áw' ta smúlhats-a ta \*(wa7) wáz'-am ta sqáxa7-s-a*<sup>16</sup>  
*prog shout det woman-det det prog bark-intr det dog-3sg.poss-det*  
 'the woman whose dog barked is shouting'

(GN, RW 1356)

Possessor relativization is ungrammatical without the progressive auxiliary *wa7*, but this ill-formedness is merely aspectual in nature (Henry Davis, p.c.). The sentence is improved when *wa7* is present in the RC.

Perhaps it is possible to reanalyze the Nla'kapmxcín asymmetry as an aspectual one, namely, that stage-level predicates are better when the progressive auxiliary is present. Note, for example, that all of the Nla'kapmxcín data cited by Gardiner et al. (1993) lack *?u?æx* or any other auxiliary. More importantly, however, although the Nla'kapmxcín consultant for Gardiner et al. (1993), DU, made the distinctions reported by them on 2 June 1993, during the most recent elicitation of these data she did not. The relevant sentences are the following:<sup>17</sup>

- (70) *swat k xzum k čitx<sup>w</sup>-s*  
*who unr big unr house-3sg.poss*  
 'whose house is big?'
- (71) *swat k wác'ama k sqáqxa?-s*  
*who unr bark unr dog-3sg.poss*  
 'whose dog barked?'
- (72) *swat k q<sup>w</sup>čiyx k sqáqxa?-s*  
*who unr leave unr dog-3sg.poss*  
 'whose dog left?'

(DU, Nla'kapmxcín, 19 April 1994)

<sup>16</sup> The variant of this sentence without *wa7* must also have the enclitic portion of the discontinuous determiner (*ta wáz'-am-a*)—as discussed in §1.3.1—although this variant is irrelevant, since the sentence without *wa7* is in any case ungrammatical (as noted in the text).

<sup>17</sup> Consult Thompson and Thompson (1992) for explanation of the grammatical abbreviations in these examples.

Gardiner et al. (1993: 140-141) report that (70) (their example (7))—having possessor extraction with an individual-level predicate—is grammatical, while (71-72) (their examples (5-6))—having possessor extraction with a stage-level predicate—is not. As indicated above, however, DU now regards all of these sentences as grammatical. If the judgments represented in (70-72) remain stable, then Nla'kapmxcín and St'át'imcets may be more alike with respect to possessor extraction than has hitherto been suspected. Unfortunately, possessor extraction is marginal enough that it will likely be difficult to ascertain consistent judgments for this construction in either language.

### 2.2.5. Object of comparison

Recall from page 21 that Kroeber (1991: 232) did not have any data on relativization of objects of comparison. These are ranked lowest on Keenan and Comrie's (1977) Accessibility Hierarchy (35), and indeed it is difficult to relativize them in St'át'imcets. This is not surprising, given the difficulty in relativizing possessors, which are argued by them to be higher on the scale. (73) is a main clause comparative, and (74-75) attempt to relativize the object of comparison:

- (73) p'a7cw s-zác-al'qwem'-s ta sqáycw-a lhel ta smúlhats-a  
*more nom-long-appear-3sg.poss det man-det than det woman-det*  
 'the man is taller than the woman'  
 (AA, LT, RW 1051)

- (74) ?wa7 tayt ta p'a7cw-a s-zác-al'qwem' sqaycw lhel ta smúlhats-a  
*prog hungry det more-det nom-long-appear man than det woman-det*  
 'the woman whom the man is taller than is hungry'  
 (AA, LT, RW 1052)

- (75) ?wa7 tayt ta sqáycw-a wa7 p'a7cw-a zác-al'qwem'-a lhel ta smúlhats-a  
*prog hungry det man-det prog more-det long-appear-det than det woman-det*  
 'the woman whom the man is taller than is hungry'  
 (AA, LT, RW 1054)

Judgments differ on these sentences. LT and RW consider (73-75) to be ungrammatical. AA, however, marginally accepts them, and moreover expresses a preference for (75) over (74).

The consultants therefore can be seen to differ in the ease with which they relativize the lower-ranked GFs: LT and RW allow relativization of possessors but not objects of comparison, while AA permits relativization of objects of comparison but not possessors. Of course, these data may be irrelevant to the predictions of the Accessibility Hierarchy if objects of comparison are not a distinct grammatical role in Salish—a separate question that has not been investigated.

### 2.3. Summary

Consider the general patterning of morphology that corresponds to non-oblique targets of relativization, as summarized from the preceding discussion in (76):

(76) Morphology with non-oblique targets of relativization

Ergative		Absolutive	
subject of transitive	possessor <sup>18</sup>	subject of intransitive	direct object
morphology corresponding to target is obligatorily retained		obligatory gap corresponding to target	

A clear ergative/absolutive pattern has emerged. Absolutive-centered RCs obligatorily omit person morphology. Ergative-centered RCs, however, are complicated in two respects: first, subject morphology corresponding to the target is retained, and second, there exists special morphology (the topical object marker *-tali*) that can occur only in this type of RC. Not only are ergative-centered RCs therefore marked more explicitly than absolutive-centered RCs (by retaining the 3sg subject suffix *-as*), but they can also employ a distinct strategy of relativization (affixation of *-tali*). These are exactly the properties claimed by Keenan and Comrie (1977) to show that such a relativized constituent is lower on the Accessibility Hierarchy than higher roles, which are relativized more easily. The Accessibility Hierarchy

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<sup>18</sup> Possessor appears under the ergative column because it behaves the same as A with respect to retention of morphology when relativized. It is not clear whether this fact has the same explanation in both ergative- and possessor-centered RCs, but see Allen (1964) for a survey of languages in which there is a formal correspondence between ergatives and possessors.

for Salish (36) should probably undergo revision, as already suggested by Kroeber (1991: 233), with the subject GF split into ergative and absolutive:

(77) Absolutive > Ergative > Possessor > Oblique Object > Instrument > Locative

Keenan and Comrie (1977: 80 ff.) are reluctant to assign distinct positions on the Accessibility Hierarchy to ergative and absolutive (preferring instead to maintain the single role of subject), since distinct positions would predict the existence of relativization strategies that could apply only to absolutives, whereas such strategies are not attested in any language. For this chapter, though, the Accessibility Hierarchy has no theoretical status. The scale in (77) serves as a useful description of the facts in St'át'imcets relativization, but a structural explanation for the ranking in (77) is offered in §4.4.

An ergative pivot is apparently at work in St'át'imcets relativization, at least morphologically, and this presents a problem for a theory of relativization that assumes a notion of subject that is defined on {A,S}. The status of the morphology in ergative-centered RCs is not clear, though; if *-as* were not a subject suffix, for example, then the ergative-centered RCs would more plainly have a gap, exactly as do the absolutive-centered RCs. The analysis of RCs in §4.4 will assume that ergative-centered RCs do indeed involve extraction of the relativized constituent, and such an analysis is surely desirable, not only on general theoretical grounds, but because there is indirect evidence for ergative extraction in Halkomelem, a Coast Salish language that omits the person morphology corresponding to relativized ergatives (Gerds 1988: 82-83)—exactly the environment in which St'át'imcets seems to retain such morphology. Nevertheless, in having a restriction on relativization of ergatives (whether it is analyzed as morphological or syntactic—and the division is not always clear), St'át'imcets is only one of many such languages, including Tzutujil (Dayley 1985: 210-215), Dyirbal (Dixon 1979: 127-128), Tongan and other Polynesian languages (Chung 1978: 37-44), Jacaltec (Craig 1977: ch. 6), Chukchee (Comrie 1979: 225-226, 229-230), Coast Tsimshian (Mulder 1988: §3.10; 1989: 426-428), Inuktitut (Creider 1978: 99 ff.; Johns 1992:

72), Yup'ik Eskimo (Payne 1982: 85-87), and Greenlandic Eskimo (Woodbury 1975, cited by Keenan and Comrie 1977: 83; cf. Smith 1984).

However the facts presented in this chapter are analyzed, it is important to bear in mind that relative clauses in St'át'imcets resemble RCs in other languages, in that they exhibit an obligatory gap. This gap mirrors the extraction of relative pronouns and empty operators in Indo-European languages like English.

## Chapter 3

### Conjunction

#### 3.1. Introduction

This chapter examines the properties of pronominal coreference across sentential conjuncts in St'át'imcets. As explained in chapter 1, Dixon (1979) shows that languages may vary in their choice of syntactic pivot for processes of conjunction ('coordination' in his terminology) and subordination. If a syntactic process treats A and S alike, in opposition to O, it is said to have an accusative pivot. On the other hand, if S and O (but not A) are uniquely identified by a syntactic operation, the process is said to have an ergative pivot. Recall the chart in (1) on page 3. It is also possible for a language to be neither ergative nor accusative with respect to these processes; Coast Tsimshian, for example, has been argued by Mulder (1988: §3; 1989) to lie somewhere in the middle of a continuum between syntactic accusativity and ergativity.

Chapter 2 has shown that an ergative pivot is at work in one of the major subordination types in St'át'imcets, relativization. This chapter examines conjunction (the other major process besides subordination claimed by Dixon (1979) to vary cross-linguistically in its pivot) in St'át'imcets in order to determine the behaviour of {A,S,O} with respect to each other in this construction. It will be seen that conjunction, unlike relativization, is neither ergative nor accusative. Although one speaker sometimes appears to have an accusative pivot, it is probably best regarded not as a syntactic pivot, but instead as a constraint on the discourse roles of coreferent NPs (Matthewson 1993a). For all speakers, coreference is most forcefully constrained by the one-nominal interpretation law (Gerds 1988), which compels a unique interpretation in conjuncts that contain a single overt nominal.

St'át'imcets has many ways of marking conjunction; for a sampling of subordinating and coordinating conjunctions, see van Eijk (1985: 172-173, 211-213, 217-219, 252, 270-273). In order to restrict the domain of investigation and thus facilitate the comparison of sentences, all of the sentences presented below have the subordinating conjunction *nilh* 'then; so, then', which is not to be confused with the homophonous focus-marker mentioned in

chapter 1 (p. 7) and seen throughout chapter 2 in cleft constructions. The conjunction *nilh* is clearly subordinating, rather than coordinating, as it induces subordinate inflection (specifically, nominalization) in the non-initial conjunct. Inflection of clause types in St'át'imcets was discussed in §1.3.1 and summarized in the chart in (27) on page 12.

There is another methodological point that is worth noting. Although sentences having both a subject and an object are rare in discourse (van Eijk 1985: 262)—since St'át'imcets is a radical head-marking language and thus allows arguments to be referenced solely by morphology on the predicate—entirely third-person sentences without at least one overt nominal argument are highly disfavored discourse-initially. For this reason, in eliciting most of the data, a discourse context was provided immediately preceding the sentences of interest; this context was necessary especially before sentences having no overt nominals in the first conjunct. The context that was used in each case is always cited below. Even transitive sentences having a single overt nominal—for example, (18-19) in chapter 1 (p. 10)—are disfavored discourse initially, and are regarded as felicitous only when there is a discourse context that can supply a subject for such sentences. For elaboration of this point, see the discussion concerning (124-126) in chapter 4 (pp. 63 ff.).

### 3.2. Conjuncts with non-third-person

It is easy to show that there is no single pivot for conjunction that is either ergative or accusative by constructing null-pronominal sentences whose second, transitive conjunct has one pronominal affix (marking either A or O) that is uniquely non-third-person. Consider, for example, sentences (79-80), which have (78) as their context:

- (78)    *qwatsáts*        *i*            *smelhmúlhats-a*  
           *leave*            *pl.det*    *women-det*  
           'the women<sub>i</sub> left'

- (79) p'án't-wit      nilh      s-7ats'x-en-tsál-itas<sup>19</sup>  
*return-3pl.intr conj nom-see-tr-1sg.obj-3pl.su*  
 'they<sub>i</sub> returned and they<sub>i</sub> saw me'

(AA, GN, RW 1382)

- (80) p'án't-wit      nilh      s-7ats'x-en-tánih-an  
*return-3pl.intr conj nom-see-tr-3pl.obj-1sg.conj*  
 'they<sub>i</sub> returned and I saw them<sub>i</sub>'

(AA, GN, RW 1384)

Both (79) and (80) have a 3pl subject in the first conjunct, coreferent with *i smelhmúlhatsa* 'the women'. In the second conjunct of each sentence is a single 3pl affix: it marks the subject in (79), and the object in (80). In each sentence, the 3pl argument of the second conjunct may corefer with the 3pl subject of the first conjunct, as indicated in the glosses by subscript indices. Note, importantly, that (79) and (80) differ minimally in the person morphology of the second conjunct; the conjoined predicate in neither of these sentences needs grammatical-function-changing morphology, e.g., passive *-m* or the topical object marker *-tali*. If St'át'imcets conjunction had an ergative or an accusative pivot, it might be expected that a process like passive or antipassive would operate in either (79) or (80) in order that such a GF-changing operation could feed the syntactic pivot (Dixon 1979: 120-130).

There are similarly no asymmetries in sentences having two intransitive conjuncts; a pronominal S of the first conjunct may freely corefer with an S of the second conjunct, irrespective of unaccusative/unergative distinctions. The subject clitic is obligatory in each conjunct of the following examples; it may not be deleted under identity with the clitic in the first conjunct:

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<sup>19</sup> LT (2445, 2446) prefers that this sentence and the next one begin with the past complementizer *i*, which also triggers conjunctive *-as* on the predicate: *i p'án't-wit-as* 'when they returned'. Coreference obtains as indicated in the text by the subscript indices.

- (81) qwatsáts-\*(kalh) nilh s-p'án't-\*(kalh)<sup>20</sup>  
*leave-1pl.intr conj nom-return-1pl.poss*  
 'we left and then we returned'

(AA, GN, RW 1389)

- (82) má tq-kalh nilh s-kwis-\*(kalh)  
*walk-1pl.intr conj nom-fall-1pl.poss*  
 'we walked and then we fell'

(AA, GN, RW 1391)

- (83) ka-kwís-kalh-a nilh s-ka-gúy't-\*(kalh)-a<sup>21</sup>  
*ooc-fall-1pl.intr-ooc conj nom-ooc-sleep-1pl.poss-ooc*  
 'we fell and then we slept'

(AA, GN 1509)

(82) has an unergative predicate in its first conjunct, as does the second conjunct of (83); the remaining conjuncts in (81-83) have unaccusative predicates. Because coreference between conjuncts is free in all of these combinations of different kinds of predicates—and because none of them show signs of GF-changing operations—there is again no evidence for a syntactic pivot.

Conjunction in St'át'imcets therefore appears to be neither ergative nor accusative, unlike relativization, which is ergative (chapter 2). In this respect, St'át'imcets probably behaves like most of the world's languages. Dixon (1979: 129) remarks:

It may be that some languages cannot be clearly characterized, at the syntactic level, in terms of the ergative/accusative continuum. That is, processes such as coördination [= conjunction] may not operate in terms of well-defined constraints like those applicable to Walmatjari and Dyirbal. . . . Certainly, some languages have a considerable set of well-defined syntactic constraints, which facilitate a clear judgment of their position on the ergative/accusative syntactic scale; but others have more fluid conditions that provide slimmer evidence for judgment. For instance, coördination

---

<sup>20</sup> LT (2447, 2448) offers an interesting correction to this sentence and the next, apparently with two conjunctions, as exemplified in (i):

(i) qwatsáts-\*(kalh) nilh t'u7 múta7 s-p'án't-\*(kalh)  
*leave-1pl.intr conj part conj nom-return-1pl.poss*  
 'we left and then we returned'

<sup>21</sup> LT (2449) prefers the discontinuous out-of-control auxiliary to be absent from *kwis* 'fall' here, as it is in the previous sentence in the text:

(i) kwís-kalh nilh t'u7 s-ka-gúy't-\*(kalh)-a  
*fall-1pl.intr conj part nom-ooc-sleep-1pl.poss-ooc*  
 'we fell and then we slept'

may largely follow semantic, stylistic, or discourse-organization preferences, rather than conforming to any strict syntactic matrix.

The last sentence describes conjunction in St'át'imcets well, as will be seen in the next section.

### 3.3. Conjuncts with third-person subject and object

Coreference across conjuncts is more restricted in sentences having third-person subjects and objects with various combinations of proper nouns. Because consultants have the most consistent judgments for coreference in sentences having two transitive conjuncts, these will be examined first (§3.3.1). Section 3.3.2. then examines sentences in which one of the conjuncts is intransitive; the data here are less firm, and so it is harder to base generalizations on them.

#### 3.3.1. Conjoined transitives

##### 3.3.1.1. Parallelism constraint on discourse functions

Sentences having two transitive conjuncts display striking evidence for a parallelism constraint on discourse functions. This is seen most clearly in sentences having no overt NPs, as in (85) below. This sentence is preceded by the context in (84), as are the others in this section (§3.3.1).<sup>22</sup>

- (84) Pz-án-twal' wi s-Bill múta7 s-John. Wa7 wi7 cmán'-twal'-wit.  
*meet-tr-recip pl nom-Bill conj nom-John prog emph enemy-recip-3pl.su*  
 'Bill<sub>i</sub> and John<sub>j</sub> met each other. They're enemies.'

---

<sup>22</sup> A reciprocal context with same-sex participants ('Bill and John met each other') is used in order to minimize the possibility that one participant will be more prominent in the discourse and unduly affect the coreference possibilities in the sentences of interest. Initial attempts to elicit conjoined transitives used asymmetric discourse contexts, with male and female participants and predicates like *ts'um'qsán'* 'kiss', and coreference judgments consequently turned out to be asymmetric in unusual ways that suggested that the consultant was basing them on facts that she thought would be more likely to obtain between men and women (as she later confirmed).

- (85) áts'x-en-as nilh s-qvlqvl-ts-mín'-as<sup>23</sup>  
*see-tr-3erg conj nom-bad-mouth-appl-3sg.conj*  
 a. 'he<sub>i</sub> saw him<sub>j</sub>, and then {he<sub>i</sub> swore at him<sub>j</sub>/\*he<sub>j</sub> swore at him<sub>i</sub>}'  
 b. 'he<sub>j</sub> saw him<sub>i</sub>, and then {he<sub>j</sub> swore at him<sub>i</sub>/\*he<sub>i</sub> swore at him<sub>j</sub>}'  
 (AA, GN, RW 1595)

Because the first conjunct of (85) has no overt NPs, it may be ambiguously interpreted as to who is seeing whom. However, given a specific interpretation of the first conjunct, there is a tendency, for all speakers, to interpret the subject and object of the second conjunct as referring to the same subject and object of the first conjunct.

A similar phenomenon can be observed in complex clauses. In examining pronominal coreference into relative clauses in St'át'imcets, Matthewson (1993a) independently found that—although coreference into relative clauses is not restricted by Condition C of the binding theory (see Chomsky 1981; 1986; etc.)—it is restricted by a constraint on the discourse functions of the coreferent items. Consider the following paradigm:

- (86) ts'um'-qs-án'-as kw-s Mary ta sqáycw-a ta xwis-ás-a  
*lick-nose-tr-3erg det-nom Mary det man-det det love-3sg.conj-det*  
 a. 'Mary<sub>i</sub> kissed the man that she<sub>j</sub> loves' (topic . . . topic)  
 b. \*'the man who loves her<sub>j</sub> kissed Mary<sub>i</sub>' (non-topic . . . non-topic)  
 c. \*'Mary<sub>i</sub> kissed the man who loves her<sub>j</sub>' (topic . . . non-topic)  
 d. \*'the man that she<sub>j</sub> loves kissed Mary<sub>i</sub>' (topic . . . non-topic)  
 (GN, RW 386; Matthewson 1993a: 19; Matthewson et al. 1993: 229)

Kinkade (1989; 1990) shows that topics ('old', presupposed information in the discourse) in Salish languages typically occupy the subject position of clauses, whereas non-topics ('new' information) appear in object position. Topics and non-topics may appear in non-canonical positions (object and subject respectively) if the predicate is passivized or affixed by the topical object marker, though in St'át'imcets the latter strategy may be used only in extraction contexts, as noted above. (For examples of passivization switching discourse topics, see (90) and (107) in this chapter.) Because the predicates in (86) are neither passivized nor affixed by the topical object marker, the subjects in the interpretations (a-d) correspond straightforwardly

<sup>23</sup> *Qvlqvl-ts-mín'* 'to swear at (tr)' here and throughout represents the Fountain pronunciation; Mount Currie speakers retract and glottalize the lexical suffix *-ts* 'mouth; language', as noted in §1.3.2.

to topics, and objects to non-topics. As indicated, the preferred interpretation is the one in which 'Mary' and the coreferent null pronominal are the topics of their clauses (a). The other interpretations (b-d) differ in this respect, and are dispreferred. Reading (b), with 'Mary' and the coreferent null pronominal as non-topics, is also allowed for some speakers, and was the first translation offered for (86) by AA, presumably in accord with her fairly strict VOS order.<sup>24</sup>

Data like those in (85) and (86) suggest that St'át'imcets is subject to the following restriction (Matthewson 1993a: 20-21; cf. Matthewson et al. 1993: 228):

(87) Parallelism Constraint on Discourse Functions (PC)

For two items to corefer, they must both fulfill the same discourse function (either topic of the discourse or non-topic). In addition, there is a preference for both coreferential elements to fulfill the topic of the discourse function.

Constraint (87) can be observed in the two other NIS languages, Nla'kapmxcín and Secwepemctsin (Matthewson et al. 1993: 228-230), and a similar parallelism restriction obtains in Nuxalk (Bella Coola), another Salish language (Davis and Saunders 1984).

It should be noted that some idealization of the data is necessary in order to accept (87). The starred interpretations in sentences like (85), and in the remaining sentences of this section, are ungrammatical only for RW. For the other consultants (AA and GN)<sup>25</sup>, the interpretations marked by the asterisk (\*) should be taken only as less obvious and mildly dispreferred. When translating the sentences in this section into English, for example, these consultants spontaneously provide glosses in accord with (87), but will concede that the non-parallel reading is possible if prompted for it.

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<sup>24</sup> AA prefers the only the determiner *k* in front of the proper noun, and also a progressive auxiliary inside the relative clause, which requires the enclitic *-a* portion of the discontinuous determiner to drop.

(i) ts'um'-qs-án'-as k Mary ta sqáycw-a ta wa7 xwís-as  
 lick-nose-tr-3erg det Mary det man-det det prog love-3sg.conj

<sup>25</sup> BF shares the same judgments as AA and GN. Thanks to Henry Davis for checking these data with her.

The parallelism constraint is expected to hold across conjuncts if one conjunct has two overt NPs. This is indeed the case, as (88-89) show:

- (88) áts'x-en-as nilh s-qvlqvl-ts-mín'-as kw-s John kw-s Bill<sup>26</sup>  
*see-tr-3erg conj nom-bad-mouth-appl-3sg.conj det-nom John det-nom Bill*  
 a. 'he<sub>i</sub> saw him<sub>j</sub>, and then {Bill<sub>i</sub> swore at John<sub>j</sub>/\*John<sub>j</sub> swore at Bill<sub>i</sub>}'  
 b. \*'he<sub>j</sub> saw him<sub>i</sub>, and then {Bill<sub>i</sub> swore at John<sub>j</sub>/John<sub>j</sub> swore at Bill<sub>i</sub>}'  
 (AA, GN, RW 1597)
- (89) áts'x-en-as kw-s John kw-s Bill nilh s-qvlqvl-ts-mín'-as  
*see-tr-3erg det-nom John det-nom Bill conj nom-bad-mouth-appl-3sg.conj*  
 a. 'Bill<sub>i</sub> saw John<sub>j</sub>, and then {he<sub>i</sub> swore at him<sub>j</sub>/\*he<sub>j</sub> swore at him<sub>i</sub>}'  
 b. \*'John<sub>j</sub> saw Bill<sub>i</sub>, and then {he<sub>j</sub> swore at him<sub>i</sub>/he<sub>i</sub> swore at him<sub>j</sub>}'  
 (AA, GN, RW 1596)

Recall from chapter 1 that the preferred word order in elicitation is VOS, especially in sentences like these, in which only the word order (not animacy requirements of the predicate) is available to disambiguate the grammatical roles of the overt NPs. This word-order preference immediately accounts for the ungrammaticality of interpretation (b) for (88), since it would require VSO order in the second conjunct. Interpretation (a), however, respects the VOS order of the second conjunct ('Bill swore at John') and—as expected in accord with (87)—imposes parallelism on both conjuncts, so that the subject of *qvlqvl-ts-mín'* 'to swear' (viz., 'Bill') must also be the subject of *áts'x-en* 'to see'.

