Another Look at Passives in Sliammon (Salish)[1]

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§1.0 Introduction

This paper re-examines both the morphological and syntactic evidence for a personal passive analysis in Sliammon, a Central Coast Salish language of British Columbia. Davis (1980) argues for a personal passive analysis based on evidence from Raising-to-Object (R-to-O) constructions even though the morphological evidence points to an impersonal passive construction. This apparent tension between the morphology and the syntax results in what Davis calls a "morpho-syntactic mismatch". In a personal passive analysis, the passive morpheme binds the subject, and the passive agent appears in an oblique phrase. The passive patient then raises from object position to subject position triggering subject agreement. In an impersonal passive, the passive agent still appears in an oblique phrase; however, the passive patient remains in object position, triggering object agreement instead.

Keenan (1985) and Goodall (1993) both emphasize the diverse number of syntactic constructions in the world's languages which have been typologically classified as "passives". One of the most striking properties of their work is the wide range of constructions that are labelled as passive. Kinkade (1988) discusses four different types of passives in Upper Chehalis (Salish). Kroeber (1991) in his comparison across the Salishian family states that "passives" in most Salish languages could be analysed as indefinite-subject transitive verbs from a morphological perspective since they are marked by an object suffix, indicating the person/number of the patient, followed by the passive morpheme. Kroeber maintains that they should be classified as passives nonetheless, since the agent can be expressed by an oblique phrase. According to Kroeber (1991), only four languages within the family (Squamish, Straits, Lushootseed, and Twana) have replaced the proto-typical Salish "passive" with a personal passive construction. These are cases in which the passive morpheme directly follows the transitivizer and the subject clitic marks the passive patient.

Sliammon presents a particularly interesting case within the Salish language family since Davis (1980) claims that the passive shows conflicting morphological and syntactic properties. I will argue that this is only an apparent morpho-syntactic mismatch. Rather, the patient of a passive predicate is morphologically marked as a patient because it is the patient. Under an impersonal passive analysis, the patient remains in object position and triggers object agreement. Such an analysis necessarily requires a reinterpretation of the R-to-O facts since this is the syntactic evidence which led Davis (1980) to claim that the passive patient behaves like a syntactic subject. A non-derivational Object Control analysis of "R-to-O" is argued for. I conclude that passives in Sliammon are true impersonal passive constructions both from a morphological and a syntactic perspective.

This paper is organized as follows: the remainder of §1 provides a general introduction to Sliammon morpho-syntax and basic clause structure. This work builds explicitly on a number of published and unpublished papers of Davis (1973, 1974, 1978, 1980) and owes much to this prior research. Sliammon data presented in this paper come from my own recent fieldwork. §2 provides independent evidence for an impersonal passive analysis in Sliammon based on evidence from simple matrix clause passives. §3 presents a summary of previous research on passives and focuses on the data which give rise to this apparent morpho-syntactic mismatch. §4 focuses on a re-

[1]Sliammon is used as a cover term for the language spoken by the Sliammon (Sliammon, B.C.), Klahoose (Cortes Island, BC), Homalco (Church House, B.C.) people. This study presents initial research findings based on data collected from March, 1996 to August, 1996. Special thanks to my Sliammon language consultant Mrs. Phyllis Dominic who is a native speaker of [ʔayʔaɬuθəm], the name given to the language by its speakers. Mrs. Dominic was raised by her paternal grandparents at Squirrel Cove on Cortes Island and moved to Sliammon, B.C. at age nine. She is currently 56 years of age and resides in Vancouver. The glosses are given by the speaker. A more literal gloss is provided in parentheses where necessary. Each utterance is encoded with the consultant's initials followed by the utterance number, e.g. (PD 3). VF indicates that these are forms volunteered by the consultant during elicitation sessions. The linguistic strategies employed by this speaker are of particular interest since they differ in a number of ways from the generalizations made by Davis (1980). This variation will be noted throughout the paper. The Sliammon data contained in this paper is provided with special permission from Mrs. Phyllis Dominic and family. Anyone else wishing to cite or reproduce this data, either in part or in whole, should contact both Mrs. Phyllis Dominic and myself for written permission.