Sentence (89) differs from (88) only in that the two overt NPs are in the first conjunct, rather than in the second. The same point is illustrated here: interpretation (b) is not allowed, since it would require VSO order; rather, the VOS interpretation of (a) is preferred for the first conjunct ('Bill saw John'), in which case the interpretation of the second conjunct must

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<sup>26</sup> Here and throughout this chapter, the cited forms are the ones that originate from GN and RW (Fountain speakers). Although AA and sometimes LT are cited with each form as one of the consultants, the sentences that they examined differed minimally in that proper nouns were preceded by either the determiner *k(w)* alone or the nominalizer *-s* alone, but never by both together, as are the proper nouns in this sentence. It is hard to be sure what characterizes this variation between speakers; see §1.3.2 for further examples and discussion.

have a null pronominal subject coindexed with the subject of the first conjunct.<sup>27</sup> An interpretation in which the object of the first conjunct is the subject of the second conjunct ('John swore at Bill') is ungrammatical, although this reading in (89a) can be saved with a passivized predicate in the second conjunct, as exemplified below:

- (90) áts'x-en-as kw-s John kw-s Bill nilh s-qvlqvl-ts-mín'-em  
*see-tr-3erg det-nom John det-nom Bill conj nom-bad-mouth-appl-pass*  
 'Bill<sub>i</sub> saw John<sub>j</sub>, and then he<sub>i</sub> was sworn at by him<sub>j</sub>'  
 (AA, GN, RW 1596)

Another example of passivization switching discourse topics is in (107) below. Note that the ungrammatical interpretation in (89a) cannot similarly be saved by affixation of the topical object marker *-tali*; such a sentence is ungrammatical under any reading:

- (91) \*áts'x-en-as kw-s John kw-s Bill nilh s-qvlqvl-ts-mín'-tali  
*see-tr-3erg det-nom John det-nom Bill conj nom-bad-mouth-appl-TO*  
 (AA 1596)

Although *-tali* is a cognate of the reflexes of Kinkade's (1989: 38) Proto-Salish *\*-wali*, the St'át'imcets cognate appears only in extraction contexts (Matthewson 1993a: 4-5). This was noted with respect to examples (38-39) in chapter 2 (p. 22). Consider also the passive sentence (22) in chapter 1 (p. 10), repeated below as (92):

- (92) nilh t'u7 s-e-s k'al'-em-mín-em ti syáqts7-a  
*foc part nom-prog-3sg.poss wait-intr-appl-pass det woman-det*  
 'he is being waited for by the woman'  
 (LT 2330)

The equivalent sentence with *-tali* is ungrammatical, precisely because there is no extraction:

- (93) \*nilh t'u7 s-e-s k'al'-em-mín-tali ti syáqts7-a  
*foc part nom-prog-3sg.poss wait-intr-appl-TO det woman-det*  
 'he is being waited for by the woman'  
 (LT 2430)

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<sup>27</sup> LT, who often has VSO order in elicitation, allows interpretation (a) like the other speakers, but additionally permits the reading of (b) which has parallelism, 'John<sub>j</sub> saw Bill<sub>i</sub>, and then he<sub>j</sub> swore at him<sub>i</sub>'.

### 3.3.1.2. Interaction with the one-nominal interpretation law

The remaining class of sentences with two transitive conjuncts are those that contain a single NP in one or both of the conjuncts. Recall from chapter 1 (p. 10) that St'át'imcets is subject to a rule of one-nominal interpretation (23), repeated for convenience in (94):

(94) One-Nominal Interpretation Law (ONO)

In the absence of marking for other persons, a single 3rd person nominal is interpreted as the absolutive.

That is to say, in sentences having a single NP and only third-person morphology on the predicate, the NP is interpreted as absolutive, i.e., as the only argument (subject) of an intransitive predicate, or as the direct object of a transitive predicate.

The one-nominal interpretation law can be seen to apply in the following sentence:

- (95) áts'x-en-as kw-s John nilh s-qvlqvl-ts-mín'-as  
see-tr-3erg det-nom John conj nom-bad-mouth-appl-3sg.conj  
a. 'he<sub>i</sub> saw John<sub>j</sub>, and then {he<sub>i</sub> swore at him<sub>j</sub>/\*he<sub>j</sub> swore at him<sub>i</sub>}'  
b. \*'John<sub>j</sub> saw him<sub>i</sub>, and then {he<sub>j</sub> swore at him<sub>j</sub>/he<sub>i</sub> swore at him<sub>j</sub>}'  
(AA, GN, LT, RW 1598)

The (b) interpretation is excluded because there is a single NP ('John') in the first conjunct, which must be interpreted as the absolutive, i.e., as the direct object. Because (95) can only be grammatical when 'John' is the object of the first conjunct, the null pronominal object of the second conjunct in such a case must likewise corefer with the object 'John' of the first conjunct, in accord with the parallelism constraint (87).

The obvious question that arises with a constraint like parallelism is whether it interacts with the one-nominal interpretation rule, since it is possible for the parallelism constraint and the one-nominal interpretation law to impose conflicting demands in a single sentence. The relevant context is a sentence having a single overt NP in each conjunct, i.e., structures of the following form, where *pro* marks a null pronominal argument, and NP<sub>i</sub> is not coreferent with NP<sub>j</sub> (the order of elements within brackets is irrelevant):

(96) [<sub>S</sub> . . . pred . . . NP<sub>i</sub> . . . pro . . . ] conj [<sub>S</sub> . . . pred . . . NP<sub>j</sub> . . . pro . . . ]

Sentences having this form might be expected to be ungrammatical, or at least dispreferred, since—no matter what interpretation is assigned to them—a constraint will be violated. If {NP<sub>i</sub>, NP<sub>j</sub>} are both direct objects in (96), the one-nominal law will be satisfied, but parallelism will be violated. On the other hand, if {NP<sub>i</sub>, NP<sub>j</sub>} bear different GFs or discourse functions, parallelism will be satisfied (assuming also the appropriate indexing of *pro* in each conjunct), but the one-nominal law will be violated.

A sentence having the structure of (96) is given in (97); rather than being dispreferred, it does have a unique grammatical interpretation:

(97) áts'x-en-as kw-s John nilh s-qvlqvl-ts-mín'-as kw-s Bill  
*see-tr-3erg det-nom John conj nom-bad-mouth-appl-3sg.conj det-nom Bill*  
 a. 'he<sub>i</sub> saw John<sub>j</sub>, and then (i) he<sub>j</sub> swore at Bill<sub>i</sub>/(ii) \*Bill<sub>i</sub> swore at him<sub>j</sub>'  
 b. \*'John<sub>j</sub> saw him<sub>i</sub>, and then (i) he<sub>j</sub> swore at Bill<sub>i</sub>/(ii) Bill<sub>i</sub> swore at him<sub>j</sub>'  
 (AA, GN, RW 1593)

That (97) has a grammatical interpretation at all is striking, since it illustrates that the parallelism constraint (87)—whatever its structural interpretation might be—is violable. Specifically, it may be violated when such violation leads to the satisfaction of the one-nominal interpretation law.

The relatively low ranking of the parallelism constraint (87) expresses two generalizations about coreference across transitive conjuncts in St'át'imcets, the most obvious of which is that, for all but one consultant, parallelism is merely a preference; speakers permit interpretations that violate it, even in sentences about which the one-nominal interpretation law has nothing to say. More importantly, however, it captures the difference between the grammars of different consultants. Given only sentence (85), for example, it is unusual that violations of parallelism should be ungrammatical for a single consultant, but possible for the others. However, sentences like (97)—in which parallelism and the one-nominal law impose conflicting demands—show that PC is violable even for the more restrictive consultant, who would otherwise appear to have a grammar different from other speakers of the same

language. (97) therefore reveals that all of these speakers share the dominant ranking of the one-nominal interpretation law.

One way of encoding the relationship between these constraints is to employ the formalism of Optimality Theory (Grimshaw 1993; Prince and Smolensky 1993), which hypothesizes that grammatical constraints are in principle violable, and that minimal violation is allowed when it leads to the satisfaction of higher-ranked constraints. Although the formalism of this theory is useful for explicating the coreference data of St'át'imcets, it is used merely for expository convenience, and it has nothing of interest to say about the nature of these constraints, whose interpretations are tied to syntactic structures (examined in §4.3).

Because the one-nominal constraint has precedence over the parallelism constraint in evaluating whether a given interpretation is grammatical, the former is ranked above the latter, as formalized in (98), where  $> >$  is interpreted as 'dominates':

(98)  $ONO > > PC$

Each possible interpretation of (97) is a member of the 'candidate set', and is evaluated with respect to its satisfaction of each constraint. Following the conventions of Grimshaw (1993), each candidate is listed next to the set of constraints, where left-to-right order reflects their ranking. Each occurrence of an asterisk (\*) before a constraint indicates a single violation of that constraint; lack of such a mark indicates that the constraint is satisfied or irrelevant. The optimal candidate—which is the grammatical interpretation—is identified by the dollar sign (\$). (97) is therefore evaluated as follows:

(99) *áts'x-en-as kw-s John nilh s-qvlqvl-ts-mín'-as kw-s Bill* (=97)

- |    |   |           |           |    |
|----|---|-----------|-----------|----|
| a. | 'he <sub>i</sub> saw John <sub>j</sub> , and then he <sub>j</sub> swore at Bill <sub>i</sub> .'   | (=97a.i)  | ONO *PC   | \$ |
| b. | 'he <sub>i</sub> saw John <sub>j</sub> , and then Bill <sub>i</sub> swore at him <sub>j</sub> .'  | (=97a.ii) | *ONO PC   |    |
| c. | 'John <sub>j</sub> saw him <sub>i</sub> , and then he <sub>j</sub> swore at Bill <sub>i</sub> .'  | (=97b.i)  | *ONO PC   |    |
| d. | 'John <sub>j</sub> saw him <sub>i</sub> , and then Bill <sub>i</sub> swore at him <sub>j</sub> .' | (=97b.ii) | **ONO *PC |    |

Notice that the total number of constraint violations is not relevant to the evaluation of candidates. The candidates (a-c) each have a single constraint violation, yet only one of them

(a) is grammatical. The fact that candidates (b-c) satisfy PC is not sufficient, since it is better to satisfy the higher-ranked ONO, even if it requires that the lower-ranked PC be violated, as it is in (a). The contrast between (a) and (b-c) illustrates a clash between competing constraints, and shows that the conflict is indeed resolved in accord with the ranking in (98).

A slight complication arises with the sentence in (100). As indicated in the glosses, there are two grammatical interpretations of this sentence. However, as the constraint tableau in (101) shows, one reading (c) should be preferred over the other (a):

- (100) áts'x-en-as nilh s-qvlqvl-ts-mín'-as kw-s Bill  
*see-tr-3erg conj nom-bad-mouth-appl-3sg.conj det-nom Bill*  
 a. 'he<sub>i</sub> saw him<sub>j</sub>, and then (i) he<sub>j</sub> swore at Bill<sub>i</sub>/(ii) \*Bill<sub>i</sub> swore at him<sub>j</sub>'  
 b. 'he<sub>j</sub> saw him<sub>i</sub>, and then (i) he<sub>j</sub> swore at Bill<sub>i</sub>/(ii) \*Bill<sub>i</sub> swore at him<sub>j</sub>'  
 (AA, GN, LT, RW 1594)

(101) áts'x-en-as nilh s-qvlqvl-ts-mín'-as kw-s Bill (=100)

- |    |  |                                     |            |          |    |
|----|--|-------------------------------------|------------|----------|----|
| a. | 'he <sub>i</sub> saw him <sub>j</sub> , and then he <sub>j</sub> swore at Bill <sub>i</sub> '  | <input checked="" type="checkbox"/> | (=100a.i)  | ONO *PC  |    |
| b. | 'he <sub>i</sub> saw him <sub>j</sub> , and then Bill <sub>i</sub> swore at him <sub>j</sub> ' |                                     | (=100a.ii) | *ONO PC  |    |
| c. | 'he <sub>j</sub> saw him <sub>i</sub> , and then he <sub>j</sub> swore at Bill <sub>i</sub> '  | <input checked="" type="checkbox"/> | (=100b.i)  | ONO PC   | \$ |
| d. | 'he <sub>j</sub> saw him <sub>i</sub> , and then Bill <sub>i</sub> swore at him <sub>j</sub> ' |                                     | (=100b.ii) | *ONO *PC |    |

The checkmark (☒) indicates the interpretations that GN and RW allow. Candidates (b, d) are correctly excluded as ungrammatical, since they violate the highly-ranked ONO, but candidate (a) is wrongly excluded, since it violates PC. Candidate (c) does not violate any constraints. It should be determined whether reading (c) is preferred over that of (a); if so, the tableau in (101) correctly predicts a gradation in grammaticality. Note, however, that in checking this sentence with AA and LT, interpretation (c) was uniquely grammatical, and interpretation (a) was not allowed, in accord with the candidate evaluation in (101). Grammaticality judgments for these sentences are subtle, and it is likely that the data concerning this point will continue to vary across speakers and across elicitation sessions.

The constraint-ranking motivated above accords with the fact that the one-nominal interpretation law is a salient property of St'át'imcets grammar, applying generally throughout the language, in simple sentences as well as in compound and complex ones. Having established that this is the case, it remains to be explained. Of course, it will likely remain

unexplained why the parallelism constraint has varying importance across speakers, although it accords with Dixon's (1979: 129) statement, quoted above on page 41, that '... processes such as coördination [= conjunction] may not operate in terms of well-defined constraints. . . [S]ome languages . . . have more fluid conditions . . . [F]or instance, coördination may largely follow semantic, stylistic, or discourse-organization preferences, rather than conforming to any strict syntactic matrix.' St'át'imcets conjunction takes on yet more of this character in the next section, which examines intransitive conjuncts.

A table summarizing the various combinations of null and overt NPs and their coreference possibilities across transitive conjuncts is given in (152) in chapter 4 (p. 82).

### 3.3.2. Intransitives

This section is divided into two parts: §3.3.2.1 examines data that have an intransitive predicate in the first conjunct, and §3.3.2.2. presents data that have an intransitive predicate in the second conjunct.

#### 3.3.2.1. Intransitive in first conjunct

If subject of intransitive (S) is in the same structural position as subject of transitive (A), both S and A might be expected to pattern alike with regard to the parallelism constraint (87). Consider in this respect the sentence in (103), which is prefaced by the context in (102):

(102) wa7 k'ál'-em kw-s John  
*prog wait-intr det-nom John*  
 'John<sub>j</sub> is waiting'

(103) p'an't kw-s Bill nilh s-7áts'x-en-as  
*return det-nom Bill conj nom-see-tr-3sg.conj*  
 'Bill<sub>i</sub> returned and (i) he<sub>i</sub> saw him<sub>j</sub>/(ii) \*he<sub>j</sub> saw him<sub>i</sub>'

(AA, GN, RW 1586)

The second conjunct of (103) does not have any overt nominals, and so the one-nominal interpretation law (94) is not implicated here. For this sentence, all speakers<sup>28</sup> interpret the second conjunct in accord with parallelism, suggesting that A and S are indeed in the same position. However, consider (104) below, which is complicated by the addition of a single NP in the second conjunct.

- (104) p'an't kw-s Bill nilh s-7áts'x-en-as kw-s John  
*return det-nom Bill conj nom-see-tr-3sg.conj det-nom John*  
 'Bill<sub>i</sub> returned and (i) he<sub>i</sub> saw John<sub>j</sub>/(ii) ?John<sub>j</sub> saw him<sub>i</sub>'  
 (AA, GN, RW 1584)

Reading (i) was spontaneously volunteered by all speakers as a translation of (104), although reading (ii) was unexpectedly accepted by GN and RW after it was suggested to them (in violation of the one-nominal interpretation law). The same judgments are given by BF (Henry Davis, p.c.). For one speaker, AA, reading (ii) is ungrammatical, as expected, given the high ranking of the one-nominal interpretation law demonstrated in §3.3.1.2.

It is not clear why several speakers would accept interpretation (ii) for (104), especially since a sentence having the same structure, but with different names, was on two occasions interpreted by GN and RW as expected. The context for (106) is (105):

- (105) wa7 k'ál'-em kw-s Mary  
*prog wait-intr det-nom Mary*  
 'Mary<sub>j</sub> is waiting'
- (106) p'an't kw-s Bill nilh t'u7 s-áts'x-en-as kw-s Mary  
*return det-nom Bill conj part nom-see-tr-3sg.conj det-nom Mary*  
 'Bill<sub>i</sub> returned and (i) he<sub>i</sub> saw Mary<sub>j</sub>/(ii) \*Mary<sub>j</sub> saw him<sub>i</sub>'  
 (AA, GN, RW 1392)

In (106), the one-nominal interpretation rule pressures 'Mary' in the second conjunct to be the direct object, thus excluding the reading in (ii). This reading can be saved, however, if the predicate is passivized:

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<sup>28</sup> Except BF and LT, who accept both interpretations (i) and (ii). Thanks to Henry Davis for checking this point with BF.

- (107) p'an't kw-s Bill nilh t'u7 s-áts'x-en-em s-Mary  
*return det-nom Bill conj part nom-see-tr-pass nom-Mary*  
 'Bill<sub>i</sub> returned and he<sub>i</sub> was seen by Mary<sub>j</sub>'

(AA, GN, RW 1393)

Another example of passivization switching discourse topics is given above in (90); cf. also (21-22) in chapter 1 (p. 10). The fact that passivization is needed in (107) in order to permit an interpretation that is excluded by the one-nominal rule suggests that ONO indeed holds strongly throughout the corpus. It would be worthwhile to recheck the problematic interpretation in (104ii), though.

### 3.3.2.2. Intransitive in second conjunct

The final set of sentences to be considered has an intransitive predicate in the second conjunct. These sentences are again prefaced by the context in (84), repeated for convenience here in (108). The easiest sentences to consider are those in (109-110), which have a single overt nominal in one conjunct or the other. As expected, their possible interpretations are strongly determined by the one-nominal interpretation law:

- (108) Pz-án-twal' wi s-Bill múta7 s-John. Wa7 wi7 cmán'-twal'-wit.  
*meet-tr- recip pl nom-Bill conj nom-John prog emph enemy- recip-3pl.su*  
 'Bill<sub>i</sub> and John<sub>j</sub> met each other. They're enemies.'

- (109) qvlqvl-ts-mín'-as kw-s John nilh s-qwatsáts kw-s Bill  
*bad-mouth-appl-3erg det-nom John conj nom-leave det-nom Bill*  
 a. 'he<sub>i</sub> swore at John<sub>j</sub>, and then (i) Bill<sub>i</sub>/(ii) \*he<sub>j</sub> left'  
 b. \*'John<sub>j</sub> swore at him<sub>i</sub>, and then {Bill<sub>i</sub>/he<sub>j</sub>} left'

(AA, GN, RW 1589)

- (110) qvlqvl-ts-mín'-as kw-s John nilh s-qwatsáts  
*bad-mouth-appl-3erg det-nom John conj nom-leave*  
 a. 'he<sub>i</sub> swore at John<sub>j</sub>, and then he<sub>i</sub>/\*<sub>j</sub> left'  
 b. \*'John<sub>j</sub> swore at him<sub>i</sub>, and then he<sub>i</sub>/<sub>j</sub> left'

(AA, GN, LT, RW 1590)

The (b) glosses in each of (109-110) are excluded because they violate the rule of one-nominal interpretation, which requires 'John' to be the direct object, as it is in the (a) readings. The second conjunct of (109) must have 'Bill' as subject of the intransitive predicate, since it is an

overt NP. When the overt NP is absent from the second conjunct, though, as it is in (110), coreference for the null subject pronominal is apparently determined by the parallelism constraint, under the assumption that S and A are in the same structural position. It is important to note, though, that the judgments in (110a) are those of GN and RW only; parallelism is not as strong a tendency here for AA, who accepts both interpretations in (110a).

The sentence in (111) has both arguments of the transitive conjunct realized by overt NPs. Both VOS (a) and VSO (b) interpretations are accepted by GN and RW, while AA—who is more strict in requiring VOS order—regards interpretation (b) as ungrammatical:

- (111) qvlqvl-ts-mín'-as      s-John      s-Bill      nilh      s-qwatsáts  
*bad-mouth-appl-3erg   nom-John   nom-Bill   conj   nom-leave*  
 a. 'Bill<sub>i</sub> swore at John<sub>j</sub>, and then he<sub>i/?j</sub> left'  
 b. 'John<sub>j</sub> swore at Bill<sub>i</sub>, and then he<sub>j/\*i</sub> left'

(AA, GN, RW 1592)

All consultants accept both coreference possibilities indicated in (a), in violation of the parallelism constraint (if A and S indeed occupy parallel positions in syntactic structure), although the first of these readings, with the null pronominal S coreferent with the overt transitive subject 'Bill', was spontaneously offered by RW as a translation for (111). Moreover, during the most recent elicitation, the parallel interpretation was in fact preferred by both GN and RW to the non-parallel one. On these grounds, then, the former interpretation can perhaps be taken as preferred to the reading in which the null pronominal S is coreferent with the O of the first conjunct.

Consider finally a sentence in which there are no overt NPs in either conjunct:

- (112) qvlqvl-ts-mín'-as      nilh      s-qwatsáts  
*bad-mouth-appl-3erg   conj   nom-leave*  
 'he<sub>i</sub> swore at him<sub>j</sub>, and then he<sub>i/j</sub> left'  
 'he<sub>j</sub> swore at him<sub>i</sub>, and then he<sub>i/j</sub> left'

(AA, GN, RW 1591)

All consultants have said at various times that all readings are possible in a structure like (112), violating parallelism. Most recently, GN and RW even reject (112) as 'incomplete' (not merely ambiguous) and ungrammatical; the perceived incompleteness of (112) is difficult

to explain, given a discourse context like (108) having enough overt NPs that could plausibly be coreferent with the null pronominals in (112).

The conclusion to be drawn concerning coreference between conjuncts having an intransitive predicate is that the one-nominal interpretation law holds strongly, as it does across transitive conjuncts, but that parallelism is at best a tendency.

### 3.4. Summary

Coreference across conjuncts is neither ergative nor accusative in St'át'imcets. It is most strongly constrained by the one-nominal interpretation law (94), and the data that are presented in §§3.3.1.2-3.3.2 in support of this point further establish ONO as a salient property of the grammar of St'át'imcets. Parallelism (87) imposes a secondary, but otherwise fairly strong, constraint on coreference across transitive conjuncts. In sentences in which one conjunct is intransitive, though, PC does not hold strongly (if at all), and the grammaticality of the relevant sentences is more difficult to establish firmly and consistently. This conclusion is consistent with that of Matthewson (1993a), who found that intransitive subjects patterned with transitive subjects only across discourse, not intrasententially. The data in this chapter involve only intrasentential coreference, and so the failure of parallelism to hold for intransitive subjects is not unexpected. An important question is therefore how to capture the asymmetric behaviour of transitive and intransitive conjuncts with regard to coreference possibilities. Just as in chapter 2, the facts presented here again present a problem for a theory that treats A and S together as members of the category 'subject', e.g., Anderson (1976) and Keenan and Comrie (1977: 80 ff.). However, while chapter 2 showed that S and O pattern alike with respect to relativization (in opposition to A), this chapter establishes that each of {A,S,O} shows distinct behaviour in coreference across conjuncts, and so conjunction cannot be said to have either an ergative or an accusative pivot.