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analysis of so-called R-to-O constructions. The intermediate "raised" nominal (NP) is examined in order to determine what relation it bears to both the matrix predicate and the embedded clause[2]. In this section, I explicitly compare and contrast an NP-movement (NP-mvt) analysis versus an NP-pro Control analysis. I will conclude that an NP-mvt/R-to-O analysis makes the wrong predictions with respect to many of the syntactic structures which are tested. I propose an NP-*pro* analysis in which the NP occupies the thematic object position within the matrix clause, and controls a null 3rd person pronominal within a non-matrix clause. §5 develops the proposed NP-*pro* Control analysis and explicitly compares the predictions made by syntactic Control, and discourse binding. §5.2 explores the consequences of a Control analysis within the framework of Huang (1989) and illustrates the overt interaction between syntactic Control and discourse binding. §5.3 focuses on determining the nature of these "embedded" non-matrix clauses, and outlines issues for further research.

§1.1 Introduction to Sliammon Clause Structure

The next section deals with the basic morpho-syntactic properties of the language. §1.2 briefly introduces the pronominal system of the language. §1.3 establishes word order in simple intransitive, transitive and passive clauses. As shown in §1.4-1.5 active clauses maximally contain a single overt direct 3person argument (not counting oblique or 'with object' Noun Phrases (NPs)) which, in the absence of other overt person marking, is interpreted as the absolutive (subject of intransitive or object of transitive). The generalizations regarding word order and interpretation of overt NPs are then extended to a brief survey of embedded clauses §1.5.2 in preparation for a closer look at Passives and R-to-O constructions in §2-4.

§1.2 Pronominal System

Sliammon is a split ergative language in which 1/2persons (sg&pl) are nominative/accusative, whereas 3persons show an ergative/absolutive pattern. The 3person subject of a transitive verb (3ergative) is identified by the presence of /-as/ on the predicate. 3person subjects of intransitives and 3person direct objects of transitive predicates pattern together as absolutives. The 3person absolutive in Sliammon is null (Ø). I refer the reader to Davis (1978) for an indepth discussion of the pronominal system in Sliammon (also Appendix A). The distinction between 1/2persons versus 3persons will play a central role in this paper. 1/2persons are marked by pronominal argument morphology on the predicate, whereas 3persons are identified by a null 3person argument *pro*.

Overt subject and direct object Noun Phrases (NPs) are not overtly Case marked. The term NP is used descriptively to include bare nouns NP[N], nouns preceded by a determiner NP[det N], and proper names[3]. Sliammon, like other Salish languages, is a language in which the verbal complex often corresponds to a complete sentence as shown in (1)[4].

(1) /ʔiɬtən-stW-mš-as/[5] [ʔéɬtənstə̀mšɪs]
eat-Caus-1sgObj-3erg 'They fed me' (PD 274)

[2]This research has been restricted to syntactic tests involving a small class of perception predicates including 'see, watch, hear' which were the same set of predicates which appear in Davis (1980). It is an empirical question to what extent these research results can be extended to other classes of predicates.

[3]NPs could be re-labelled as Determiner Phrases (DPs) within a theoretical framework which recognizes these constituents. Since an analysis of NPs is not central to the issue at hand, I will continue to refer to arguments of the predicate as NPs. See Matthewson (1996) for a discussion of the syntax and semantics of DPs in Salish.

[4]Abbreviations used in the morpheme-by-morpheme glosses are as follows: abs=absolutive, aux=auxiliary, C=Cleft, Caus=causative, comp=complementizer, conj=conjunctive(subjunctive), cont=continuative, CTr=control transitivizer, desid=desiderative, det=determiner, DP=Determiner Phrase, DO=direct object, d-topic=discourse topic, ep=epenthetic, erg=ergative, fut=future/unrealized, intr=intransitive, LS=lexical suffix, lv=linking vowel, MC=Main Clause, nom=nominalizer, NP=Noun Phrase, NTr= Noncontrol transitivizer, Obj=object, obl=oblique, ON=One Nominal Interpretation Law, pass=passive, past=past/perfective, perf=perfective, pl=plural, poss=possessive, ptc=particle, Q=question, quot=quotative, RC=relative clause, recip=reciprocal, red=reduplication, reflex=reflexive, R-to-O=Raising-to-Object, sg=singular, stv=stative, SC=Subordinate Clause, Su=subject, SuCl=subject clitic, trans=transitivizer, !=pragmatically odd, *=ungrammatical, ?=marginal (un)grammatical status, 3p=third person.

[5]/W/ surfaces as [u/o] in vocalic position, as [w] post-vocalically, as [g] pre-vocalically and as [x^w] word-finally. See Blake (1992) for a prosodic analysis of the vowel/glide/obstruent alternations in Sliammon.

§1.3 Word Order

Mainland Comox clauses are predicate-initial as discussed by Davis (1973 et seq), and Kroeber (1988, 1991). This is shown for Intransitive Verbs in (2), Transitive Verbs in (3) and Passive predicates in (4-5).

(2a)	/ʔi-ʔiɬtən-ø	John/[6]	[ʔéʔɛɬtɪn John]	
	cont-eat-3abs	John	'John is eating'	(PD 88)

(2b) *[John ʔéʔɛɬtɪn] (PD 88a)

As can be seen from (2a), an intransitive predicate must occur in clause-initial position followed by the subject NP. Reversing the order yields an ungrammatical sequence, as seen in (2b).

As can be seen from a comparison of (3a-b), an overt NP must also occur after a transitive predicate.

(3a)	/čaχ-a-t-ø-as	tə	ǰanxʷ/
	cook-lv-CTr-3abs-3erg	det	fish
	[čʌ́χʌtʌs	(tə)	ǰɛ́nxʷ][7] (PD 140)

(3b) *[(tə) ǰɛ́nxʷ čʌ́χʌtʌs] (PD 166)

'S/he cooked the fish'

The predicate also occurs in clause-initial position in passive construction followed by the passive agent and patient (4-5a). An overt NP in pre-predicative position is ungrammatical as shown by (5b-c).

(4)	Verb-trans-3abs-pass	Passive Agent		Patient	
(5a)	/čaχ-a-t-ø-əm	tə	saɬtxʷ	tə	ǰanxʷ/
	cook-lv-CTr-3abs-pass	det	woman	det	fish
	[čʌ́χʌtəm	(tə)	sáɬtxʷ	tə	ǰɛ́nxʷ]
	'the woman cooked the fish'				(PD 137)
(5b)	*[(tə) sáɬtxʷ	čʌ́χʌtəm		tə	ǰɛ́nxʷ]
	det woman	cooked		det	fish
	('the woman cooked the fish')				(PD 138)
(5c)	*[(tə) ǰɛ́nxʷ	čʌ́χʌtəm		(tə)	sáɬtxʷ]
	det fish	cooked		det	woman
	('the woman cooked the fish')				(PD 315)

(5d) shows that the passive agent must occur next to the predicate and before the passive patient.

[6]Proper names appear in English orthography throughout this paper.

[7]The determiner is often reduced or deleted in fast speech as indicated by the parentheses.

(5d)	*[čʌ́χʌtəm	tə	ǰɛ́nxʷ	(tə) sáɬtxʷ]
	cooked	det	fish	det woman
	('the woman cooked the fish')			(PD 273)

Establishing what the word order restrictions are is relevant since it will be important to show that the position of the intermediate NP in putative R-to-O constructions is not an alternative word order. This will be discussed in greater detail in §4.1.

§1.4 One Nominal Interpretation in Sliammon

Gerdts (1981:59) shows that a single overt nominal in a transitive clause which could be interpreted as either the subject or the object due to the lack of overt Case marking on DPs, is unambiguously interpreted as the object in Halkomelem (Salish). On this basis, she proposes the One Nominal Interpretation Law (ON) presented here in (6).

(6) One Nominal Interpretation Law (Gerdts 1981)

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

Whether or not the One Nominal constraint holds of Sliammon has not been systematically addressed by previous authors. (7) presents a typical Sliammon clause which is consistent with the ON. (7) can only mean 'he's eating the cockle' and can never mean *'the cockle ate it'.