It should be stressed that in having a parallelism constraint that applies only to transitive conjuncts, St'át'imcets is not unusual. In examining a similar range of facts in English, Oehrle (1981) comes to nearly identical conclusions. Oehrle's propositional

congruence (his 'rule R'), though, requires additionally that the predicates in each clause be identical and that the rule apply with a specific intonation.<sup>29</sup> Oehrle notes that having an intransitive predicate in one conjunct makes the reference of its subject difficult to establish in isolation (because the different predicate disrupts the congruence across conjuncts), although its reference is easy to establish unambiguously if there is an appropriate discourse context. That these generalizations appear to hold across languages as seemingly disparate as English and St'át'imcets, in rather complex constructions requiring subtle intuitions about their ambiguity and grammaticality, strongly suggests that the parallelism constraint—whatever its ultimate explanation—is a plausible candidate for Universal Grammar.

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<sup>29</sup> The intonational properties of sentences in this chapter have not been studied, and so it is possible that some of the seemingly problematic data are due to misunderstood prosodic properties of the utterances.

## Chapter 4

### Structural Asymmetries

#### 4.1. Introduction

This chapter shows that the various asymmetric behaviours of subjects in St'át'imcets, as described in chapters 2 and 3, may be given a structural explanation within the broader Principles and Parameters framework of Chomsky (1981; 1982; 1986; 1992; etc.). Section 4.2 addresses the one-nominal interpretation law, §4.3 examines the appearance of parallelism on pronominal coreference across conjuncts, and §4.4 derives the restriction that ergatives, unlike absolutes, cannot be directly relativized. Unifying all of these accounts is the idea—independently motivated and proposed to account for facts in other languages—that NPs that are topics are structurally higher than NPs that are focused.<sup>30</sup>

The terms 'topic' and 'focus' have been used with different meanings in the literature, a full discussion of which is beyond the scope of this thesis. Consult the essays in Li (1976) and the more recent works cited throughout this chapter for some background. To give rigid definitions of topic and focus here would not serve well the purpose of this chapter, which crucially assumes only that, however topic and focus are defined, the NP representing the former is higher in constituent structure than the NP representing the latter. Nevertheless, before turning to the particular analyses, it will be worthwhile to have some general definitions.

Reinhart (1981: 57-58) identifies two major approaches to topic-hood. One approach defines the topic as the noun phrase whose referent a particular sentence is about, and the other defines the topic as the old information in the discourse. Reinhart argues for the former approach ('pragmatic aboutness'), and suggests the following test for topic-hood (Erteschik-Shir 1993: 1; 22, §4):

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<sup>30</sup> The idea to apply this structural asymmetry to an analysis of St'át'imcets is due generally, and in each specific case examined below, to Henry Davis and Hamida Demirdache. (The particular structures given below were suggested by Henry Davis.) This chapter could not have been written without their help.

(113) Topic test

Speaker A: Tell me about X

Speaker B: . . . X . . . (X = topic)

In speaker B's answer to A's question, X is the topic, since B is telling A about X. The topic is therefore the referent or subject that is presupposed in the discourse.

The unmarked topic of the discourse is usually the grammatical subject of a sentence, as has been noted by (among others) Erteschik-Shir (1993: 27, §5; 45, §6.3.1), Kinkade (1989: 1), Matthewson (1993a: 4-5), and Reinhart (1981: 62). This canonical mapping of subject to topic can of course be altered by special morphology, phonology, syntax, or by whatever else a language might use to alter the topic-focus relation, and examples from St'át'imcets will be seen below in (150, 181) (pp. 81, 100). Erteschik-Shir (1993: 45, §6.3.1) refers to this mapping as the topic constraint, and it is formalized for the purpose of this thesis as follows:<sup>31</sup>

(114) Topic Constraint

\* TOP<sub>i</sub> [ SUBJECT [<sub>VP</sub> . . . NP<sub>i</sub> . . . ]]

The topic constraint does not exclude overt (S-structure) topicalization (e.g., *Fred<sub>i</sub>, I like t<sub>i</sub>*) nor left-dislocation (e.g., *Fred<sub>i</sub>, I like him<sub>i</sub>*); rather, the topic constraint merely maps syntactic positions to discourse functions at a level of derivation beyond S-structure, here assumed to be logical form (LF). Because this chapter will adopt a version of the VP-internal subject hypothesis, it is necessary to revise the topic constraint as in (115), in order that the subject of a clause may be base-generated in Spec/VP and still be mapped to topic:

(115) Topic Constraint (revised)

\* TOP<sub>i</sub> [ SUBJECT [<sub>V'</sub> . . . NP<sub>i</sub> . . . ]]

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<sup>31</sup> The topic constraint captures a valid cross-linguistic generalization, though it has apparently never been derived. Its explanation may be related to the fact that subjects are always generated higher than objects, though the question is beyond the scope of this thesis.

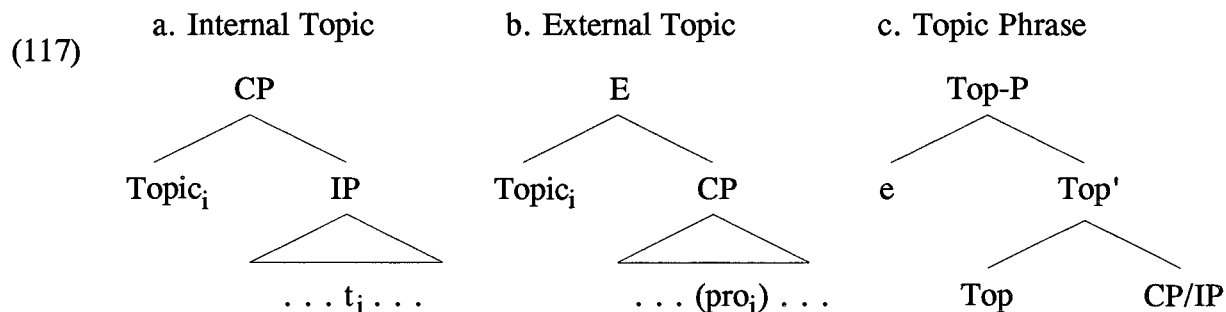
The revised topic constraint (115), but not (114), permits well-formed structures such as (162, 168) below (pp. 89, 92), in which a trace in VP-internal subject position is coindexed with the topic.

The topic constraint forbids the object from being the topic, but as a negative constraint it does not specifically compel the subject to be the topic. Consider, however, that the topic is generally regarded as being in an A'-position, hence operator-like; see, for example, the sentences in (140, 146) below (pp. 74, 78). The ban on vacuous quantification (Chomsky 1982: 11-13) would exclude a sentence like the following, since the topicalized NP does not bind anything in the sentence:

(116) \*Fred, I like her

The ban on vacuous quantification conspires with the topic constraint (115) to ensure that the subject and topic are coindexed. Specifically, if the topic and object are coindexed, the topic constraint (115) is violated. Although the topic constraint will be satisfied if the topic does not bind any NP in the sentence, such quantification would be vacuous. Therefore, a well-formed structure is derived only when the topic and subject are coindexed. The mapping of subject to topic that emerges from the interaction of the topic constraint (115) and the ban on vacuous quantification can be satisfied either by LF movement of the subject to topic position, or by coindexation of a discourse topic with a null pronominal subject. Both options will be exemplified in this chapter.

The next question to be addressed concerns the syntactic position of the topic, some recent proposals for which are illustrated below:



Aissen (1992: 47) suggests that Mayan languages have two topic positions, one for an internal topic, which is in Spec/CP (117a), and another for an external topic, which is prefixed to an entire clause CP under a node labeled E (117b). The internal topic position is a landing site for movement of a topic from within the sentence, while the external topic position contains a base-generated topic that may be coindexed with a pronominal within the sentence. The node E in (117b) is an abbreviation for Expression, which Aissen (1992: 47) adopts from Banfield (1973: 14 ff.) and Emonds (1985: 316 ff.). The final structure (c) represents the topic phrase structure of Chomsky (1977: 91) in X-bar theoretic terms; it shares with the external topic (b) the property of being the highest element in any sentence. Top is the head of the maximal projection Top-P, and the NP that is the topic—because it is a maximal projection—appears in specifier position. The topic NP may be overt, as in the case of S-structure topicalization, or it may be non-overt, as it is in (c). In this diagram, a null topic *e* occupies Spec/Top-P, and in such a case its reference would be determined by discourse.<sup>32</sup>

It is not clear which structure in (117) is appropriate for St'át'imcets. Gardiner (1993: 125-138, §3.1) motivates an external topic position for Secwepemcetsín on the basis of word order, the position of clitics, and the possibility of doubling an argument with a deictic. However, because the data to be examined below require both sentential topics (which are mapped at LF from overt NPs) and discourse topics (which are coreferential with NPs outside of the sentence), neither the internal nor the external topic position in (117a, b) seems appropriate. Instead, the topic phrase structure of (117c) is adopted here because it is broad enough to subsume both sentential topics and discourse topics. Other structures for representing topics could be accommodated by the analysis here, though the only crucial (and uncontroversial) requirement of the representation of topic is that it be structurally higher than the non-topic/focus of a sentence—which is examined next.<sup>33</sup>

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<sup>32</sup> Another structure that is not considered here, suggested by Authier (1992) and Watanabe (1992), is that the topic appears in specifier position of a recursive CP.

<sup>33</sup> The possibility of there being multiple topics in a single discourse is excluded from this analysis. Although there might be more than one topic in the discourse, the notion of topic that is considered here is that of topic of a sentence, i.e., the single NP which the sentence is about or is predicated of (in the sense of Erteschik-Shir 1993 and Reinhart 1981).

The focus of a sentence introduces a new referent or proposition into the discourse (Calabrese 1990: 12), and so a common test for a focused constituent is to determine whether it may answer a *wh*-question. In the following examples, the capitalized constituent is the focused constituent corresponding to the *wh*-word:

- (118) a. What did John do? John ATE THE APPLE.  
 b. What did John eat? John ate THE APPLE.  
 c. Who ate the apple? JOHN ate the apple.

(Erteschik-Shir 1993: 23, §4)

The focus is often identified phonologically as the stressed element, but a syntactic correlation that has been observed in intonationally unmarked sentences is that a focused NP typically appears within the verb phrase, usually as the object (Calabrese 1990: 4; Diesing 1992: 49-53; Matthewson 1993a: 4).

Heim (1988) claims that the logical representation of a sentence with quantified NPs has a tripartite structure that includes the quantifier, restrictive clause, and nuclear scope. The quantifier has scope over variables in the restrictive clause, while unbound variables in the nuclear scope get bound by 'existential closure', which is the presence of a covert existential quantifier. In theories that attempt to derive such logical representations from syntactic structures, the division between the restrictive clause and the nuclear scope is drawn near the VP (Erteschik-Shir 1993; Diesing 1992: 9-10, 49-53; Partee to appear: 5). Further, as argued by Erteschik-Shir (1993) and Partee (to appear), and as suggested by Diesing (1992), the nuclear scope contains the focus. The topic and non-topic/focus constituents therefore appear in the following structural relation, (119a) representing Erteschik-Shir and Partee's proposal, and (119b) representing Diesing's:

- (119) a. [CP topic [VP focus ]]  
 b. [CP topic [VP non-topic ]]

The lower node that contains the focus is identified here as VP for the sake of concreteness, following the aforementioned authors, although the split between the restrictive clause and the

nuclear scope could be made at some other node without consequences for the present analysis. Aissen (1992: 47) and Uechi (1994), for example, put the domain of focus as high as IP. Common to all approaches, however, is that the topic is higher than the focus or non-topic, and this is similarly the only crucial relation that is needed here.

#### 4.2. The one-nominal interpretation law as focus

This section gives a structural interpretation of the one-nominal interpretation law (Gerdt 1988: 59), cited in (23) in chapter 1 and (94) in chapter 3, and repeated below:

##### (120) One-Nominal Interpretation Law (ONO)

In the absence of marking for other persons, a single 3rd person nominal is interpreted as the absolutive.

When the predicate is intransitive, a single 3rd person nominal must be interpreted as absolutive, since the predicate takes a single argument. What (120) leaves unexplained is why the same fact obtains when the predicate is transitive, since the nominal might just as easily be interpreted as the subject. In the following sentence, for example—repeated from (20) of chapter 1 (p. 10)—the single overt nominal is uniquely interpreted as the object.

- (121) áts'x-en-as    ta    sqáycw-a  
          *see-tr-3erg    det    man-det*  
          'he saw the man'

(AA, BF, GN, LT, RW 29)

(121) may not be interpreted as 'the man saw him'. This restriction may be structurally encoded given the reasonable assumption that NPs will not appear overtly in a sentence if their referents are presupposed in the discourse. As discussed in §1.3.1, St'át'imcets is a radical head-marking language (Davis 1993b: §2), which entails both subject and object *pro*-drop (these arguments being marked by pronominal affixes on the predicate that selects them). Because of this rich subject and object agreement, overt NPs are optional. The following example is repeated from (3) of chapter 1 (p. 5):

- (122) tsún-tsi-lhkan  
*tell-2sg.obj-1sg.su*  
 'I told you'

(AA, LT 2296; van Eijk 1985: 174)

(122) is felicitous because the referents specified by the affixes (first- and second-person) are always clear from the discourse, in which there is a speaker (first-person) and an addressee (second-person). However, overt arguments are optional even when they are third-person, as the following example shows (repeated from (12) of chapter 1 (p. 8)):

- (123) tsún-Ø-as  
*tell-3sg.abs-3sg.erg*  
 'she told him'

(LT 2425)

In sentences like these that do not have overt lexical arguments, the arguments of the predicate are generally assumed to be represented by null pronominal constituents (the empty category *pro*). Each *pro* is in an argument position, and is licensed by a pronominal affix on the predicate.<sup>34</sup>

Note, however, that although sentences like (123) are grammatical, they are dispreferred discourse-initially, since the third-person referents are not identified, and because *pro* cannot be used deictically. The inability of *pro* to refer independently has been taken to be a characteristic of anaphors, as the contrast below suggests:

- (124) a. [Somebody in the audience gets up and leaves]  
 Speaker: *He* is weird  
 Where is *the bastard* going?  
 Where is *John* going?  
 I guess *his* patience ran out
- b. [Same situation]  
 Speaker: \*I like *himself*  
 (vs. I like *him*)

(Thráinsson 1991: 61-62)

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<sup>34</sup> Baker (1991) proposes this representation for pronominal arguments in Mohawk. See Jelinek (1984) for a different approach to the structure of radical head-marking languages, in which the pronominal affixes themselves are the arguments of the predicate.

- c. [Same situation]  
 Speaker: \**Himself* is weird

The italicized NPs refer to the person who is leaving. Crucially, none of the NPs in (124a) is syntactically bound, since the antecedent comes not from the sentence or even from the discourse, but merely from the speech situation. The same situation in (b, c), however, shows that an anaphor (*himself*) may not be used deictically—in contrast to the non-anaphoric elements in (a). The *pro* of St'át'imcets therefore behaves as an anaphor in this respect, since it likewise may not appear unbound in a sentence, and minimally requires a discourse antecedent. Moreover, because *pro* is a bound variable anaphor, it may not serve as a topic, though *pro* itself may be bound by a topic.

This property is not particular to St'át'imcets; the *pro* of Romance languages, for example, is subject to the same restriction. Consider the following contrast from Italian:

- (125) a. Quando Carlo<sub>i</sub> l' ha vista, pro<sub>i</sub> è arrossito  
 when Carlo her have.3p see.ptc pro be.3p blush.ptc  
 'when Carlo<sub>i</sub> saw her, he<sub>i</sub> blushed'
- b. Quando pro<sub>i</sub> l' ha vista, Carlo<sub>i</sub> è arrossito  
 when pro her have.3p see.ptc Carlo be.3p blush.ptc  
 'when he<sub>i</sub> saw her, Carlo<sub>i</sub> blushed'
- (126) a. \*Quando l' ha vista Carlo<sub>i</sub>, pro<sub>i</sub> è arrossito  
 when her have.3p see.ptc Carlo pro be.3p blush.ptc  
 'when Carlo<sub>i</sub> saw her, he<sub>i</sub> blushed'
- b. \*Quando pro<sub>i</sub> l' ha vista, è arrossito Carlo<sub>i</sub>  
 when pro her have.3p see.ptc be.3p blush.ptc Carlo  
 'when he<sub>i</sub> saw her, Carlo<sub>i</sub> blushed'

(Calabrese 1990: 10)

The sentences in (125) contain a preverbal subject, *Carlo*, in either the adverbial clause (a) or the main clause (b); in each case, the *pro* subject that is in the other clause may take its reference from the preverbal subject *Carlo*. The sentences in (126) correspond to those in (125), their only difference being that *Carlo* appears in post-verbal position—which Calabrese (1990) shows is a VP-internal focus position. Coreference between *pro* and the focused, post-

verbal subject *Carlo* is not possible, and because these sentences do not contain a topic, the *pro* subject lacks an antecedent.

A St'át'imcets sentence like (123), then—which has no overt nominals—may be freely used non-initially, since two participants may be tracked throughout a discourse by mapping GFs to discourse roles according to one of the schemata in (119) and by using other methods to indicate the switching of these roles.<sup>35</sup> Once a discourse topic has been established, it need not be expressed subsequently by an overt NP. Bearing this in mind as we return to a sentence like (121)—which has a single overt NP—it is clear that the overt NP *ta sqáycwa* 'the man' would not appear in this sentence if it were the discourse topic, since the topic—the entity or person about which the discourse is concerned, the presupposed information—would normally be referenced solely by a third-person pronominal affix on the predicate. Because this NP is a new referent—and because the topic of a sentence represents a presupposed referent, as the topic test in (113) shows—the most natural interpretation of this sentence is therefore the one in which *ta sqáycwa* 'the man' is the non-topic or focus. Given the mapping in (119), then, it must be inside the VP as the object:

- (127) [<sub>CP</sub> [<sub>VP</sub> áts'x-en-as    ta    sqáycw-a ]]  
           see-tr-3erg    det    man-det

Under this approach, the one-nominal interpretation law as stated in (120) is not a rule of Salish grammar, but simply a description of facts that are derived from (i) an independently needed mapping that gives the result of (119), and (ii) the principles that license null NPs as arguments.<sup>36</sup> The interaction of these general sub-theories is what compels the single NP in (121) to be the object rather than the subject.

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<sup>35</sup> For examples of discourse tracking in Salish and other languages, see Kinkade (1989; 1990).

<sup>36</sup> For some proposals concerning (ii), see Jelinek (1984) and Baker (1991). Davis (1993b) shows that neither Jelinek's nor Baker's approaches to radical head-marking languages makes entirely correct predictions for St'át'imcets, which exhibits properties of both radical head-marking languages like Mohawk and lexical argument languages like English.

### 4.3. Parallelism

#### 4.3.1. Transitives

Having derived the effects of the one-nominal interpretation law, most of the effects of parallelism may now also be derived without further elaboration. As discussed in chapter 3, coreference across transitive conjuncts is strongly constrained not only by ONO, but by the parallelism constraint on discourse functions (87), repeated below:

#### (128) Parallelism Constraint on Discourse Functions (PC)

For two items to corefer, they must both fulfill the same discourse function (either topic of the discourse or non-topic). In addition, there is a preference for both coreferential elements to fulfill the topic of the discourse function.

The effect of parallelism is illustrated below in (130), which has the context (129). These examples are repeated from (84-85) of chapter 3 (p. 42).

- (129) Pz-án-twal' wi s-Bill múta7 s-John. Wa7 wi7 cmán'-twal'-wit.  
*meet-tr- recip pl nom-Bill conj nom-John prog emph enemy- recip-3pl.su*  
'Bill<sub>i</sub> and John<sub>j</sub> met each other. They're enemies.'

- (130) áts'x-en-as nilh s-qvlqvl-ts-mín'-as  
*see-tr-3erg conj nom-bad-mouth-appl-3sg.conj*  
a. 'he<sub>i</sub> saw him<sub>j</sub>, and then {he<sub>i</sub> swore at him<sub>j</sub>/\*he<sub>j</sub> swore at him<sub>i</sub>}'  
b. 'he<sub>j</sub> saw him<sub>i</sub>, and then {he<sub>j</sub> swore at him<sub>i</sub>/\*he<sub>i</sub> swore at him<sub>j</sub>}'

(AA, GN, RW 1595)

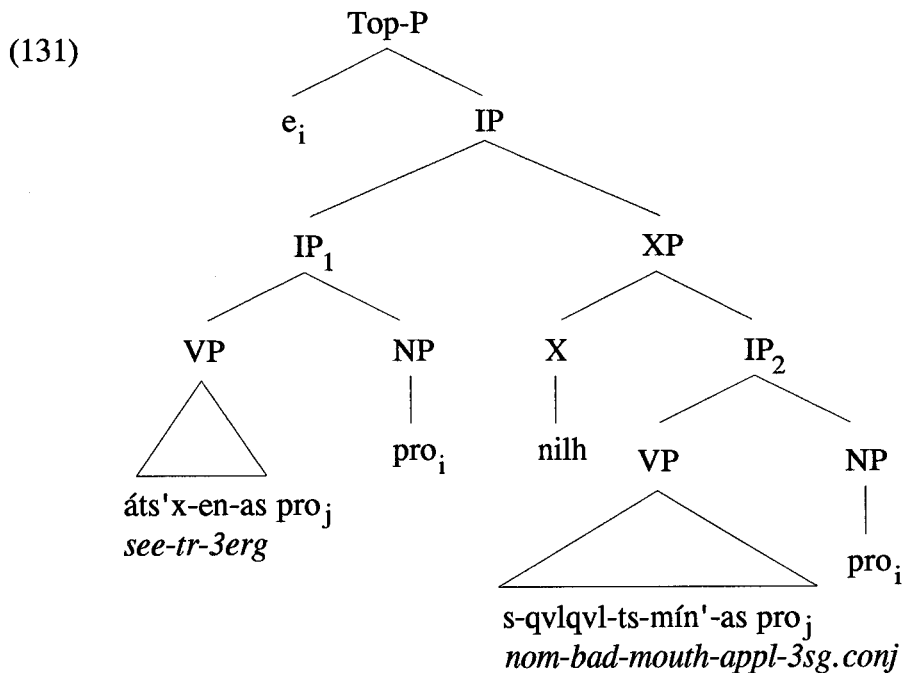
Recall from the previous section that because null pronominals are bound variables (which do not have independent reference), they are disfavored discourse-initially; rather, they must be bound by referring expressions at the relevant level of representation (presumably LF). Neither conjunct in (130) has an overt nominal, and so the topic must come from the discourse (129). Regardless of whether *Bill* or *John* is chosen as the topic, it is coindexed with the null pronominal subject in each conjunct, in accord with the parallelism constraint. The null pronominal that is assumed to be in subject position is not itself a topic, but instead takes its

reference from the discourse topic because of the unmarked correlation noted above between subjects and topics.

Before examining the structure of this sentence, it is worth considering whether the effects of parallelism as stated in (128) can be derived from the topic constraint (115). Because *pro* needs to be bound, and because a topic must bind some element in order not to violate the ban on vacuous quantification, it follows that the *pro* subject in both conjuncts of a compound sentence like (130) will be bound by the same topic in Spec/Top-P (which is the highest phrase in any sentence), in accord with the topic constraint. Parallelism is therefore not the result of a principle like (128); instead, the effect of parallelism is derived by the interaction of the topic constraint with the requirement that *pro* be bound, and the fact that the universe of discourse contains only two persons, *Bill* and *John*.<sup>37</sup> Consider how the topic position and the coindexation between subject and topic account for the parallelism exemplified in (130). This sentence has the structure in (131)—as suggested by Henry Davis (p.c.)—with each conjunct assumed to be in an asymmetrical relation with respect to each other. Subjects are shown in their S-structure position (Spec/IP) for the sake of clarity, though §4.4 will demonstrate that transitive subjects are base-generated in Spec/VP and raised at S-structure in order to get case. Irrelevant details of structure are ignored here and throughout the chapter.

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<sup>37</sup> It would be interesting to collect data having three discourse participants—especially double object constructions—in order to determine whether they provide evidence for a parallelism constraint that is independent of the topic constraint.



The conjunction *nilh* is labeled simply as a head X, since its exact category is neither easy to determine nor crucial to this account; perhaps it is a one-place predicate or a complementizer. Recall also from §1.3.1 that categorial distinctions in Salish languages are a subject of debate (Kinkade 1983; van Eijk and Hess 1986). The second conjunct is the complement of the conjunction *nilh*, and the XP within which it is contained is adjoined to IP<sub>1</sub>.