(7)	/məkʷ-t-ø-as	tə	ƛɪʔɪm̓/
	eat-CTr-3abs-3erg	det	cockle
	[mʊ́kʷtʌs	(tə)	ƛʃʔɛm̓]
	'He's eating (ate) the cockle'		(PD 178)
	*'the cockle ate it'		

The data in the next section provides clearer evidence that the One Nominal Interpretation Law holds in Sliammon. These examples show that the ON cannot be violated in favour of pragmatic considerations. Consider (8):

(8)	!/ta̓ʔ-a-t-ø-as	tə	čəy-čuy̓/
	taste-lv-CTr-3abs-3erg	det	children
	![ta̓ʔatʌs	tə	čʃčuy̓]
	!'someone's tasting (tasted) the kids'		
	*'the kids tasted it'		(PD 188)

Mrs. Dominic: "it's like you're (someone's) tasting the kids!"

The plausible interpretation in which the single overt nominal is interpreted as the ergative is ungrammatical—the natural reading for (8), 'the kids tasted it' is rejected. A single overt nominal in an active transitive clause is interpreted as the absolutive even in cases where it yields a pragmatically odd interpretation. I conclude that the One Nominal Interpretation Law is a structural rather than a pragmatic constraint[8].

[8]Whether or not there are any special discourse contexts in which the One Nominal Interpretation Law can be violated is unknown at this present time. Such an undertaking would necessarily entail a systematic survey of MComox texts and the creation of discourse contexts similar to those discussed by H. Davis (1994). For the present speaker I have no evidence that the One Nominal is ever violated. To date attempts to violate this constraint have been rejected/avoided by PD.

§1.5 The Single Nominal Constraint

§1.5.1 Matrix Clauses

Active transitive clauses with two overt 3person nominals are systematically avoided; the corresponding passive is used instead. This is one of the significant differences between the Sliammon data reported by Davis (1980), as illustrated by (41a), and the Sliammon data collected in this study. As can be seen from (9-10a) active transitives with two overt 3person nominals (NPs) are ungrammatical. This generalization is encoded in the Single Nominal Constraint.

(9) **/məkʷ-t-ø-as tə Jim tə masiq̓ʷ/
eat-CTr-3abs-3erg det Jim det sea urchin

*[mʊ́kʷtʌs tə Jim tə mʌ́seq̓ʷʰ]
('Jim is eating sea urchin') (PD 177)

Mrs. Dominic: "It doesn't sound right in our language."

(10a) */čaχ-a-t-ø-as tə saɬtxʷ tə janxʷ/
cook-lv-CTr-3abs-3erg det woman det fish

*[čʌ́χʌtʌs tə sáɬtxʷ tə jɛ́nxʷ]

('The woman cooked the fish') (PD 322)

(10b) shows that changing the position of the overt arguments does not improve the grammaticality of this form.

(10b) *[čʌ́χʌtʌs tə jɛ́nxʷ tə sáɬtxʷ][9]
cooked det fish det woman

('The woman cooked the fish') (PD 323)

A passive (=10c) or cleft (=10d) is used to avoid this constraint.

(10c) /čaχ-a-t-ø-əm tə saɬtxʷ tə janxʷ/
cook-lv-CTr-3abs-pass det woman det fish

[čʌ́χʌtəm (tə) sáɬtxʷ tə jɛ́nxʷ]

'The woman cooked the fish' (PD 137a)

(10d) /hi(ɬ)ʔə səm saɬtxʷ čaχ-a-t-ø šə janxʷ/[10]
VF be it ptc fut woman cook-lv-CTr-3abs det fish

[hɛ́ʔ səm sáɬtxʷ čʌ́χʌtʰ šə jɛ́nxʷ]
'it's the woman that's gonna cook the fish' (PD 738)

[9] All other word orders (SVO, OVS, SOV) are also excluded by virtue of the word order constraints established in §1.2. These alternatives were tested and found to be ungrammatical.

[10] Kroeber (1991:189-90) Comox particle ʔə, which often introduces RCs in cleft constructions, at least when the cleftee is preceded by hi(ɬ) 'it's' (cf. Davis 1973).

In summary, only a single direct (non-focused) third person argument occurs in active transitive clauses. Furthermore based on the evidence presented in §1.4, the overt nominal must be interpreted as the absolutive argument, i.e., as the patient.

§1.5.2 Extension to Embedded Clauses

I will assume that the well-formedness constraints which hold of matrix clauses in Sliammon must also hold of embedded clauses. These constraints will become relevent to our discussion of R-to-O constructions and the position of the intermediate ("raised") NP. Consider the following embedded ergative (i.e., transitive) constructions with two overt 3person nominals. According to Davis (1980), R-to-O seems to be optional. However, for the consultant I worked with it is obligatory, as shown by a comparison of (11a-b).

(11a) /k̓ʷan-a-t-ø č Joe qə-qəy-t-ø-as Jim/
see-lv-CTr-3abs 1sgSu Joe cont-beat-CTr-3abs-3erg Jim

[k̓ʷɛ́næč Joe qéqeytʌs Jim]

'I'm watching Joe beat Jim up' (PD 558)

Cases with two overt nominals in the lower clause are ungrammatical as in (11b).

(11b) *[k̓ʷɛ́næč qéqeytʌs Joe Jim]
I'm watching beat up Joe Jim

('I'm watching Joe beat Jim up') (PD 559)

I conclude that (11b) is ungrammatical due to the presence of two overt nominals in the embedded clause and follows from the Single Nominal Constraint discussed in §1.5.

§2.0 Properties of the Sliammon Passive Construction

§2 provides independent evidence for an impersonal passive analysis in Sliammon based on evidence from matrix clause passives.

Davis (1974:16) claims that the only way to avoid specific mention of the patient in Sliammon is to use the passive construction. Passive provides a strategy to get around the One Nominal Interpretation Law discussed in §1.4. Note that in Davis' examples, the passive agent is introduced by the oblique marker /ʔə/.

(12) ƛuç'-ut-ø-əm ʔə tə tumɪš
shoot-CTr-3Abs-pass obl det man

'The man shot him/her/it/them'
(=someone was shot by the man) (Davis 1974:16)

The oblique marker is not used by the present consultant as shown in (13).

(13) /ƛaʔ-a-t-ø-əm tə čəy-čuỳ tə qaỳa/
taste-lv-CTr-3abs-pass det children det water

[ƛáʔatəm tə čɪ́čuỳ tə qáyᵊɛʔ]

'the kids tasted the water' (PD 359)

(14) is parallel to Davis' (1980:280, ex.11) which is also rejected by the present consultant.

(14)	*/qə-qəy-t-Ø-əm	ʔə	Joe	Jim]
	cont-beat-CTr-3abs-pass	obl	Joe	Jim
	*[qéqeytəm	ʔə	Joe	Jim]
	'Jim is being beaten up by Joe'			(PD 10a)

(14) shows that the oblique marker has not been elided in fast speech. If this were the case, then we would expect the speaker to be able to re-insert the missing element. The strategy employed by this speaker differs from Davis' (1980) account in that the passive agent is not overtly marked by the oblique particle /ʔə/. §2.1 provides evidence that the passive agent in Sliammon has been "demoted" nonetheless.

(15a-b) show that the passive agent can occur as a bare nominal, i.e., without an oblique particle preceding the first NP.

(15a)	/yaɬ(l)-a-t-Ø-əm	Sahana	tə	čəy-čuỳ/[11]
VF	call-lv-CTr-3abs-pass	Name	det	children
	[yéɬˡatɪm	Sahána	tə	čʃčuỳ]
	'Sahana called the kids'			(PD 189)

(15b)	/qə-qəy-t-Ø-əm	Joe	Jim/
	cont-beat-CTr-3abs-pass	Joe	Jim
	[qéqeytəm	Joe	Jim]
	'Joe beat Jim up' (=got beat up Jim by Joe)		(PD 32a)

For the present speaker, the passive /-əm/ construction is used to accomodate two 3person discourse participants in a single clause. Hess (1973, 1995) notes the same generalization for Lushootseed (Salish). A Sliammon example is given in (16a).