There are two important reasons for adopting this structure. First, such an analysis accommodates coordination structures into the more general X'-schema of phrase structure, which is strictly binary branching. Second, the conjunction *nilh* is clearly subordinating, rather than coordinating, and this structure accounts for the subordinate inflection (specifically, the nominalizer *s-*) that occurs in the second conjunct of coordinate structures headed by *nilh*; recall the discussion of clause inflection in chapter 1 (p. 12) leading up to the chart in (27). In a structure like (131), the conjunct to receive non-subordinate inflection (IP<sub>1</sub>) is the one that is not a complement of the conjunction *nilh*, while the non-initial conjunct that is selected by *nilh* (IP<sub>2</sub>) receives subordinate inflection.

Returning to the facts of (130) that the structure in (131) is intended to explain, there is a null topic in this structure, represented by *e*, which is in Spec/Top-P. The referential index of the null topic is chosen from one of the topics in the discourse (129). This coindexation

occurs at LF (Huang 1984: 550), and it resembles covert left-dislocation, corresponding to English S-structure left-dislocation in a sentence like *Sam<sub>i</sub>, he<sub>i</sub> swore at Fred*. Regardless of whether the null topic in (131) is coindexed with *Bill* or *John* from the discourse (129), note that the subject in Spec/IP of each conjunct is coindexed with *e* in accord with the topic constraint (115). Huang (1982: 359-360, §5.4.1, 444 n. 14; 1984: 542-543) identifies the same topic-bound empty category in Chinese as a variable—following Chomsky's (1981: 185, 330) functional determination of empty categories—since it is in an A-position and is locally A'-bound by the null topic. The same analysis is adopted here. Huang assumes moreover that the variable is the trace of the moved topic. However, the null topic is represented here simply as a base-generated empty category that must be coindexed with a *pro* variable in order not to violate the ban on vacuous quantification (Chomsky 1982: 11-13). This coindexation is compelled because pronominals are not deictic, and hence must be topic-bound. Even if the topic were a null operator that had been moved from an A-position, it would still need to find an antecedent from the discourse.<sup>38</sup>

In a sentence in which there is an overt subject and object, the topic is not taken from the discourse, since the sentence already has a subject that may move to the topic position at LF. Consider the following sentence, which is repeated from (88) of chapter 3 (p. 45).

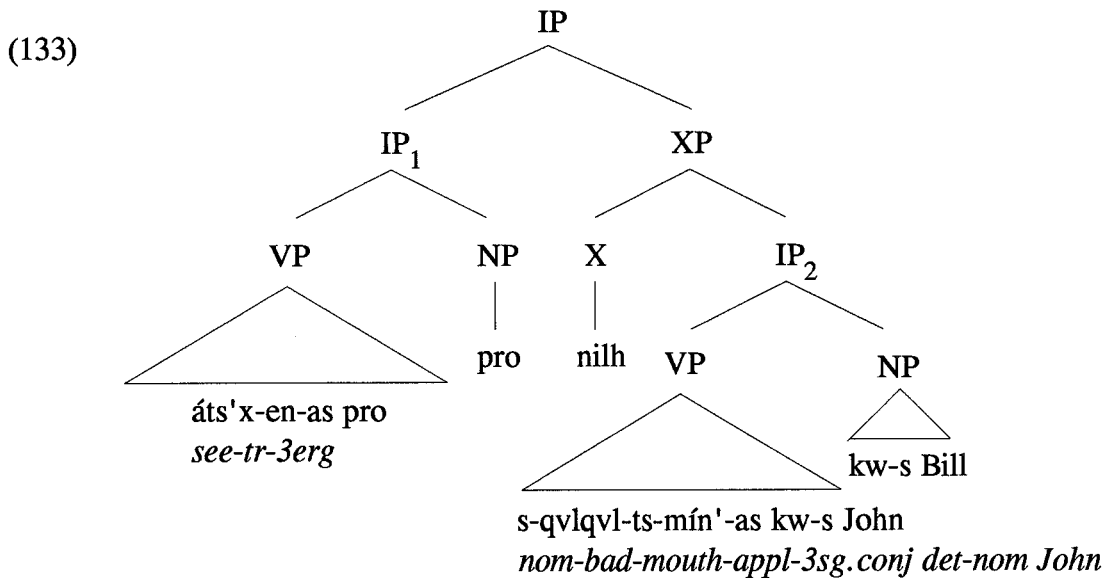
- (132) áts'x-en-as nilh s-qvlqvl-ts-mín'-as kw-s John kw-s Bill  
*see-tr-3erg conj nom-bad-mouth-appl-3sg.conj det-nom John det-nom Bill*  
 a. 'he<sub>i</sub> saw him<sub>j</sub>, and then {Bill<sub>i</sub> swore at John<sub>j</sub>/\*John<sub>j</sub> swore at Bill<sub>i</sub>}'  
 b. \*'he<sub>j</sub> saw him<sub>i</sub>, and then {Bill<sub>i</sub> swore at John<sub>j</sub>/John<sub>j</sub> swore at Bill<sub>i</sub>}'  
 (AA, GN, RW 1597)

Interpretation (a) is preferred because it respects the VOS order of the second conjunct, whereas the ungrammatical interpretation in (b) is excluded because it would require VSO order. The subject *Bill* in the second conjunct will therefore control the reference of the subject of the first conjunct.

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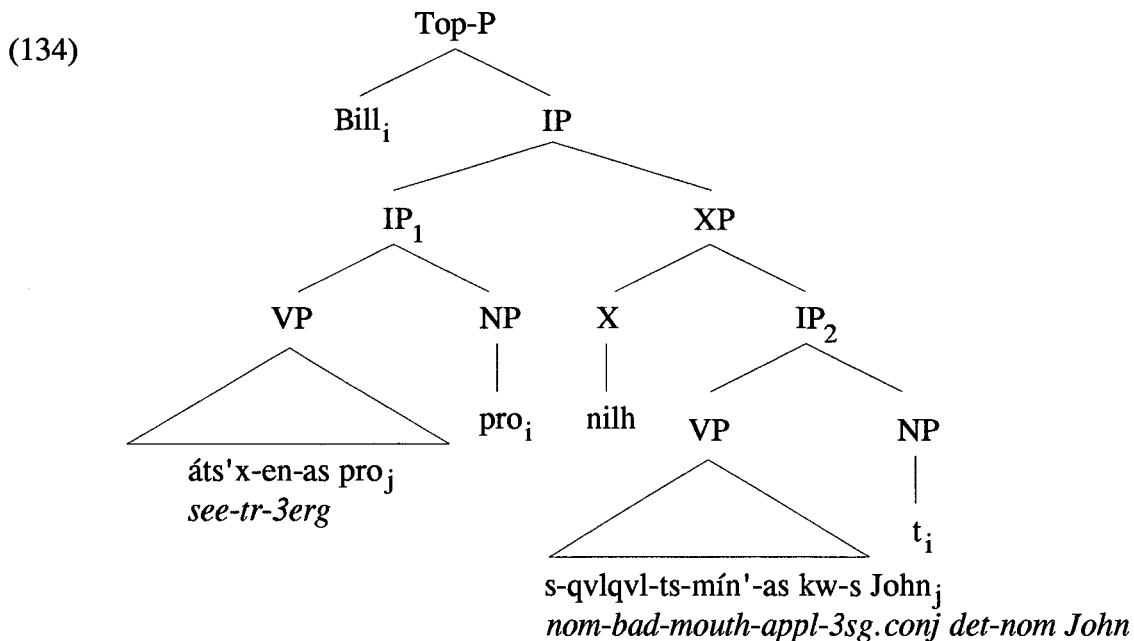
<sup>38</sup> See Cinque (1990: §3) for motivation for distinguishing pronominal variables from pure variables (i.e., traces of moved operators).

Before examining the structure of this sentence, it should be noted that the site of overt nominals in radical head-marking languages is a subject of debate: it has been claimed that overt nominals appear in adjoined positions and are either coindexed with pronominal affixes (Jelinek 1984) or with empty categories in argument positions (Baker 1991). Neither approach is correct for St'át'imcets, since Davis (1993b), Matthewson (1993a), and Matthewson et al. (1993) have shown that Condition C effects obtain with overt possessor NPs in St'át'imcets—unlike in Mohawk (Baker 1991), where Condition C does not appear to apply to overt possessor NPs. This fact can only be explained if overt nominals occupy argument positions.<sup>39</sup> Davis's and Matthewson's structure is assumed here, and so the overt nominals of (132) appear in argument positions in the following structure:



At LF, the subject *Bill* from IP<sub>2</sub> moves to Spec/Top-P, and it is then coindexed with the *pro* subject in IP<sub>1</sub> in accord with the topic constraint (115). This coindexation is essentially LF topicalization, resembling English S-structure topicalization in a sentence like *Fred<sub>i</sub>, Sally believes t<sub>i</sub> to be a fool*. The LF representation is as follows:

<sup>39</sup> Gardiner (1993: §5) reaches the same conclusion for overt nominals in Secwepemctsin.



The objects are free to corefer with each other, as indicated. The same analysis extends to (89) of chapter 3 (p. 45), which differs from (132) (=88) only in having the overt subject and object in the first conjunct rather than in the second.

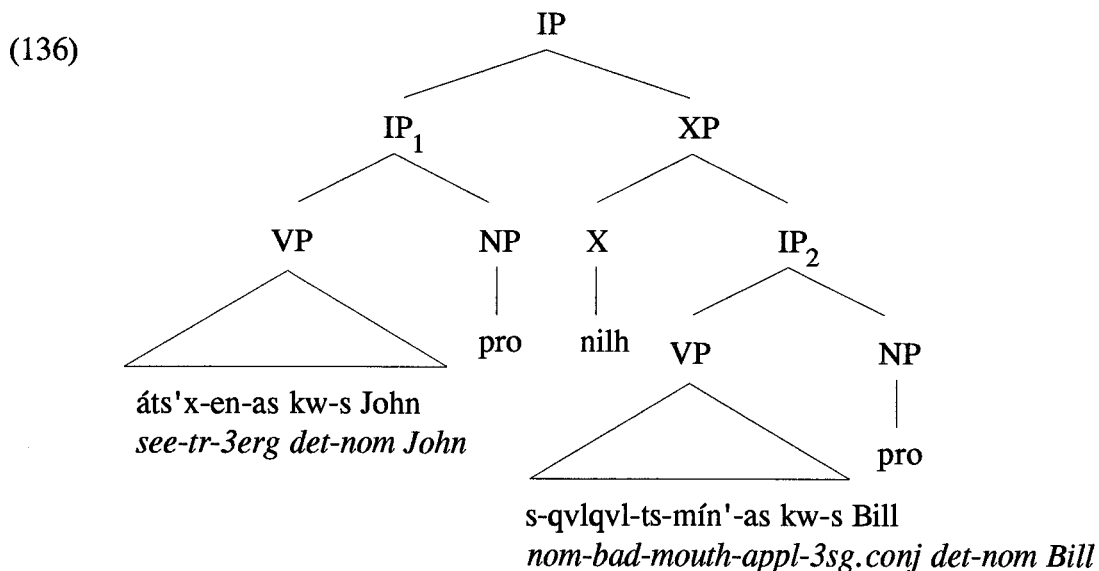
A question concerning (134)—given that XP is in an adjoined position—is whether LF extraction from XP violates the Condition on Extraction Domains (Huang 1982: §6.4), which forbids extraction from a domain that is not properly governed. The resolution of this question is only a technical matter, since it will be seen below in (135) and (142) (pp. 72, 76) that extraction is indeed permissible only from the non-initial conjunct. See also the discussion pertaining to (146) below (p. 78) for one manner of addressing this issue. Note moreover that extraction of *Bill* in (134) cannot be regarded as an across-the-board violation, since at LF, the topic *Bill* obligatorily binds an empty NP in each conjunct: *pro* in IP<sub>1</sub>, and trace in IP<sub>2</sub>. The binding relation in each case is an A' relation.

Parallelism obtains in sentences that have only null NPs, and in sentences in which there are two overt NPs in a single conjunct. In all of the cases examined above, the subject is mapped to topic, and because there is only one binder (the topic in Spec/Top-P), it must bind two elements, in accordance with the topic constraint. The sentences that remain to be explained are those that do not exhibit parallelism; they differ from the former sentences in that one of the conjuncts contains a single overt NP. Recall from chapter 3 (pp. 48 ff.) that

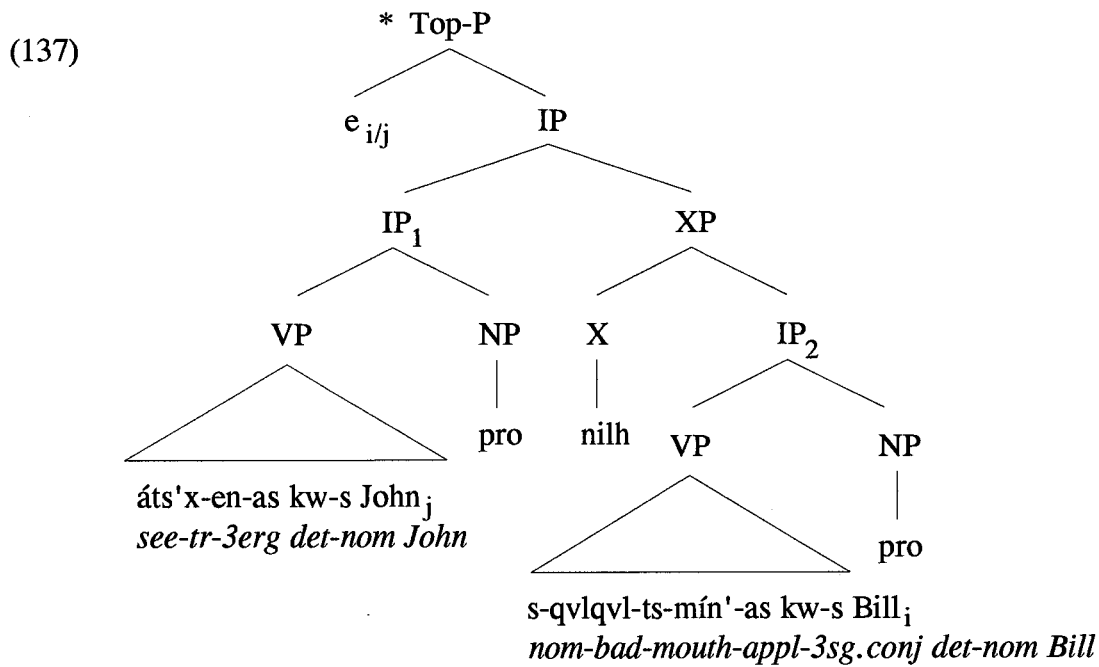
sentences having a single overt nominal in each conjunct provided evidence for constraint ranking, since the one-nominal interpretation law was respected at the expense of violating the lower-ranked constraint on parallelism. The relevant sentence was (97), repeated here as (135):

- (135) áts'x-en-as kw-s John nilh s-qvlqvl-ts-mín'-as kw-s Bill  
*see-tr-3erg det-nom John conj nom-bad-mouth-appl-3sg.conj det-nom Bill*  
 a. 'he<sub>i</sub> saw John<sub>j</sub>, and then (i) he<sub>j</sub> swore at Bill<sub>i</sub>/(ii) \*Bill<sub>i</sub> swore at him<sub>j</sub>'  
 b. \*'John<sub>j</sub> saw him<sub>i</sub>, and then (i) he<sub>j</sub> swore at Bill<sub>i</sub>/(ii) Bill<sub>i</sub> swore at him<sub>j</sub>'  
 (AA, GN, RW 1593)

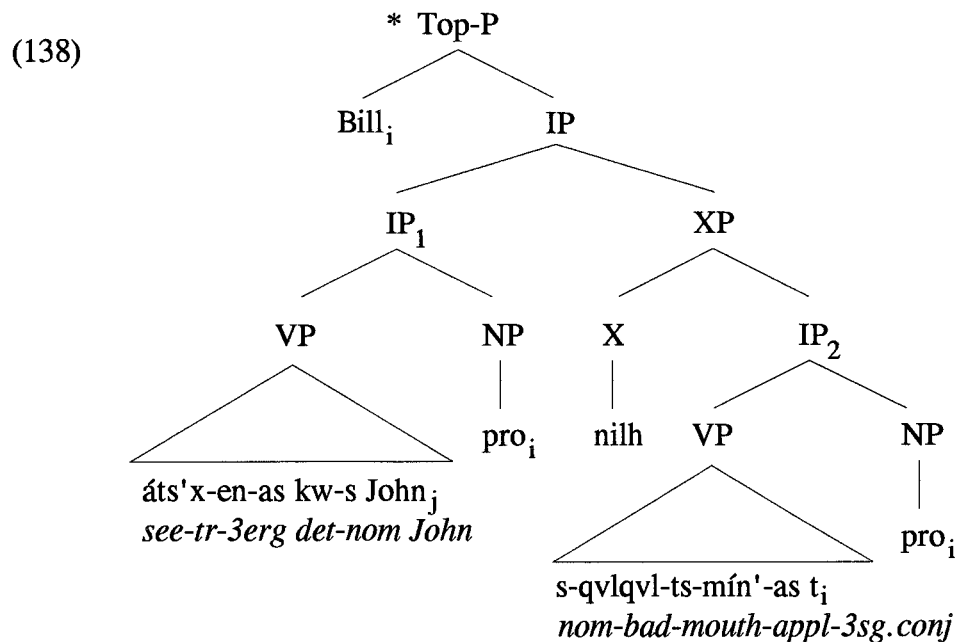
Interpretations (a.ii) and (b) are excluded because they would require the single NP in one of the conjuncts to be outside of VP, an interpretation that was shown in §4.2 to be disallowed. The S-structure of (135) is therefore as follows, with each overt NP within the VP of its own conjunct:



Because there are only two persons in the universe of discourse, it is not possible to leave the overt NPs *in situ* at LF by coindexing the topic with some preceding NP that might have had a distinct reference from *John* and *Bill*. Nor is there an overt subject that is available for movement to Spec/Top-P. Null pronominals are non-referring, as discussed above, and so neither of the *pro* subjects may raise to topic. Moreover, coindexation of a null topic with one of the overt NPs, as below, is also not possible:

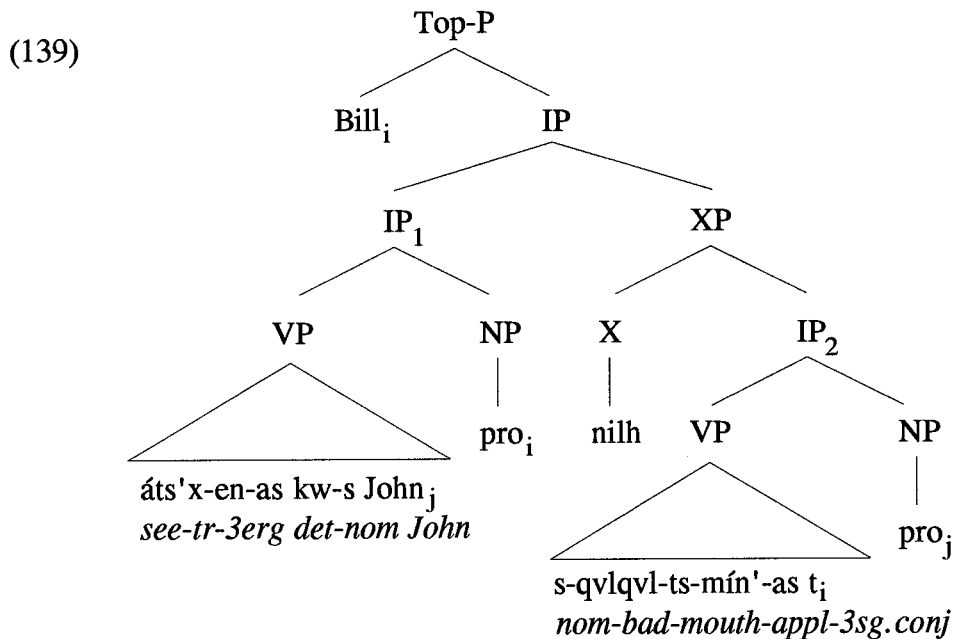


Whatever index is borne by the null topic in (137), a Condition C violation will result in one of the conjuncts, since either *John* or *Bill* will not be A-free after the topic constraint (115) compels coindexation with the *pro* subjects. The only way to rescue this structure is to move one of the overt object NPs to topic position, violating the topic constraint. In the following structure, the object *Bill* from IP<sub>2</sub> moves:



The subject *pro* of IP<sub>1</sub> is coindexed with the topic, *Bill*. Under the topic constraint (115), the subject of the other conjunct is similarly indexed with the topic, exactly as in (131, 134)

above. However, this coindexation results in a strong crossover configuration in  $IP_2$ , since the trace of *Bill* is a variable, and the closest binder is not its antecedent *Bill* in topic position, but rather the A-binder *pro* in Spec/ $IP_2$ . Condition C therefore excludes (138), since the trace of *Bill* is not A-free. (135) must instead have the following structure, with *pro* in Spec/ $IP_2$  disjoint in reference from the trace that it c-commands:



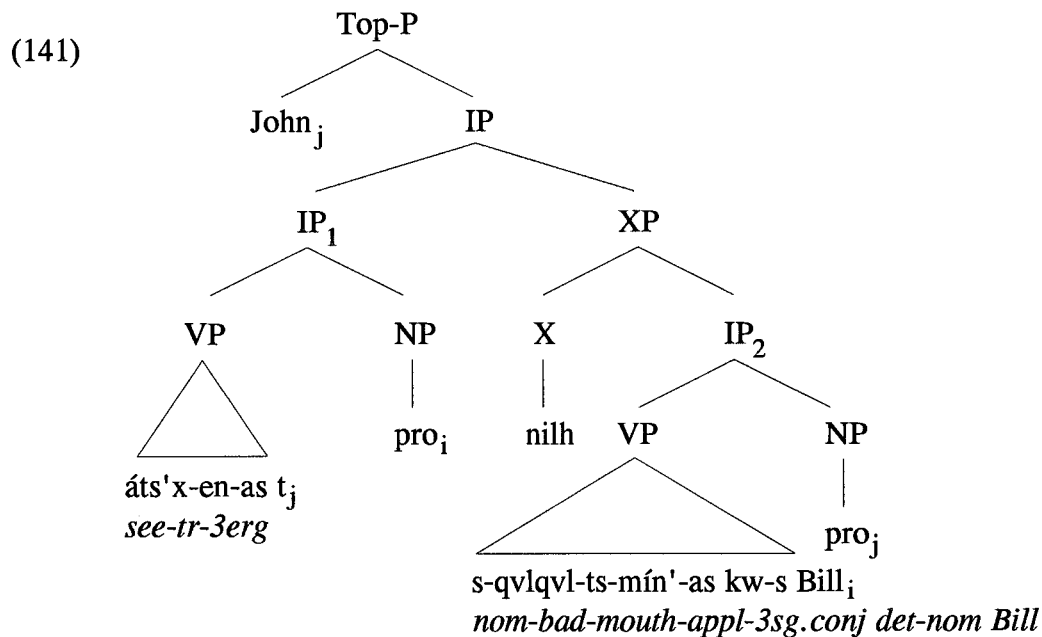
The LF representation in (139) corresponds to the only grammatical reading for this sentence, (135a.i). Note that the reference of the subjects is crucially not parallel—a fact that was described in chapter 3 by ranking the parallelism constraint below the one-nominal interpretation law; recall tableau (99) on page 49. In the analysis here, though, the non-parallel reading is derived by a conspiracy between the one-nominal interpretation law, which forces the single overt NP in each conjunct to remain within VP, and Condition C, which requires that the trace of the object that is moved to topic position be disjoint from the subject of its clause.

A strong crossover configuration is similarly reproducible in English by topicalization (Lasnik and Uriagereka 1988: 154):

- (140) a. who<sub>i</sub> does he<sub>j</sub>/\*<sub>i</sub> like t<sub>i</sub>  
 b. John<sub>i</sub>, he<sub>j</sub>/\*<sub>i</sub> likes t<sub>i</sub>

Both the *wh*-trace in (a) and the trace of the topicalized NP in (b) are variables, hence must be A-free. English S-structure topicalization therefore mirrors St'át'imcets LF topicalization—as was already noted with respect to (134), which had an overt subject and object in the second conjunct.

Apparently, the single overt NP *John* in the first conjunct of (135) may instead raise to topic position at LF, with the single overt NP *Bill* in the second conjunct remaining *in situ*. The structure of the sentence in this case is as follows:



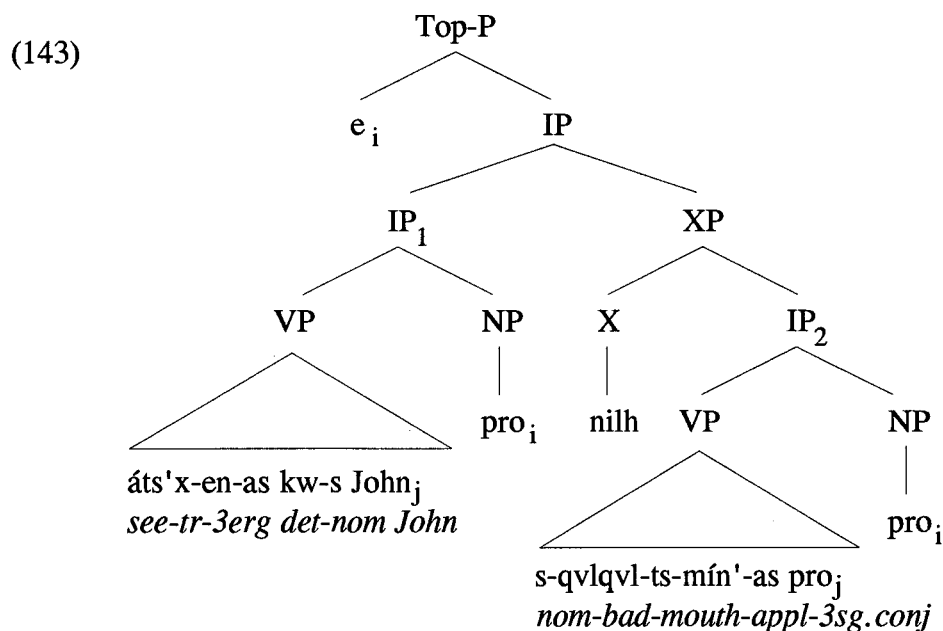
It thus appears that there are two well-formed LF derivations for (135): one with *Bill* as topic (=139), and another with *John* as topic (=141). Regardless of which object in (135) is raised to Spec/Top-P, the single grammatical interpretation in (135a.i) is obtained.

As there is a single interpretation for (135), it would be preferable if there were a single corresponding LF representation.<sup>40</sup> In fact, LF-raising of an object is possible only from the non-initial conjunct IP<sub>2</sub>, although this can be ascertained only by examining a sentence having a single overt NP in the first conjunct, but no overt NP in the second conjunct. An example is (142), repeated from (95) of chapter 3 (p. 47):

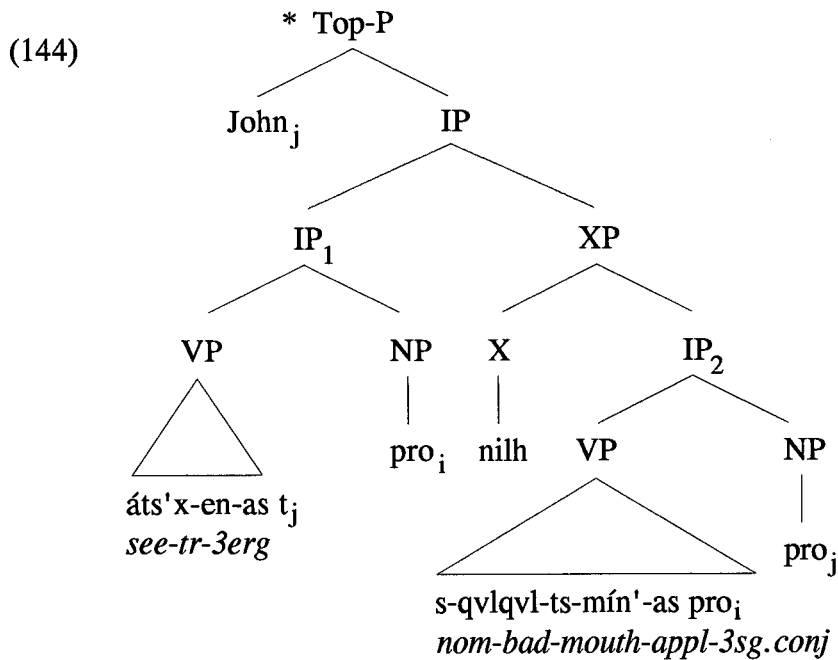
<sup>40</sup> Chomsky (1992) argues that there should be only one 'converging' (i.e., well formed) derivation for any given sentence.

- (142) áts'x-en-as kw-s John nilh s-qvlqvl-ts-mín'-as  
*see-tr-3erg det-nom John conj nom-bad-mouth-appl-3sg.conj*  
 a. 'he<sub>i</sub> saw John<sub>j</sub>, and then (i) he<sub>i</sub> swore at him<sub>j</sub>/(ii) \*he<sub>j</sub> swore at him<sub>i</sub>'  
 b. \*'John<sub>j</sub> saw him<sub>i</sub>, and then {he<sub>j</sub> swore at him<sub>i</sub>/he<sub>i</sub> swore at him<sub>j</sub>}'  
 (AA, GN, RW 1598)

In (142), the single overt nominal *John* in the first conjunct is interpreted as inside the VP, pursuant to the discussion in §4.2, and so interpretation (b)—with *John* as subject—is immediately excluded. The non-parallel interpretation (142a.ii) is excluded because it would require the second conjunct to violate the topic constraint (115). Since there are no other overt NPs in this sentence that can move to Spec/Top-P (*John* is excluded, as will be seen presently), the topic is taken from the discourse, and so the empty topic is coreferent with *Bill* from the context (129). This sole grammatical reading (142a.i) therefore has the following representation:



Crucially, the NP *John* in the first conjunct may not map to topic position. Such a structure, shown below, violates the topic constraint (115) in IP<sub>1</sub>, and corresponds to the ungrammatical reading in (142a.ii):



The generalization illustrated by the contrast between (135) and (142) is that an object NP may be extracted to topic position—violating the topic constraint (115)—only if it is at the periphery of the sentence. (Stated differently, the VP-internal overt nominal may escape the nuclear scope and raise to topic only if it originates in the non-initial conjunct.) The validity of this restriction is further supported by the data below in (148), and it is also motivated by the cross-linguistic observation that topics typically appear at clause-peripheries, rather than in embedded positions (e.g., *As for Fred, I like him*). The correlation seems natural, in that subjects in canonical VOS main clauses in St'át'imcets are likewise the peripheral element. Moreover, both subjects in simple clauses and objects in non-initial conjuncts (as in (149) below) occupy the highest S-structure position—the latter because the second conjunct is adjoined to IP<sub>1</sub>. Consider the following sentence, in which parallelism obtains in an adjunct clause only for the subject:

- (145) ts'um'-qs-án'-as lh áts'x-en-as ta sqáycw-a s-Mary  
 lick-nose-tr-3erg hyp see-tr-3erg det man-det nom-Mary
- a. 'she<sub>i</sub> will kiss him if Mary<sub>i</sub> sees the man' (topic . . . topic)  
 b. \*'she<sub>i</sub> will kiss him if the man sees Mary<sub>i</sub>' (topic . . . non-topic)  
 c. \*'he will kiss her<sub>i</sub> if Mary<sub>i</sub> sees the man' (non-topic . . . topic)  
 d. \*'he will kiss her<sub>i</sub> if the man sees Mary<sub>i</sub>' (non-topic . . . non-topic)
- (GN, RW 505; Matthewson 1993a: 29; Matthewson et al. 1993: 230;  
 cf. BF, RW 567)

Readings (b, c) are not parallel. The interesting contrast is between (a) and (d); both are parallel, but only the former has the peripheral NP *Mary* acting as both the subject and the topic, while the latter has *Mary* acting—ungrammatically—as the non-topic. (Or, equivalently, the non-peripheral NP *ta sqáycwa* 'the man' cannot be the topic.) Because these speakers are not especially strict in requiring VOS order, the contrast between (a) and (d) provides further evidence that the topic is always the peripheral element in the structure.

With this description in hand, it remains to be explained how an appropriate LF representation is derived for such sentences. Reconsider (135), which had a single overt NP in each conjunct, but apparently two well-formed LF representations (139, 141). It is now clear from the discussion of (142) that (141)—with the object raising from the initial conjunct—is not a legitimate structure for (135). The only well-formed representation underlying (135) must be the one in which the object from the non-initial conjunct is raised to topic position (139). One way of deriving this representation, suggested by Henry Davis (p.c.), is to regard the subject *Bill* as having scrambled at S-structure to an A'-position (perhaps adjoining to XP), from which it then moves at LF to Spec/Top-P. There are two reasons for regarding this scrambling as A'-movement. First, reconstruction is always from an A'-position, and there is evidence for such reconstruction of scrambled NPs in St'át'imcets (Henry Davis, p.c.). Second, if the Coordinate Structure Constraint holds at LF (Davis et al. 1993: 88 show that it clearly holds at S-structure), it would be puzzling why LF movement of an object NP to topic position (from a single conjunct) is grammatical; if the object has first scrambled to an A'-position, however, the well-formedness of its further extraction to topic position can be explained by the generalization that a phrase that has been moved to an A'-position does not constitute as strong a barrier for extraction as does a phrase in an A-position. As evidence for this claim, consider the following contrast (from Fiengo et al. 1988: 89, §3):

- (146) a. \*[vowel harmony]<sub>i</sub>, I think that articles about t<sub>i</sub> have been published  
 b. ?[vowel harmony]<sub>i</sub>, I think that [articles about t<sub>i</sub>]<sub>j</sub>, you should read t<sub>j</sub> carefully

The contrast between (a) and (b) shows that the effects of the Condition on Extraction Domains (CED) are weakened if extraction occurs from a topicalized constituent (which is in

an A'-position). In (a), extraction of *vowel harmony* directly from the embedded subject *articles about vowel harmony* violates the CED, since subject position is not properly governed. In (b), though, *articles about vowel harmony* is first topicalized (moved to an A'-position from the position of  $t_j$ ), and from this position *vowel harmony* may be further topicalized. The generalization is stated by Fiengo et al. (1988) as in (147):

(147)  $\alpha$  is a barrier only if it is not an A'-binder

Because *articles about vowel harmony* is an A'-binder in (146b) (it A'-binds  $t_j$ ), it is not a barrier, and so *vowel harmony* may be further extracted. See Fiengo et al. (1988) for an attempt to derive the effect of (147) within the framework of Chomsky (1986).

This analysis seems promising, in that the extraction in St'át'imcets would mirror the extraction in the English sentences (146). The non-initial conjunct in St'át'imcets is probably best regarded as an ungoverned domain, since—like an adjunct—it is in an adjoined position (specifically, the XP in which it is contained is adjoined to the initial conjunct  $IP_1$ ). The subject position in English is similarly ungoverned. In both languages, A'-movement (topicalization in English and scrambling in St'át'imcets) therefore facilitates further extraction, which would not otherwise have been allowed if it had occurred from an *in situ* ungoverned domain.<sup>41</sup>

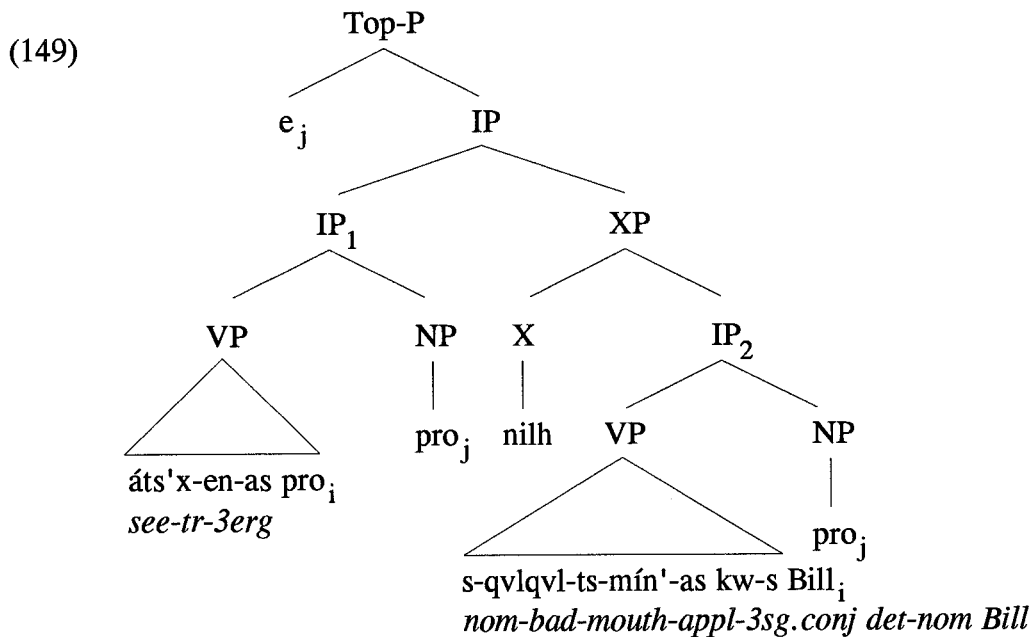
The structural approach to coreference across conjuncts has a particular advantage over the Optimality Theoretic approach outlined in §3.3.1.2 when one considers a sentence like (100)—repeated here as (148)—since the peripheral location of the overt nominal *Bill* permits it to simultaneously be the topic of the sentence while showing the usual one-nominal interpretation effect within its own conjunct.

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<sup>41</sup> A test that could help to confirm whether a scrambled NP had indeed become the discourse topic (suggested by Henry Davis, p.c.) would be to include a 'post-context' having a *pro* subject after the sentence of interest. More research on the properties of scrambling in St'át'imcets that might confirm or refute this analysis remains to be done.

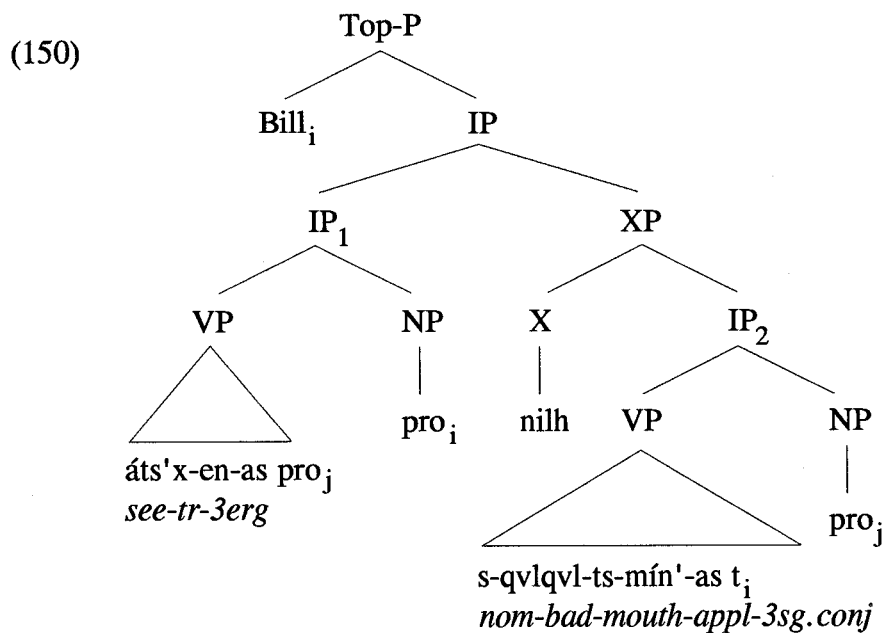
- (148) áts'x-en-as nilh s-qvlqvl-ts-mín'-as kw-s Bill  
*see-tr-3erg conj nom-bad-mouth-appl-3sg.conj det-nom Bill*  
 a. 'he<sub>i</sub> saw him<sub>j</sub>, and then (i) he<sub>j</sub> swore at Bill<sub>i</sub>/(ii) \*Bill<sub>i</sub> swore at him<sub>j</sub>'  
 b. 'he<sub>j</sub> saw him<sub>i</sub>, and then (i) he<sub>j</sub> swore at Bill<sub>i</sub>/(ii) \*Bill<sub>i</sub> swore at him<sub>j</sub>'  
 (AA, GN, RW 1594)

The interpretations in (a.ii) and (b.ii) are not allowed, because they would require that the single overt NP *Bill* be the subject of the second conjunct, violating the one-nominal interpretation effect discussed above in §4.2. The expected reading is (b.i). In this structure, shown below in (149), *Bill* remains within the VP of the second conjunct and is interpreted as the object. Because there is no disjoint, overt nominal elsewhere in the sentence that can be mapped to topic, the null topic is coindexed with *John* from the context (129). This topic is then coindexed with the *pro* subject of each conjunct, satisfying the topic constraint (115).

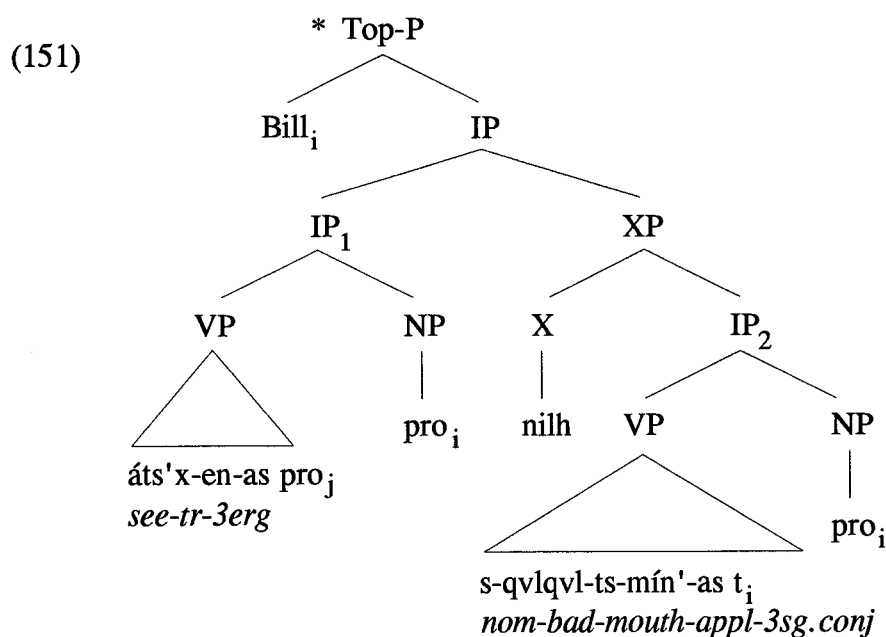


In a sentence like (135), which has two overt NPs—one in each conjunct—there is a single interpretation for the sentence. There is also only one possible reading in a sentence in which there is a single overt NP in the initial conjunct, as in (142). However, in a sentence like (148), which has a single overt NP in the non-initial conjunct, there are two possible readings, since the discourse may supply the topic, as shown in (149), or the single, peripheral NP may serve as the topic. The latter interpretation is (148a.i), in which *Bill* is the topic of the sentence at the same time that it is the object of the second conjunct. After *Bill* moves to

Spec/Top-P (perhaps after having scrambled to an A'-position, as suggested above), it is coindexed with the subject of IP<sub>1</sub>, and the object of this conjunct is free to take the reference of *John* from the context (129), as must the subject of IP<sub>2</sub>. The well-formed structure corresponding to (148a.i) is therefore as follows:



Crucially, the subject of IP<sub>2</sub> may not corefer with *Bill*, since this would create a strong crossover configuration in IP<sub>2</sub>: the trace of *Bill* would be locally A-bound by the *pro* subject, resulting in a Condition C violation.



Whatever principle allows the overt NP in the second conjunct of (135)—which has a single overt NP in each conjunct—to be raised to topic position applies with equal force to (148). The intuition that underlies this account is that such NPs appear at the periphery of the clause and/or occupy the highest position (exactly as does the subject/topic in ordinary VOS clauses). As noted above, following Henry Davis (p.c.), this might be encoded structurally as scrambling of the peripheral object to an A'-position (e.g., adjoined to XP) before mapping it to topic position (in the case of objects). Other approaches are conceivable, but it is clear that a structural account of these asymmetries is preferable to an Optimality Theoretic account. This is especially obvious when trying to capture the ambiguity of a sentence like (148). As was noted in §3.3.1.2 (p. 50), the tableau for this sentence in (101) uniquely identified as grammatical the reading with the overt object as non-topic, incorrectly dispreferring the reading in which the object is topic. The structural account proposed in this chapter, on the other hand, predicts exactly the attested ambiguity.

The interpretations that are allowed across transitive conjuncts having various combinations of overt nominals are summarized in the chart below, in which *pro* represents a null pronominal, and *NP* represents an overt R-expression.

(152)

	Topic Constraint (115)	IP <sub>1</sub>		IP <sub>2</sub>	
		subject	object	subject	object
(130)	✓	pro <sub>i</sub>	pro <sub>j</sub>	pro <sub>i</sub>	pro <sub>j</sub>
(132)	✓	pro <sub>i</sub>	pro <sub>j</sub>	NP <sub>i</sub>	NP <sub>j</sub>
(89)	✓	NP <sub>i</sub>	NP <sub>j</sub>	pro <sub>i</sub>	pro <sub>j</sub>
(135)	*	pro <sub>i</sub>	NP <sub>j</sub>	pro <sub>j</sub>	NP <sub>i</sub>
(142)	✓	pro <sub>i</sub>	NP <sub>j</sub>	pro <sub>i</sub>	pro <sub>j</sub>
(148a.i)	*	pro <sub>i</sub>	pro <sub>j</sub>	pro <sub>j</sub>	NP <sub>i</sub>
(148b.i)	✓	pro <sub>j</sub>	pro <sub>i</sub>	pro <sub>j</sub>	NP <sub>i</sub>

The structures that violate the topic constraint are (135) and (148a.i). The common property of these structures is that they have a single overt NP in the non-initial conjunct (IP<sub>2</sub>). Note that the topic constraint is only violable in this non-initial conjunct. Sentence (89), which has two overt NPs in the first conjunct, obeys the topic constraint in all conjuncts; note moreover

that LF extraction of the subject to Spec/Top-P must be allowed from the initial conjunct, and that this is presumably allowed because the overt NP subject is the highest element in that clause.

For completeness, a table of the excluded interpretations for the same set of sentences is given below:

(153)	Topic Constraint (115)	IP <sub>1</sub>		IP <sub>2</sub>	
		subject	object	subject	object
(130)	*	pro <sub>i</sub>	pro <sub>j</sub>	pro <sub>j</sub>	pro <sub>i</sub>
(132)	*	pro <sub>i</sub>	pro <sub>j</sub>	NP <sub>j</sub>	NP <sub>i</sub>
(89)	*	NP <sub>i</sub>	NP <sub>j</sub>	pro <sub>j</sub>	pro <sub>i</sub>
(135)	✓	pro <sub>i</sub>	NP <sub>j</sub>	pro <sub>i</sub>	NP <sub>j</sub>
(142)	*	pro <sub>i</sub>	NP <sub>j</sub>	pro <sub>j</sub>	pro <sub>i</sub>
(148)	✓	pro <sub>i</sub>	pro <sub>j</sub>	pro <sub>i</sub>	NP <sub>j</sub>

Parallel interpretations for sentences having a single overt NP in the second conjunct are ungrammatical, despite satisfying the topic constraint in that conjunct.

#### 4.3.2. Intransitives

Section 3.3.2 showed that parallelism—the preference that subjects corefer—does not hold strongly across conjuncts if one of them is intransitive.<sup>42</sup> One case where it does hold for most speakers, though, was (103), repeated here as (155), and which has the context (154):

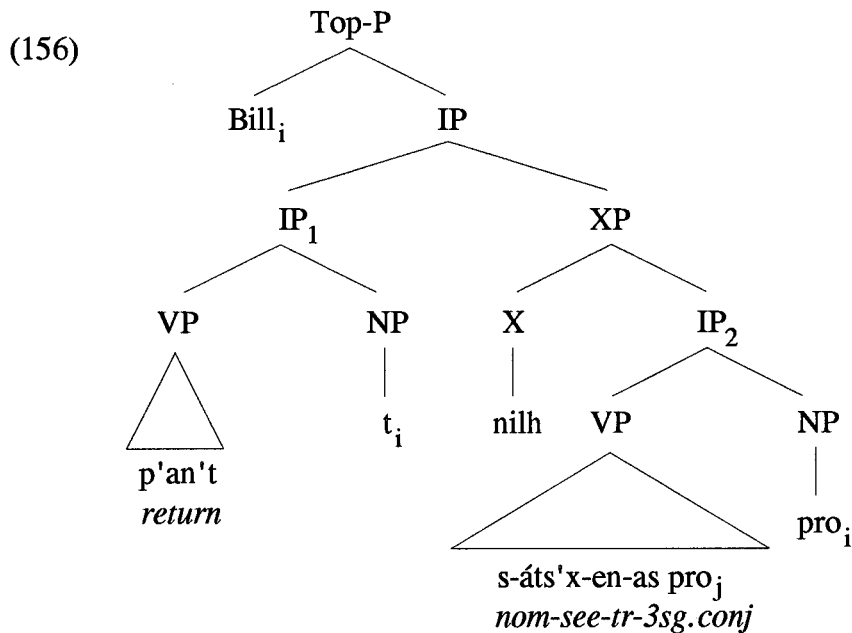
(154) wa7 k'ál'-em kw-s John  
*prog wait-intr det-nom John*  
 'John<sub>j</sub> is waiting'

(155) p'an't kw-s Bill nilh s-7áts'x-en-as  
*return det-nom Bill conj nom-see-tr-3sg.conj*  
 'Bill<sub>i</sub> returned and (i) he<sub>j</sub> saw him<sub>j</sub>/(ii) \*he<sub>j</sub> saw him<sub>i</sub>'

(AA, GN, RW 1586)

<sup>42</sup> The effect of the semantics of intransitive predicates in determining coreference has not been investigated, though it should be. In an examination of Italian, for example, Calabrese (1990: §6) shows that unaccusative verbs do not have consistent focus characteristics, these properties apparently being determined by whether or not the verb is stative.

Note that the subject of the first conjunct is preferably coreferent with the subject of the second conjunct (the interpretation in (i)). If the overt nominal subject of the intransitive first conjunct occupies Spec/IP<sub>1</sub>, coreference between the subjects in each conjunct follows straightforwardly. The overt nominal *Bill* moves to the topic position, which is then coindexed with the *pro* subject of IP<sub>2</sub>, as schematized below:



Like sentences having two transitive conjuncts (§4.3.1), sentences having at least one intransitive conjunct allow LF movement of an NP from the initial conjunct to Spec/Top-P as long as the overt NP being moved is the subject of that conjunct.

A structure in which transitive and intransitive subjects occupy the same position at S-structure (Spec/IP) gives the correct result for (155), but not always for (111), repeated for convenience as (157):

- (157) qvlqvl-ts-mín'-as      s-John      s-Bill      nilh      s-qwatsáts  
*bad-mouth-appl-3erg    nom-John    nom-Bill    conj    nom-leave*  
 a. 'Bill<sub>i</sub> swore at John<sub>j</sub>, and then he<sub>i/?j</sub> left'  
 b. 'John<sub>j</sub> swore at Bill<sub>i</sub>, and then he<sub>j/\*i</sub> left'

(AA, GN, RW 1592)

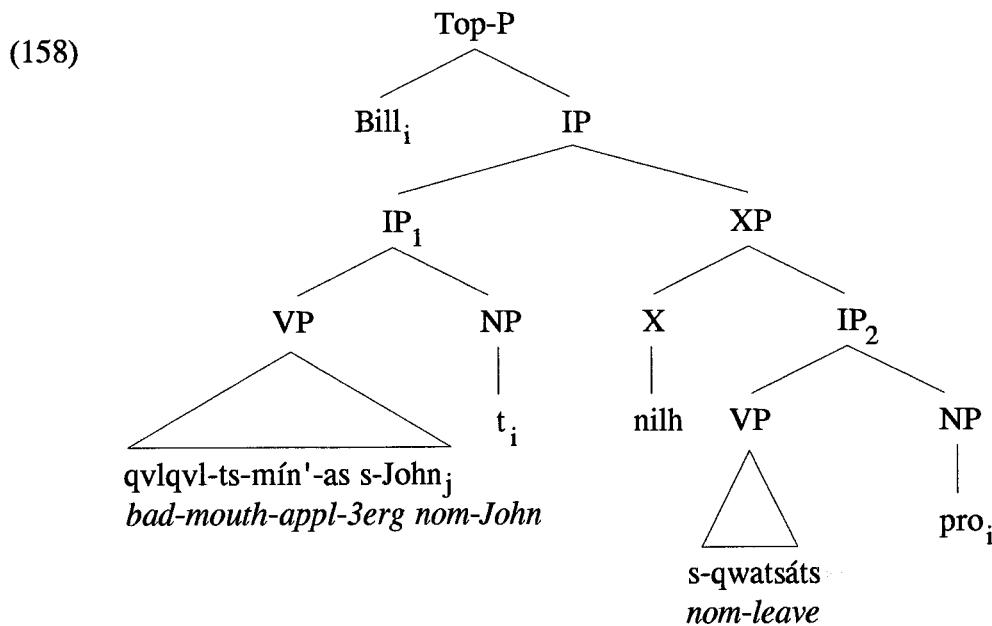
The VOS interpretation of (a) is preferred by most speakers, but the VSO interpretation of (b) is also allowed by speakers who have fairly free word order; note that in both cases, the

subject is mapped to topic, and this topic corefers with the subject of the intransitive in the second conjunct. In interpretation (b), the NP *John* would have to be scrambled and/or topicalized in order that VSO order could be derived in the first conjunct, and this representation then apparently requires that the derived subject *John* corefer with the *pro* subject of the intransitive clause. Of particular interest, though, is the reading in (a) marked by ?, which is meant to indicate not that this reading—which is not parallel—is marginal, but that its grammaticality has varied across consultants and across elicitation sessions, and has been difficult to settle with certainty. This variability is not surprising, since St'át'imcets exhibits ergativity, which entails that intransitive subjects pattern with direct objects with respect to certain processes. The variability seen with sentences like (157) suggests that the intransitive subject functions sometimes as the topic, but at other times as the non-topic. A simple way to explain the variability is to base-generate intransitive subjects within VP. Note that intransitive subjects get the case of an object (absolutive), hence it need not raise at S-structure in order to get ergative case in Spec/IP, as must a transitive subject. Intransitive subjects may remain *in situ* at LF when functioning as non-topics, and so the topic constraint will not exclude such representations. When an intransitive subject functions as a topic, however, it is because it has raised to Spec/IP at or before LF, hence is subject to the topic constraint and consequently must corefer with the subject of the initial conjunct.<sup>43</sup>

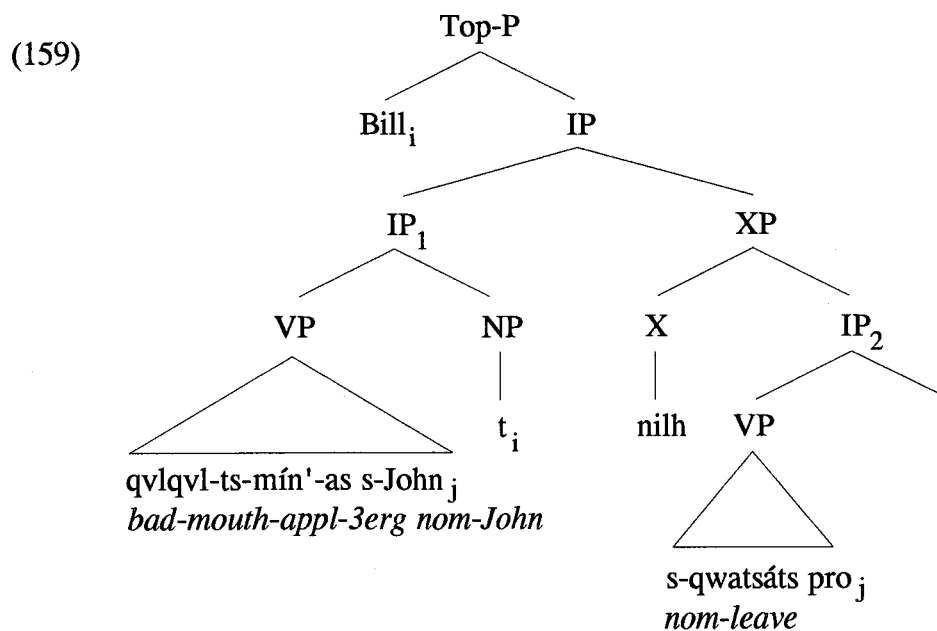
Returning to (157a), the parallel interpretation has the following structure, with the overt transitive subject *Bill* from IP<sub>1</sub> moving to topic position at LF and then being coindexed with the intransitive *pro* subject in IP<sub>2</sub>.

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<sup>43</sup> It is uncontroversial for the object to receive case within VP, the problematic GF of course being the intransitive subject. No specific claim will be made concerning whether intransitive subjects get case in Spec/VP, as sisters of the verb, or perhaps through a relation with some other functional projection outside of the VP; note that the last possibility seems unlikely, since absolutive agreement (unlike ergative agreement) is not overtly marked on the predicate. It would be desirable if transitive and intransitive subjects shared the same position at D-structure, since some aspects of the syntax of St'át'imcets—such as the formation of imperatives and jussive complements—are clearly accusative.



For this particular reading, then, the intransitive subject is in Spec/IP<sub>2</sub>, and so the structure of (158) is accusative, since the transitive subject in the first conjunct is also in Spec/IP. In order to derive the non-parallel reading in (157), however, the intransitive subject must remain in Spec/VP (but see the previous footnote), because in this lower position it need not be coreferential with the topic *Bill*, as the following structure shows:



There is no VP-external subject in IP<sub>2</sub> that needs to be coindexed with the topic, and the topic constraint (115) is also satisfied, since the *pro* inside VP in the second conjunct does not corefer with the topic *Bill*; instead, it is free to corefer with the other non-topic, *John*. In

summary, the two readings of (157a) therefore share LF movement of the subject *Bill* from the first conjunct to topic position. Their different interpretations are derived from the position of the intransitive subject, which in a split-ergative language like St'át'imcets may appear in Spec/IP when behaving accusatively, and within VP when behaving ergatively. As noted above, perhaps the semantics of the intransitive predicate can account for the variation, though this remains to be investigated.

In conclusion, the facts concerning coreference across conjuncts in St'át'imcets may be explained by mapping grammatical functions to discourse functions at LF. Specifically, the grammatical subject is canonically mapped to topic position (Spec/Top-P) in accord with the topic constraint (115) (although the topic constraint is violable in the second conjunct of sentences that have a single overt, peripheral NP). In so far as coreference across conjuncts is determined by this mapping of grammatical functions to discourse functions (Reinhart 1981 and Erteschik-Shir 1993), coreference in St'át'imcets may be regarded as having an ergative pivot, since it has been seen that the topic constraint is a constraint on the mapping of ergative NPs (transitive subjects) to topic position. Additionally, St'át'imcets displays a split between transitive subjects (ergative) and intransitive subjects (absolutive); specifically, absolutive subjects display variability in the way they satisfy the topic constraint. Note that in an accusative language like Italian (Calabrese 1990), there is a similar split between unaccusative subjects on the one hand, and transitive and unergative subjects on the other. This is interesting, since in St'át'imcets, all intransitive subjects are unaccusative, in the sense that they get the case of D-structure objects. It remains a topic for investigation to determine in what further respects intransitive subjects behave alike in both types of languages.

The structural asymmetries proposed above may be fruitfully extended to explain the ergative/absolutive extraction asymmetries in relative clauses, the subject of the next section.

#### **4.4. Extraction in relative clauses**

Chapter 2 established that there is an ergative/absolutive asymmetry in relative clause formation in St'át'imcets. Specifically, pronominal morphology corresponding to the

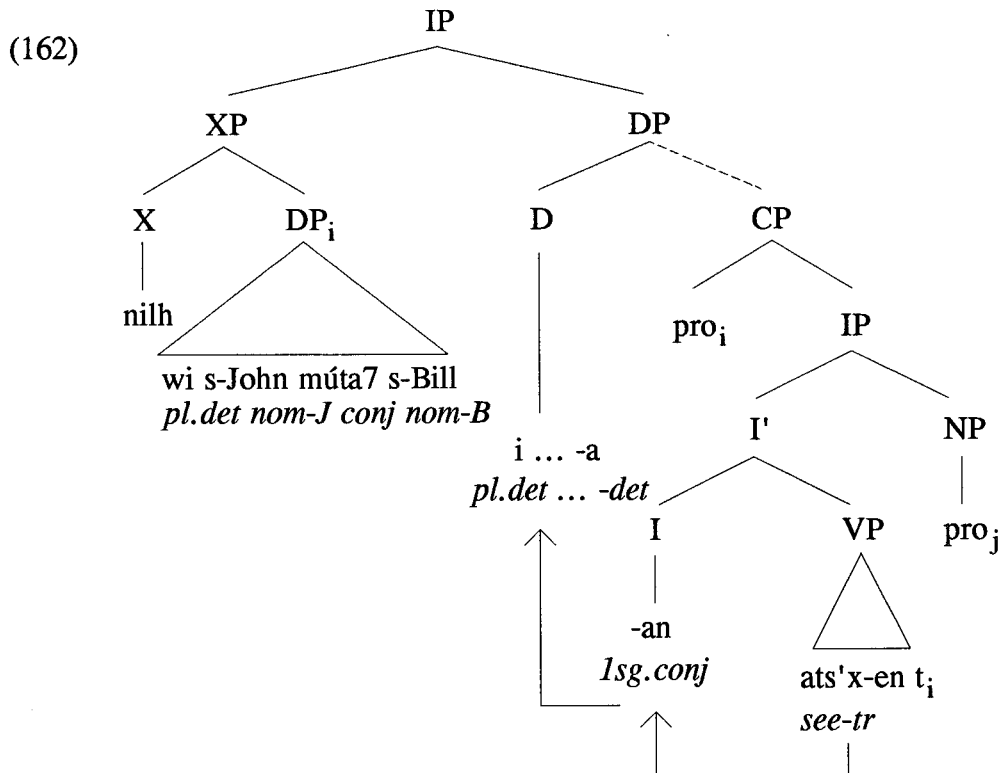
relativized constituent is obligatorily retained in ergative-centered RCs, but obligatorily gapped in absolutive-centered RCs. Consider the O-centered RC in (58), repeated here as (160), and the S-centered RC data of (44, 50), consolidated below as (161):

- (160) *nilh wi s-John múta7 s-Bill i áts'x-en{-Ø/\*-táni/\*-wít}-án-a lhkúnsa*  
*foc pl.det nom-J conj nom-B pl.det see-tr{-Ø/3pl.obj}-1sg.conj-det now*  
 'it was John and Bill that I saw'  
 (LT 2338, 2339)

- (161) *tsukw t'u7 s7ents [ ti tsícw{-Ø/\*-an/\*-as}-a]*  
*only part 1sg.emph det go{-Ø/1sg.conj/3sg.conj}-det*  
 'I am the only one who went'  
 (AA, GN, LT, RW 1200, 1201)

The obligatory absence of pronominal morphology on the RC predicate in each of these structures suggests that RCs in St'át'imcets do indeed involve extraction of a constituent from the position that is relativized. Because this extraction is not seen in the form of an overt relative pronoun, the extracted element is presumably a null operator that moves to Spec/CP; from this position it binds its trace, which is a variable.

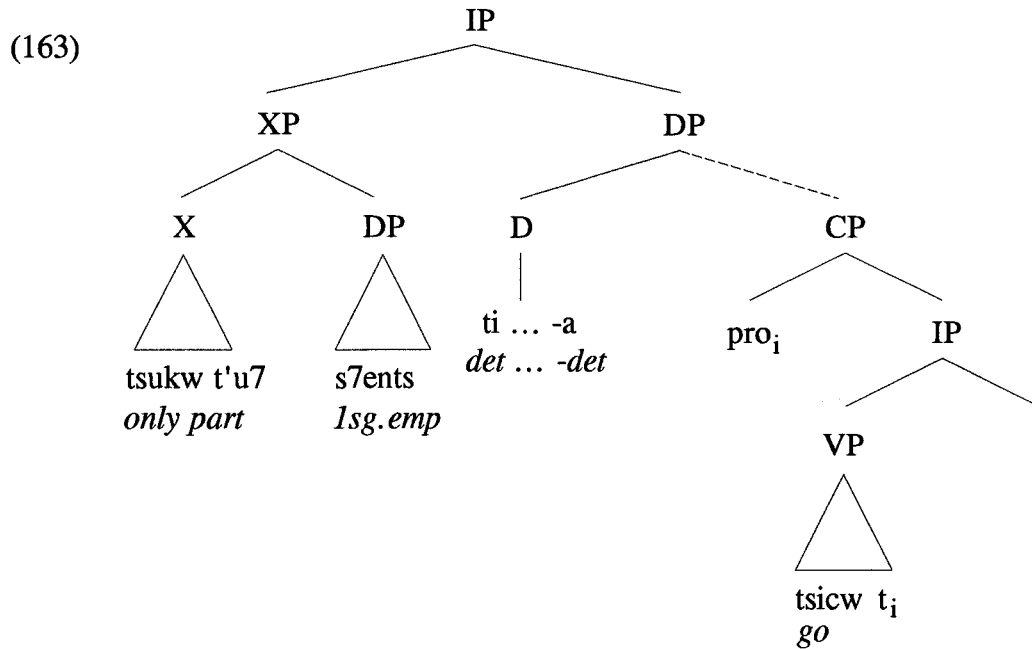
The structure of the cleft construction in (160) is in all relevant respects as in (162). The focus marker *nilh* selects a DP complement (*John and Bill*; note that the St'át'imcets sentence has an overt, plural determiner *wi*). The O-centered relative clause forms the residue of the cleft construction; it is also a complete DP because of the discontinuous, plural determiner *i . . . -a*. The head of the NP that is selected by this determiner (NP<sub>1</sub>) is empty (though coreferent with *John and Bill*) and omitted from the diagram for conciseness, as indicated by the dashed line between DP and CP. The cleft residue is therefore more specifically a headless RC, and so (160) might be more literally translated as 'it was John and Bill, the ones that I saw'. Further discussion follows the diagram:



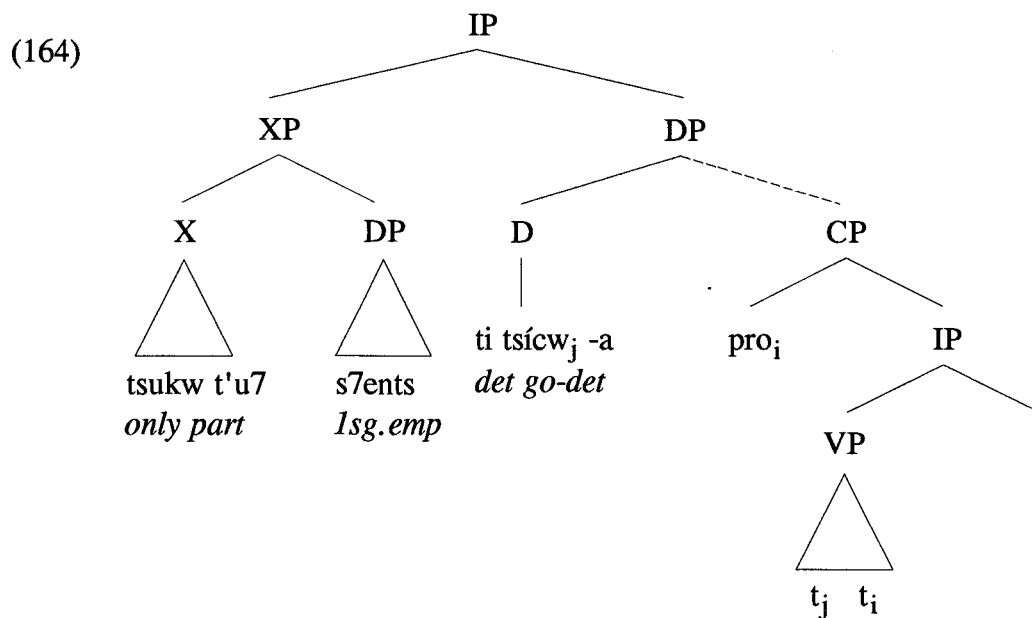
Because the target of relativization is absolutive, the trace of the null operator ( $t_i$ ) receives absolutive case from the predicate inside VP. The operator itself is assumed to be a null pronominal *pro* in Spec/CP. Because *pro* is non-referring and never used deictically, it needs an antecedent; following Browning (1987) and Cinque (1990: 160), the reference of a *pro* operator is identified via agreement between CP and the head of the relative clause (here, the null head, not shown, which is coreferent with *John and Bill*). The *pro* subject in (162) ( $pro_j$ ) is base-generated in Spec/VP, but raises to Spec/IP in order to be identified by the 1sg subject morpheme *-an* in I(nfl). As indicated by the arrows, the predicate raises to I (in order to take the 1sg subject suffix *-an*) and finally to D, where it appears with the discontinuous determiner. Intermediate steps in the raising of V as are necessary to satisfy the Head Movement Constraint (HMC) (Chomsky 1986: 71) are also assumed, but omitted from the diagram for clarity.

A similar derivation applies to the S-centered RC in (161). The constituent *tsukw t'u7* is a focus marker analogous to *nilh* (van Eijk 1985: 279, §38.5; 1987: 72), and so it appears under X, selecting the 1sg emphatic pronoun *s7ents*. The intransitive subject *pro* is base-

generated within VP, per the discussion in the previous section. After it moves to Spec/CP (it is an operator), absolutive case is assigned inside VP to the trace of the operator ( $t_i$ ):



The predicate *tsicw* 'go' raises to I, then to C, deriving a complete S-structure. Intermediate raising from V to I is needed to satisfy the HMC, but it is omitted for clarity in the diagram, since there is no affix under I in this sentence:



The topic node has also been omitted from the above structures, since it is irrelevant.

The structures in (162-164) give an idea of how absolutive-centered RCs are derived. Ergative-centered RCs differ from absolutive-centered RCs in that the 3sg subject morphology corresponding to the relativized constituent must be retained, or else the topical object marker *-tali* must appear on the predicate.<sup>44</sup> Recall (38) from chapter 2 (p. 22), repeated here:

- (165) áts'x-en-as [ ti sqáycw-a [ ti tup-un'-\*{-táli/-ás}-(h)a s-Bill ] ]  
*see-tr-3erg det man-det det hit-tr-{TO/3sg.conj}-det nom-Bill*  
 'he saw the man that hit Bill'

(GN 141; GN, RW 218; LT 2581)

All consultants<sup>45</sup> require either *-tali* or *-as* in ergative-centered RCs, and so the appearance of both morphemes needs to be explained. The conclusion of chapter 2 (§2.3) emphasized that this sort of restriction on relativization of ergatives is common in many languages outside of Salish, and so it should be possible to give a principled account of this ergative/absolutive asymmetry. An explanation is indeed possible by adopting a version of the VP-internal subject hypothesis (Koopman and Sportiche 1991 and the references cited there). It has already been assumed that intransitive subjects are generated within VP. Suppose that ergatives likewise originate in VP, specifically in Spec/VP (for the sake of concreteness, though they could just as easily be in some other projection selected by I, depending on how one analyzes the transitive affix), and that they move to Spec/IP in order to get ergative case from the ergative marker *-as* in I—the absolutive case that is available within VP being needed by the object. A sentence like (5), repeated here as (166), therefore has a structure like (167) after case-assignment to the subject *ta smúlhatsa* 'the woman' that has raised to Spec/IP:

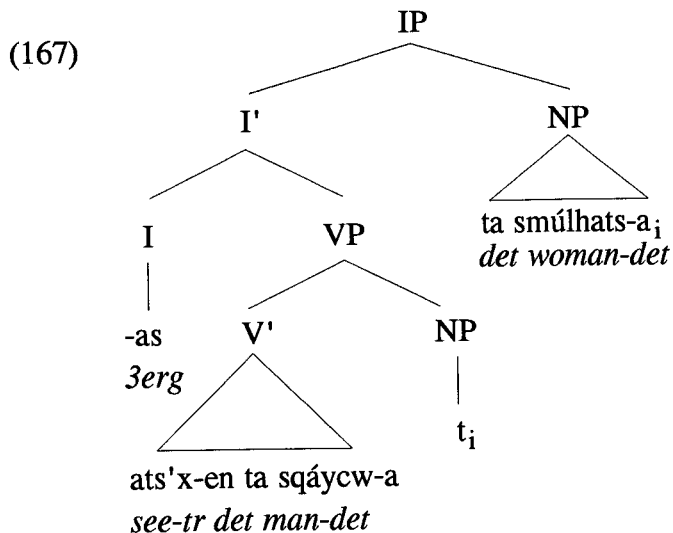
- (166) áts'x-en-as ta sqáycw-a ta smúlhats-a  
*see-tr-3erg det man-det det woman-det*  
 'the woman saw the man'

(RW 48; Matthewson 1993a: 2-3)

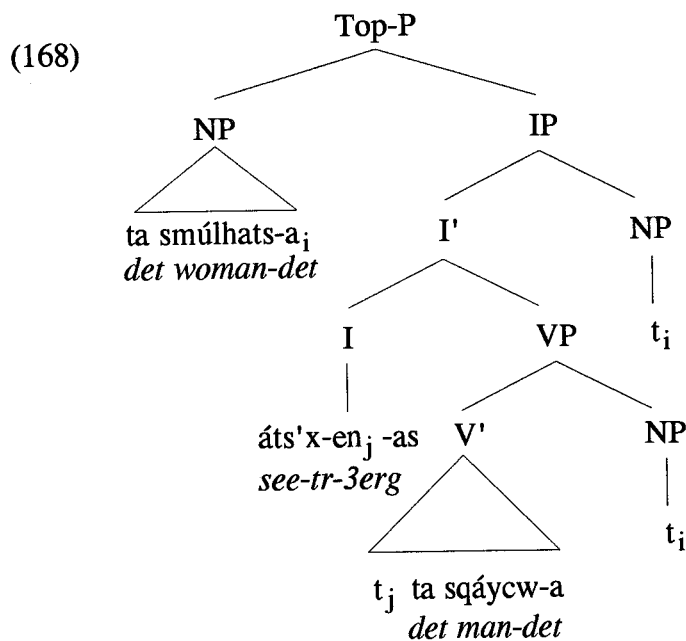
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<sup>44</sup> The passive morpheme *-m* is sometimes, but not always, interchangeable with the topical object marker *-tali*. The former appears to occur in more restricted environments than the latter, but the reasons for the variation remain unclear.

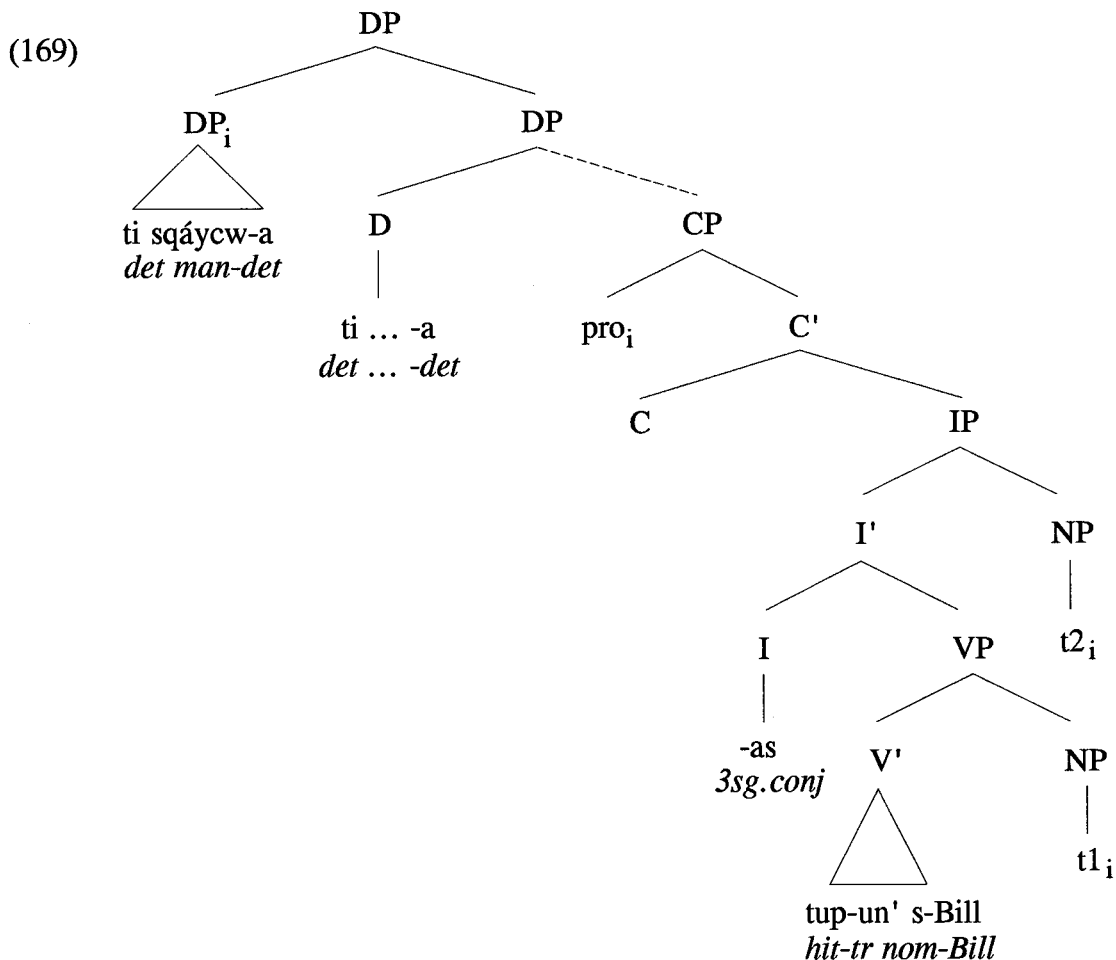
<sup>45</sup> Except GN (Henry Davis, p.c.).



V-to-I raising derives the S-structure, and the subject is mapped to topic at LF by moving to Spec/Top-P:



Returning to the variant of the ergative-centered RC in (165) with the 3sg subject marker *-as*, the representation of the complex NP after operator movement would be as in (169). The null operator originates in the VP-internal subject position (marked below by *t*<sub>1</sub>), from which it moves to Spec/IP in order to receive case from *-as* in I (the predicate's absolutive case having been assigned to the object, *Bill*). The operator ultimately lands in Spec/CP, the A'-position from which it binds the variable in Spec/IP (the case-marked *t*<sub>2</sub>):



There is thus an explanation for why relativization of ergative requires that the person morphology corresponding to the relativized constituent be retained: if the 3sg subject marker *-as* were not present under I, neither *t1* nor *t2* would be in a case-marked position, and so neither could function as a variable. The *pro* in Spec/CP in such a structure would violate the ban on vacuous quantification. In the absolutive-centered RCs diagrammed in (162-164), however, there is a single argument that originates within V'—the null operator *pro*—and because its trace at S-structure receives absolutive case from the predicate, a well-formed operator-variable chain is created. In this analysis, then, both ergative- and absolutive-centered RCs have extraction of an operator. Note, incidentally, that Jelinek's (1984) analysis of pronominal morphology is incompatible with the present analysis of RCs, since for Jelinek, pronominal affixes in radical head-marking languages bear theta-roles (i.e., they are the actual arguments). In this account, however, which does not regard relativization as having a syntactically ergative pivot (since all RCs have extraction of an operator), the ergative

pronominal affix is not itself the argument, but instead serves to case-mark an argument trace (thus licensing an operator-variable chain).

Further evidence that variables (*wh*-traces) need case is found in English. Consider the following contrast, in which a *wh*-word is extracted from the subject position of an embedded clause (Lasnik and Uriagereka 1988: 90:

- (170) a.       $\text{who}_i$  [is it likely [ $t_i$  will win the race?]]  
           b.      \* $\text{who}_i$  [is it likely [ $t_i$  to win the race?]]

The embedded subject position is case-marked in (a)—because of the finite Infl in the embedded clause—but not in (b), which has an infinitival embedded clause. Both sentences are otherwise identical, and so the ill-formedness of (b) must be due to the fact that the *wh*-trace lacks case.

The structure in (169) does not yet have a topic. The head of the RC, *ti sqáycwa* 'the man', may not lower to Spec/Top-P, downward movement being generally prohibited. Nor may the null operator in Spec/CP raise to Spec/Top-P, since *pro*—being non-referential—is excluded from topic position. (The null pronominal *pro* is as a bound variable, hence itself is always topic-bound, a point that was illustrated above (p. 66) for both St'át'imcets (130) and Italian (125-126).) An additional reason that the relativized ergative is excluded from serving as the topic is that the head of the RC is the focus of a subordinate predication (Erteschik-Shir 1993: 35-39, §6.2.2); since the RC head *ti sqáycwa* 'the man' is coreferential with the ergative operator—the person understood to be hitting *Bill* in (165) is *the man*—moving the operator into topic position would illegitimately entail that in the subordinate predication the focus and the topic would have the same referent. Another option is that the object, *Bill*, becomes the topic in (169); this possibility is forbidden by the topic constraint (115), however, and in any case it will be reserved for the variant of (165) that contains the topical object marker *-tali* rather than the 3sg subject marker *-as*. (As will be seen below, sentences with *-tali* signal focus of the subject rather than the object.) Instead, it will be assumed (following Erteschik-Shir 1993) that the entire clausal portion of the relative clause in (169) denotes the subordinate

(171)

ti sqáycw-a  
*det man-det*

ti ... -a  
*det ... -det*

pro<sub>i</sub>

C

I

-as  
*3sg.conj*

V'

tup-un' s-Bill  
*hit-tr nom-Bill*

t<sub>2i</sub>

t<sub>1i</sub>

(172) Nagano-wa hito-ga ooi  
*Nagano-top people-nom many*  
 'speaking of Nagano, there are many people there'

- (173) Nagano-wa hito-wa ooi  
*Nagano-top people-contr many*  
 'speaking of Nagano, it is people, not others, that are many'

Recall from (118) above (p. 61) that focus is associated with *wh*-questions. In particular, the constituent that answers a *wh*-question is the focus of the sentence. The reason for this, of course, is that a *wh*-question has the communicative goal of seeking new information, and so the answer to a *wh*-question comprises non-topical, or new, information. In contrast, the topic of a sentence typically refers to something that is presupposed and familiar from the discourse. It is reasonable, then, that non-topics—but not topics—would be questioned, and this intuition is syntactically realized in Japanese. Both RC heads and *wh*-words may be marked by the focus morpheme *-ga*, as shown in the (a) examples of (174) and (175) respectively. Crucially, however, neither a relative clause nor a *wh*-question may be formed with the topic marker *-wa*, as the corresponding (b) sentences show. Rather, only the contrastive-focus interpretation is possible for the *-wa*-marked NPs (174b, 175c):

- (174) a. Tamako-ga sukina momo  
*Tamako-nom like peach*  
 (i) 'the peach Tamako likes' (wide focus)  
 (ii) 'the peach TAMAKO likes' (narrow focus)
- b. Tamako-wa sukina momo  
*Tamako-nom like peach*  
 'the peach which TAMAKO, not others, likes' (contrastive focus only)
- (175) a. Kyoo-wa dare-ga kimasu ka?  
*today-top who-nom come interrog*  
 'as for today, who is coming?'
- b. \*Kyoo-wa dare-wa kimasu ka?  
*today-top who-top come interrog*  
 'as for today, speaking of who, is s/he coming?'
- c. Kyoo-wa dare-wa kuru kedo, dare-wa kimas-en ka?  
*today-top who-contr come but who-contr come-not interrog*  
 'as for today, who is coming, but who is not coming?'

A similar paradigm can be constructed in English. The *as for x* construction carries topical information; examples are the following:

- (176) a. As for Sally, she writes poems and short stories  
 b. As for donuts, Fred eats them for breakfast

A topic may appear in a *wh*-question if the topic and the *wh*-word have distinct referents, and as long as the topic appears higher than the *wh*-word:

- (177) a. As for Sally, what does she write?  
 b. \*What, as for Sally, does she write?  
 c. As for donuts, who eats them?  
 d. \*Who, as for donuts, eats them?

However, an *as for x* construction may not be used to ask a *wh*-question directly, since the *wh*-word may not simultaneously be the topic and the focus of a sentence. The following sentences are parallel to the Japanese sentence in (175b):

- (178) a. \*As for who, (she) writes poems and short stories?  
 b. \*As for who, does she write poems and short stories?  
 c. \*As for what, Fred eats (them) for breakfast?  
 d. \*As for what, does Fred eat (them) for breakfast?

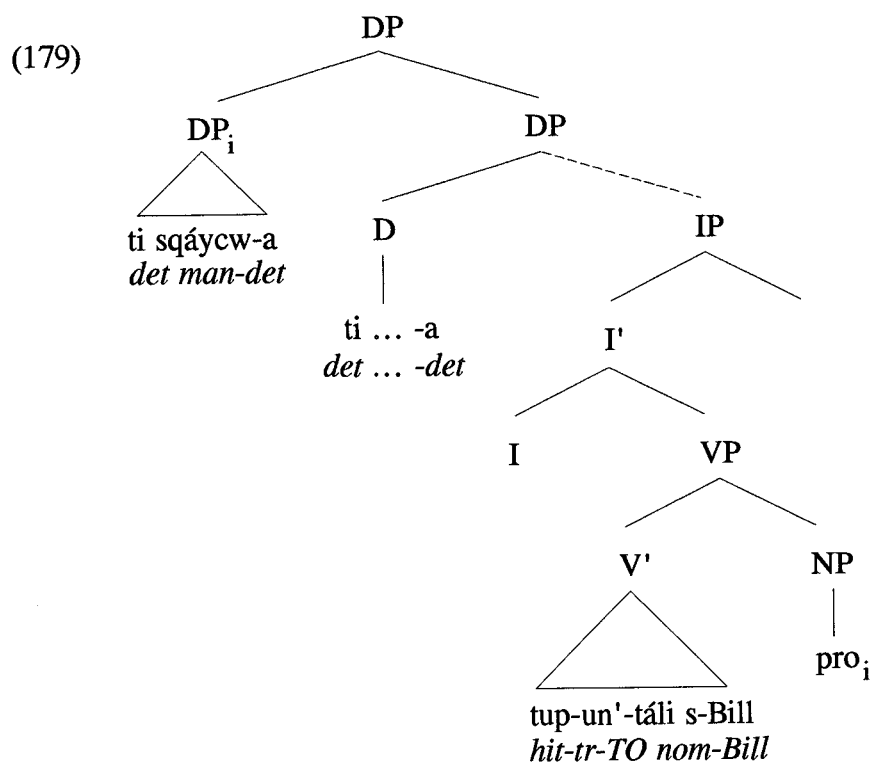
These data are reminiscent of the topic/focus structure subordinate predication in the RC diagrammed in (169). Just as the focused head *ti sqáycwa* 'the man' could not lower to topic position (since the topic and focus would illegitimately have the same referent), neither may the *wh*-word in (178) be both the topic and the focus of the sentence.

To summarize, the obligatory retention of pronominal morphology corresponding to relativized ergatives in St'át'imcets can be explained by Case theory and by a structure in which ergative NPs occupy a higher position at S-structure than do absolutive NPs. The lack of a topic in these relative clauses probably represents a universal phenomenon, as suggested by the Japanese and English data cited above. See also Schachter (1973) for instances of other languages in which RCs and focus/cleft constructions resemble each other.

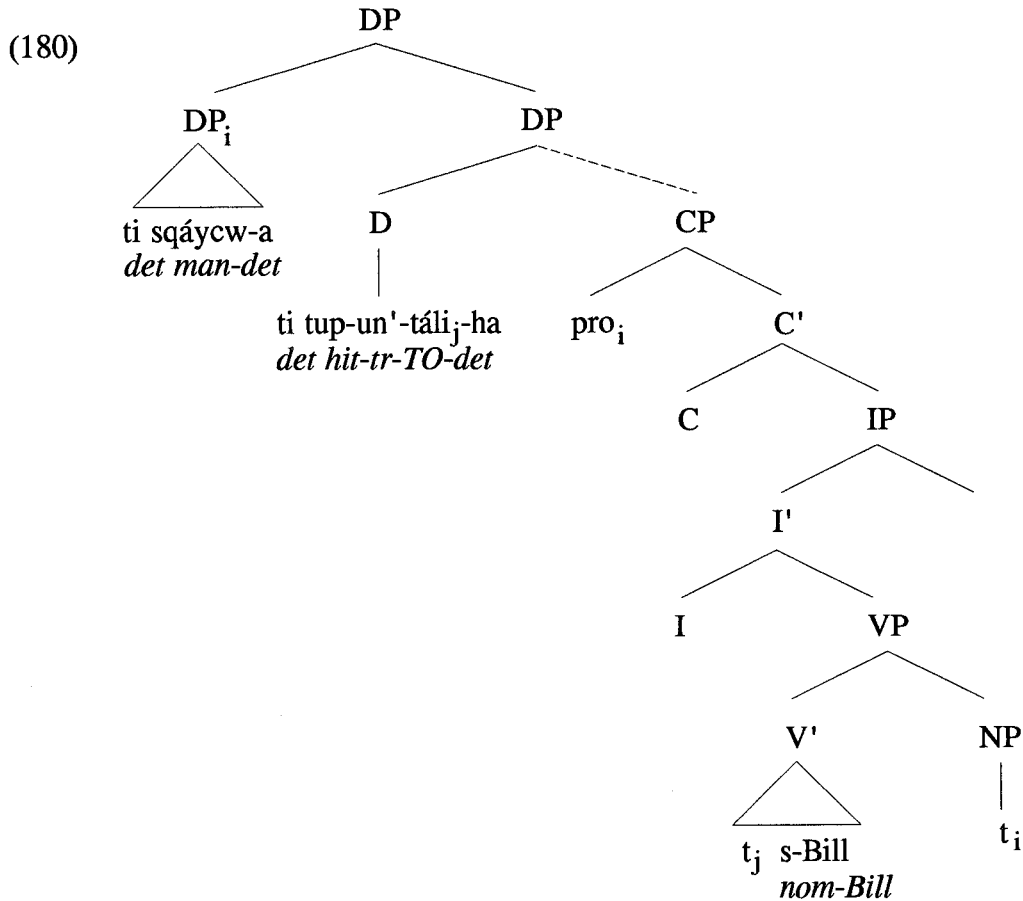
The final task is to explain the difference between an ergative-centered RC with *-as* as opposed to one with the topical object marker *-tali*. The discourse facts that need to be captured in the syntax are described thus by Matthewson (1993a: 4-5):

[The] parallelism between the object of an ordinary transitive clause and the subject of a *-tali* clause extends to their discourse function; these are the slots where entities new to the discourse are introduced. Conversely, that entity which is already 'under discussion' and is the 'topic of the discourse' tends to occur in the subject position of an ordinary transitive clause or the object position of a *-tali* clause.

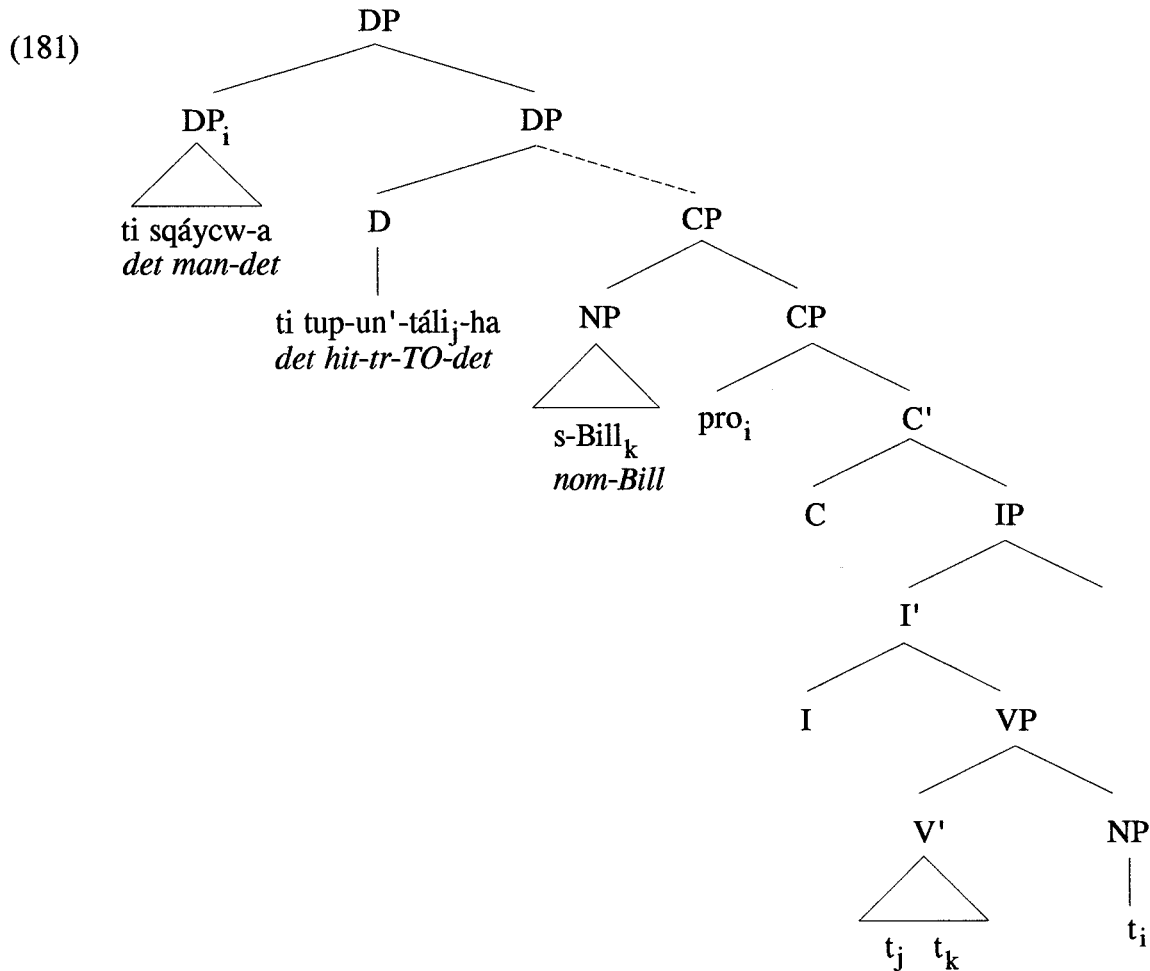
The structure in (171) gives exactly the desired consequence for an ordinary transitive clause, since the object has not been mapped to topic; instead, it remains within VP, where it is associated with the focus, pursuant to Diesing's (1992: 9-10) Mapping Hypothesis or some similar theory that relates syntactic structures to logical representations (as discussed above in §4.1). Given the different discourse function of NPs in a *-tali* clause, though, a different derivation is needed for those structures. The most sensible way to facilitate the required derivation is to base-generate *-tali* within VP, and to suppose that—like 3sg *-as*—it has its own case to assign. The D-structure for the variant of (165) that contains *-tali* would therefore be as follows:



The morpheme *-tali* may occupy a separate projection within VP—perhaps Agr-Object. For the sake of clarity, however, it is shown here as affixed to the predicate within VP, since this account requires only that *-tali* occupy a projection lower than I. Within VP, there are therefore two cases available: one from the predicate (which is received by the object, *Bill*, as usual), and the other from *-tali*, which is free to be assigned to Spec/VP. Because Spec/VP is a case-marked position, the operator *pro* can move directly from Spec/VP to Spec/CP. The predicate raises and ultimately lands in D, and the S-structure in (180) is derived:



The operator *pro* may not move to Spec/Top-P for the same reasons that it could not do so in the relative clause with *-as* in (169). However, because the object of a *-tali* clause is the slot in which presupposed information appears, the object *Bill* must raise at LF, landing in Spec/Top-P. From there, it A'-binds its case-marked trace. The LF representation would therefore be as follows:



Such a derivation violates the topic constraint (115), since an NP under V' (i.e., the trace of the object t<sub>k</sub>) is coreferential with the topic. However, this violation alone does not preclude the analysis outlined here, since the topic constraint (115) is intended to represent only the canonical mapping of subject to topic. Another violation of the topic constraint was seen above in (150) (p. 81), in which LF topicalization of an object was licensed by its peripheral position in the clause.

It remains to be explained why *-tali* forces the object to raise to topic. When the subject is focused, as it is in *-tali* clauses (which include *wh*-questions, clefts, and RCs), it must also be extracted. Perhaps because the VP in a *-tali* clause already contains a focused constituent (i.e., the trace in subject position), the object must move to Spec/Top-P at LF in order that there not be two focused constituents in the same domain.

The topic constraint can be violated also in English, as an intonationally prominent subject is focused. This is exemplified below:

- (182) a. Fred hates Bill  
       b. FRED hates Bill

Sentence (a) with normal intonation has the unmarked mapping of subject to topic, in which *Fred* is the topic. In (b), though, with stress on the subject, *Fred*, this NP is interpreted as the focus, not the topic.

Clearly, a language may have various strategies for altering the subject-to-topic mapping, and *-tali* represents another such strategy that is available in St'át'imcets. Because there are two cases available to be assigned within VP in a *-tali* clause, the relative clause examined here could conceivably have the same representation at S-structure as at LF. Such a structure, shown above in (180), would resemble the one with *-as* in (169), in that the topic of the subordinate predication in (180) would be the clausal portion of the RC (following Erteschik-Shir 1993). In a structure like (181), though, the function of the topical object marker *-tali* is precisely to allow the object of a transitive clause to function as the topic within the RC itself, which has its own topic/focus structure independent of the matrix predication.

A benefit that accrues from this analysis is that the subject of a *-tali* clause remains in Spec/VP, within the domain that is mapped to the nuclear scope. Because the nuclear scope is associated with the focus, it is possible to explain why some speakers—notably RW (and probably also LT, based on the limited elicitation with her regarding these data)—prefer and usually require *-tali* in sentences in which the subject has been focused (whether relative clauses, clefts, or *wh*-questions). The head of an RC is the focus of the subordinate predication, according to Erteschik-Shir (1993), and because this head corefers with the extracted operator, it would naturally be preferable if the variable was within the domain of focus (VP)—as it is in the LF representation for the *-tali* clause in (181). In an RC with *-as*, however, the ergative operator must raise out of VP in order to get case in Spec/IP. In the structure in (169), then, the variable *t*<sub>2</sub> corefers with the focused RC head *tí sqáycwa* 'the man', but the variable itself will not be in the domain of focus, since it has escaped VP. This fact may be the reason why ergative extraction with *-as* instead of *-tali* is ungrammatical for

some speakers. The more general question concerns why focusing the subject with *-tali* requires it to be extracted; it is likely related to the topic constraint, though this question is left to future research.

This analysis explains the retention of ergative morphology and topic-focus structure only with respect to relative clauses, and more specifically with regard to a subset of data. It remains to be explained why some consultants (GN is one) can extract an ergative NP with neither *-tali* nor *-as* on the predicate. In the meantime, the present analysis offers a framework within which such additional data may be addressed. Further fieldwork will determine whether this system is adequate to explain the additional facts while remaining a restrictive and coherent theory.

#### **4.5. Summary**

This chapter has shown that the asymmetric behaviours of subjects and topics in St'át'imcets may be explained within the Principles and Parameters model of syntax (Chomsky 1981; 1982; 1986; 1992; etc.). Radical head-marking languages and languages displaying ergativity have been integrated into this approach to syntax with limited success, since the model has been built mainly upon well described, accusative Indo-European languages. However, recent work on topic-focus structure (Reinhart 1981; Calabrese 1990; Diesing 1992; Erteschik-Shir 1993; Partee to appear) and the position of subjects in hierarchical structure (Koopman and Sportiche 1991 and the references cited there) is beginning to reveal how typologically diverse languages converge structurally.

Section 4.2 demonstrated that the effects of the one-nominal interpretation law may be derived by identifying the nuclear scope of a sentence as the structure below VP. Section 4.3 showed that parallelism in coreference across conjuncts is the result of an LF principle—the topic constraint (115)—that maps the subject of a sentence to a structural topic position (Spec/Top-P). Finally, §4.4 accounted for extraction asymmetries in relative clauses by employing Case theory to ensure that ergative NPs are higher than absolutive NPs at S-structure. The topical object marker *-tali* appears when the subject is focused, and it moreover

requires that the subject be extracted. Most of the analyses in this chapter assume that grammatical functions are mapped to discourse functions at LF, and that this mapping is constraint by the topic constraint.

All of the constraints and asymmetries outlined in this chapter have appeared in the literature in various forms. Although very specific, all appear to underlie a broader linguistic system, since they manifest themselves universally in discourse. It would be surprising to find a language, for example, that regularly marked a topic by repeating it throughout the discourse as an overt NP, or that had a device for questioning given information in the discourse. All of these discourse-based notions are amenable to a structural analysis. That this analysis applies with equal validity to languages as genetically and typologically diverse as St'át'imcets, Italian, Japanese, and English—and others sharing their characteristics—strongly suggests that it is capturing not merely language-specific features of sentence structure, but properties of Universal Grammar.

## Chapter 5

### Conclusion

The principal contribution of this thesis has been to describe some hitherto uninvestigated syntactic properties of St'át'imcets, with a view to determining specifically to what extent the language is syntactically ergative. Chapter 1 outlines some morphosyntactic characteristics of St'át'imcets, showing how it shares with other Salish languages the property of morphological ergativity in its pronominal inflection. Dixon (1979) identifies relativization and conjunction as two major processes in which languages manifest either syntactic ergativity or syntactic accusativity, and so chapter 2 explores relativization and chapter 3 investigates coreference in conjoined clauses. Both processes appear to be ergative in certain respects.

Relativization in St'át'imcets has the appearance of syntactic ergativity, since ergative NPs are relativized by processes that are not employed in relativizing absolutive NPs. Specifically, certain speakers require that relativized ergatives have the topical object-marker *-tali* on the relative clause (RC) predicate, while other speakers alternately allow the usual pronominal morphology (3sg *-as*) corresponding to the relativized ergative NP to be retained. Both sets of speakers have in common that they mark ergative RCs more explicitly than absolutive RCs. In contrast, all speakers have an obligatory gap corresponding to the relativized constituent in absolutive-centered RCs. This fact has not been previously noted, and it strongly suggests that St'át'imcets RCs involve extraction of the relativized constituent.

Conjunction in St'át'imcets is constrained most strongly by the one-nominal interpretation law (Gerds 1988) and by the topic constraint (Erteschik-Shir 1993), which gives the effect of a parallelism constraint on discourse functions (Matthewson 1993a). When coreference is examined in terms of a mapping of grammatical functions to discourse functions, it might be regarded as behaving ergatively, since the topic constraint applies specifically to transitive subjects. St'át'imcets, like other radical head-marking languages, may alternately omit or specify lexical NPs according to rules that are not well understood, but

chapter 3 supports the conclusions of Kinkade (1989; 1990) and Matthewson (1993a) that the principles governing *pro*-drop and coreference are heavily discourse-based.

Chapter 4 accounts for the asymmetries outlined in the previous chapters within the Principles and Parameters syntactic framework. The analyses there are tentative, and will surely need to be refined as additional aspects of St'át'imcets are documented. Data from St'át'imcets have only recently been brought to bear on this syntactic framework (principally by Davis et al. 1993, Gardiner et al. 1993, Matthewson et al. 1993, and in other references by these authors), and the importance of fieldwork on this language cannot be emphasized strongly enough. The relative clause and conjunction data in this thesis represent a small contribution in this regard.

Each chapter emphasizes the similarity of the St'át'imcets facts to those found in better described languages outside of the Salish family. St'át'imcets poses several problems for syntactic theories, but these problems have many precedents, and this fact must only reinforce the view that underlying the surface dissimilarity of genetically and typologically diverse languages is a unique, shared linguistic system.

## Appendix A

### Morphology

The words and morphemes listed here are given in orthography, a key for which is in the next appendix. An underline    indicates that the following morpheme is an enclitic; if the underline follows the morpheme, then it is a proclitic. Page references are to van Eijk (1985), which should be consulted for detailed information on St'át'imcets.

#### Personal affixation

##### **Possessive affixes (p. 170)**

	<b>sg</b>	<b>pl</b>
<b>1</b>	n-	-kalh
<b>2</b>	-tsu (after lh, s) -su (elsewhere)	-lap
<b>3</b>	-ts (after lh, s) -s (elsewhere)	-i

##### **Object suffixes (p. 171)**

	subject suffix	sg		pl
		transitivizer		
		I	II	
1	3pl	-tumc-al	-ts-al	-tumul
	3sg, 2sg/pl	-tumc	-ts	-tumulh
2	1sg	-tumi(n)	-tsi(n)	-tumulh
	3sg/pl	-tumi	-tsi	-tam-al'ap
3	1sg	-Ø		-tan-i
	1sg, 2sg/pl			-wit
	3sg/pl			-Ø

## Subject suffixes (p. 171)

### a. Indicative (plain)

sg			pl				
	trans.	intr.	trans.				intr.
1	-(lh)k-an		see §22.3.4 (p. 176), and 'Passive', below				-(lh)kalh
2	-(lh)k-acw		-(lh)k-al'ap				
3	-as	-Ø	-it-as	-as-wit	-twit-as	-it-as	-wit
			1sg/pl	2sg/pl	I	II	
					3sg/pl		
			object suffixes				

### b. Subjunctive (conjunctive)

sg			pl				
	trans.	intr.	trans.				intr.
1	-an		see §22.3.4 (p. 176), and 'Passive', below				-at
2	-acw		-al'ap				
3	-as		-it-as	-as-wit	-twit-as	-it-as	-wit-as
			1sg/pl	2sg/pl	I	II	
					3sg/pl		
			object suffixes				

## Passive (p. 176)

The theme argument must appear closer to the predicate than the agent. Passivized predicates are interpreted as having a 1pl subject unless there is an additional, overt subject NP. Subjunctive forms are made by adding *-as* (3sg.conj) to the indicative forms, which are listed below with the object suffixes that they select:

object (=theme)	trans	sg	pl
1	I	-tumc-al-em	-tumul-em
	II	-ts-al-em	
2	I	-tumi-m	-tam-lhk-al'ap
	II	-tsi-m	
3	I	-tum	-tan-em-wit
	II	-em	

**(In)transitivizers (pp. 130 ff., 150-152)**

transitivizers		intransitivizers
I	II	
-s (ts after s or lh)	-Vn, -Vn'	-cal
-en-s	-nun/-nun'	-em, em'
	-min/-min'	-Ø
	-cit	
	-min-cit/-min'-cit	

**Personal (emphatic) pronouns (p. 191)**

	sg	pl
1	s-7ents	s-nímulh
2	s-núwa	s-nuláp
3	s-nilh	wi s-nilh

**Wh-words (Davis et al. 1993)**

<b>who</b>	swat ku	
<b>what</b>	s-tam' ku	
<b>where</b>	n-ka7 lh	induces conjunctive inflection
<b>when</b>	(i)-kanm-ás-(as) lh	induces conjunctive inflection
<b>why</b>	kánem	induces nominalization
<b>how</b>	s-kás-ts-as lh	induces conjunctive inflection

**Demonstrative pronouns (deictics) (p. 198)**

		sg	pl
visible	this, these	ts7a	izá
	that, those	ti7	iz'
	that, those (farther)	t7u	izú
invisible	this, these	kw7a	kwelha
	that, those	ni7	nelh
	that, those (farther)	ku7	kwelh

# Determiners (p. 223)

	variable words				proper nouns	
	known		unknown			
	present		absent	present		absent
	collective	individual				
sg	ki_	ta /(t)i	na /ni	ku	kw	
pl		i	nelh	kwelh	wi	
	with a			without a		

# Enclitics (pp. 231 ff.)

a	reinforcement (with qa7, cwilh, ka )	det	239
an'	evidential	evid	232
hem'	antithesis	anti	237
ha	interrogative	interrog	237
k'a	possibility, surmise	evid	234
kelh	remote future, possibility	fut	233
ka	obligation, expectancy	oblig	233
ku7	quotative	quot	234
malh	adhortative	adhort	231
qa7	presupposed knowledge	presupp	236
tu7	definite past	def.past	231
t'lh	demarcation of time	now	232
t'u7	well, but, so	part	232
wen	emphasis	emph	238
wi7	emphasis	emph	238
cwilh	after all, it turned out to be	cons	235

# Proclitics (pp. 252-253)

(7e)lh	'before'; links independent (non-subordinate) sentences
ku	links attributes to their objects; can often be dropped

### Multi-clausal sentences (pp. 270 ff.)

nilh	conj (subordinating conjunction)
kw (ku )	det; goes with s- nominalizer
s	nominalizer; induces possessive
t	det
complementizers; normally trigger conjunctive inflection	lh hyp
	i when.past

### Primary prepositions (pp. 254-256)

Deictics and articles starting with ʔ change the ʔ to k when following these prepositions:

l	in, on, at, with, among (oblique)
e_	1. toward, along; 2. by (with agent in passive constructions); (this preposition is often dropped)
ken	around, via
lhel	1. from, out of; 2. than (in comparisons)

### Focus

nilh	foc	focus marker
-tali	TO	topical object: follows transitivizer in A-centered RCs with 3rd person object; subject affix is omitted
tsúkw t'u7	only	predicate
í7wa7	even	predicate

### Auxiliaries

wa7	progressive	prog
ka ... a	out-of-control	ooc

## Appendix B

### Key to Orthography

Data in this thesis are presented in the orthography that is used in van Eijk (1981, 1983) and Peters et al. (1992), with the exception of additional hyphens (-), which indicate morpheme boundaries. This orthography is the one that is currently the most widely used in St'át'imcets language courses. For a key to the earlier Bouchard and Powell alphabets, consult Peters et al. (1992: appendix B).

<u>Orthography</u>	<u>Americanist Phonetic Representation</u>	<u>Orthography</u>	<u>Americanist Phonetic Representation</u>
a	æ, a	qw	q <sup>w</sup>
e	ə, ɪ, i	x	ɬ
i	i	xw	ɬ <sup>w</sup>
o	o	g	ŋ
u	u	gw	ŋ <sup>w</sup>
ao	ɑ	r	ʏ
v	ʌ	ʔ	ʔ
p	p	p'	p'
t	t	t'	ɬ'
ts	č	ts'	c', ts'
k	k	k'	k'
kw	k <sup>w</sup>	k'w	k' <sup>w</sup>
s	š	q'	q'
z	z, ʔ	q'w	q' <sup>w</sup>
l	l	z'	z', ʔ'
m	m	l'	l'
n	n	m'	m'
w	w	n'	n'
y	y	w'	w'
h	h	y'	y'
c	x	r'	ʏ'
cw	x <sup>w</sup>	g'	ŋ'
lh	ɬ	g'w	ŋ' <sup>w</sup>
q	q	ii	ɛ, ɪ

## Appendix C

### Consultants

This appendix lists the principal language consultants for the Project on Lexical Interfaces with Phonology and Syntax in North West Coast Languages. The short biographies and genealogies were prepared from information offered by each individual, and they are given here with their permission. All of the consultants are presently participating in linguistics courses in St'át'imcets and Nla'kapmxcín at the University of British Columbia and Simon Fraser University.

- |                |  |
|----------------|--|
| Alice Adolph   | <i>Kawá7tu</i> . Born in Léqem'ts (near Mount Currie) to Francis Felix Leo and Evelyn Sam on 13 March 1939, and raised in nearby Xit'lólacw; attended St. Mary's Residential School in Mission, B.C., from ages six to seventeen, during which period she also lived in Tsal'álh (Shalalth/Seton Lake) with her mother and stepfather, Solomon Peters; married Sam Adolph (Tsáqwehlha7) of Cácielep (Fountain); now living in Vancouver, but still a member of the Cácielep Band. AA was raised by her paternal grandparents, Felix Leo (Lha7q) and Susan Felix Leo (Xánaq'a7) until she was six, and she spoke only St'át'imcets until she attended residential school. Her maternal grandparents were Sam Jim (Sitú) and Caroline (Maggie) Jim of Sqátin (Skookumchuck); Sam Jim's mother was Kawá7tu, and Maggie Jim's parents were Peter Williams (an hereditary chief) and Lucy Williams (Mamalúsi), all of Sqátin. |
| Beverley Frank | <i>Cázil'</i> . Born in Sék'wel'was (Cayoosé Creek) to Baptiste (Han) and Catherine (Katlfin) Frank, where she still lives; attended Lillooet Public School for eight years before transferring to Kamloops Indian Residential School, from which she graduated in 1959; attended the University of British Columbia, from which she received a Bachelor of Education degree in Elementary Education. Until leaving for residential school in Kamloops, BF spoke St'át'imcets daily with her parents and community elders. Her father was from Sék'wel'was, and her mother was from Nxwéysten (Bridge River); her maternal grandfather was from Nqwátqwa7 (Darcy), and her grandmother, Cázil', was from Nxwéysten.  |
| Gertrude Ned   | Born in T'ít'q'et (Lillooet) to Bernice Adolph on 1 February 1930, and raised by her maternal grandparents, Jack James of Nxwéysten (Bridge River) and Susan James of T'ít'q'et; attended St. Mary's Residential School in Mission, B.C.—where she and RW were classmates—from age   |

- seven until the seventh grade; thereafter attended high school in Kamloops; left school in 1951, married, and moved to Cáciep (Fountain), where she still lives. Susan James' father was Ngay'tasq'et, hereditary chief of T'ít'q'et. GN was a nurse for seven years at Mountain View Lodge, where she specialized in long-term care aid, and for several years she has taught St'át'imcets at both the high school level and at Stsmál'tsa i Sqwéma (Children of the Mountain) Public School.
- Laura Thevarge Born in Lil'wat7úl (Mount Currie) to Harry Dan and Placida Pascal on 1 June 1931; attended St. Mary's Residential School in Mission, B.C., from ages eleven through sixteen; returned to Lil'wat7úl until she was twenty-four, when she was married; now living in Vancouver. Harry Dan was from Seabird Island and Placida Pascal was from Lil'wat7úl. LT was raised by her parents and maternal grandparents, Joseph Pascal (hereditary chief of Lil'wat7úl) and Louise Pierre. Her paternal grandparents were Dan and Rosemarie Michel of Seabird Island and Sqátin (Skookumchuck) respectively. LT spoke only St'át'imcets until she attended residential school.
- Dorothy D. Ursaki Born in Lytton to Charles Walkem and Christina Paul in October 1907, and raised in Spences Bridge; attended residential school at Yale, B.C., from ages seven through sixteen; has lived her adult life in Vancouver, and is now living in New Westminster. Christina Paul was born in Lytton, and Charles Walkem—who was the leader of the Cook's Ferry Band—was born in Spences Bridge. His uncle, George Walkem, was at one time the premier of British Columbia. DU's paternal grandfather, Hugh Blake Walkem, was born in Montreal and was a surveyor for the Canadian Pacific Railway; Hugh Walkem's father, Charles Walkem, was born in Ireland. See Smith (1989: 102). DU spoke only Nla'kapmxcín until she attended residential school.
- Rose A. Whitley *K'wstátqwa7*. Born in Cáciep (Fountain) to Sebastian (Nk'yáp) and Adeline Peters on 18 May 1930; attended St. Mary's Residential School in Mission, B.C., from 1938 to 1946; spent her summer holidays in Cáciep and in the United States picking berries. RW's paternal great-grandparents were Peter Qwá7na and Pauline (Mutátkwa), Joseph Tsil.húsalts (Cáciep's first chief) and K'wswapáw's, and Eustache Peter (Qatsk) and Rosalee (Caíts'a7). Her maternal great-grandparents were Billy Fountain (Yawá7tulh) and Seraphine (Tícnek), Joe Joseph (Lil'wat7úl) and Josephine (K'wstátqwa7). RW's family ancestry is mainly Scwepmectsín and Lil'wat7úlmeç. Her parents also attended St.

Mary's Residential School, and so RW grew up speaking both St'át'imcets and Sáḡats (English). She married Edward Napoleon of the Lillooet Band (T'ít'q'et), where she still lives. RW has numerous grandchildren and one great-grandson, and she holds a Bachelor of Arts degree in Native Studies and Social Work Practice from Evergreen State College (1987).

## Appendix D

### Elicitation Sessions

This appendix is an index to the St'át'imcets syntax database for the Project on Lexical Interfaces with Phonology and Syntax in North West Coast Languages, from which the data for this thesis are drawn.

<u>Session</u>	<u>Tokens</u>	<u>Consultants</u>	<u>Date</u>
1	1-27	BF, GN, RW	8 October 1992
2	28-42	BF, GN, RW	29 October 1992
3	43-59	RW	12 November 1992
4	60-78	GN	26 November 1992
5	79-114	GN, RW	3 December 1992
6	115-149	GN	8 December 1992
7	150-167	BF, GN, RW	7 January 1993
8	168-191	BF (168-184), GN (all but 184)	21 January 1993
9	192-230	GN, RW	4 February 1993
10	231-256	GN, RW	18 February 1993
11	257-334	GN, RW	4 March 1993
12	335-372	GN, RW	18 March 1993
	373	BF	
13	374-375	BF	25 March 1993
14	376-434	GN, RW	1 April 1993
15	435-518	GN, RW	21 April 1993
16	519-536	BF	22 April 1993
17	537-601	BF, RW	6 May 1993
18	601-669	GN, RW	20 May 1993
19	670-743	GN (675-743), RW	16 September 1993
20	745-796	GN, RW	30 September 1993
21	797-835	BF	13 October 1993
22	836-918	GN (836-875), RW	14 October 1993
23	919-954	BF	27 October 1993
24	955-976	GN, RW	28 October 1993
25	977-1035	BF	4 November 1993
26	1036-1094	RW	25 November 1993
27	1095-1224	GN, RW	9 December 1993
28	1225-1298	GN	6 January 1994
29	1299-1353	GN	20 January 1994
30	1354-1445	GN, RW	3 February 1994
31	1446-1502	RW	17 February 1994
	1503-1528	GN	
32	1529-1583	AA	2 March 1994
33	1584-1643	GN, RW	3 March 1994
	1644-1712	BF, GN, RW (variously)	
	1713-1808	GN, RW	
34	1809-1834	AA	8 March 1994

35	1835-1870	AA	16 March 1994
36	1871-2034	BF, GN, RW (variously)	17 March 1994
37	2035-2064	GN, RW	24 March 1994
38	2065-2083	AA	30 March 1994
39	2084-2191	GN, RW (variously)	31 March 1994
40	2192-2212	AA	6 April 1994
41	2213-2222	AA	7 April 1994
42	2223-2279	AA	13 April 1994
43	2280-2306	AA	18 April 1994
44	2307-2322	AA	20 April 1994
45	2323-2415	LT	22 April 1994
46	2416-2461	LT	27 April 1994
47	2462-2557	GN, RW	28 April 1994
48	2558-2641	LT	3 May 1994
49	2642-2680	AA	4 May 1994
50	2681-2695	LT	5 May 1994
51	2696-2737	LT	10 May 1994
52	2738-2746	AA	11 May 1994
	2747-2759	BF, RW (variously)	
53	2760-2806	AA	12 May 1994

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