(16a)	/ɬaʔ-a-t-Ø-əm	tə	čəy-čuỳ	tə	qiqaθ/
VF	taste-lv-CTr-3abs-pass	det	children	det	deer
	[ɬáʔatəm	tə	čʃčuỳ	tə	qéqʌθ]
	'the kids tasted the deer' (=got tasted by the kids the deer)				(PD 187)

The passive agent must precede the passive patient as shown by the pragmatically odd sentence (16b).

(16b)	!/ɬaʔ-a-t-Ø-əm	tə	qiqaθ	tə	čəy-čuỳ/
	taste-lv-CTr-3abs-pass	det	deer	det	children
	![ɬáʔatəm	tə	qéqʌθ	tə	čʃčuỳ]
	!'the deer are tasting the kids'				
	*'the kids are tasting the deer'				(PD 191)

Mrs. Dominic: "It sounds like it is the deer that are tasting the kids."

[11]Further fieldwork is required to determine whether or not 'call' is a CVC or a CVCC root.

Furthermore, passives with a single overt NP are generally avoided by PD as shown by (17a-b)[12].

(17a)	?[ɬáʔatəm	tə	čʃčuỳ]
	taste	det	children
	('It got tasted by the kids')		(PD 364)

Mrs. Dominic: "incomplete, what are they tasting? You need to say what they are tasting."

(17b)	?[ɬáʔatəm	tə	qáʔyɛ]
	taste	det	water
	('the water got tasted')		(PD 590)

Mrs. Dominic: "who tasted it? You have to say who's tasting it."

§2.1 Evidence that the Passive Agent is Demoted

In this section I show that the passive agent has been demoted, thus the only direct argument of the predicate is the one construed as the third absolutive Patient. This is summarized in (18).

(18)	Verb-trans-3abs-pass	Passive Agent	Patient

Davis (1980) presents an argument based on the position of the overt NP in R-to-O constructions that the Passive Agent has been demoted. Recall that an active transitive clause containing two overt nominals is excluded by the Single Nominal Constraint, as shown in (19a).

(19a)	*/kʷan-a-t-Ø	č	yaɬ(l)-a-t-Ø-as	Sahana	čəy-čuỳ/
	see-lv-CTr-3abs	1sgSu	call-lv-CTr-3abs-3erg	Sahana	kids
	*[kʷə́næč		[yéɬˡætʌs	Sahana	čʃčuỳ]]
	'I'm watching [Sahana calling the kids]'				(PD 341)

"Raising" of 'Sahana' in (19b) avoids the constraint against two overt nominals per active transitive clause, since 'Sahana' occupies a position within the main clause and 'the kids' occupy a position within the subordinate clause.

(19b)	/kʷan-a-t-Ø	č	Sahana	yaɬ(l)-a-t-Ø-as	čəy-čuỳ/
	see-lv-CTr-3abs	1sgSu	Sahana	call-lv-CTr-3abs-3erg	kids
	[kʷə́næč		Sahana	yéɬˡætʌs	čʃčuỳ]
	'I'm watching Sahana calling the kids'				(PD 284)
	(='I'm watching Sahana while he's calling the kids')				

(20) shows that the passive agent 'Sahana' cannot appear in this intermediate position. Davis (1980:281) claims that the ungrammaticality of examples like (20) provide an argument that the passive agent must have be "demoted" since the subject of an active predicate can be raised.

[12]In principle, it should be possible to elicit passives with only a single overt nominal. Watanabe (p.c.) has evidence from MComox narrative texts that the passive agent (3sg/pl) may remain unexpressed.

(20) */kʷan-a-t-ø-uɬč Sahana yaɬ(ɪ)-a-t-ø-ɪt čəy-čuỳ/[13]
see-lv-CTr-3abs-past 1sgSu Sahana call-lv-CTr-3abs-pass kids

*[kʷə́nætò́ɬč Sahana yéɬɪætɪ̀t čʃčuỳ]

('I've seen Sahana call the kids') (PD 286)
(=I've seen the kids get called by Sahana)
*'I've seen Sahana get called by the kids' ?? (see PD 342)

Based on a comparison of (19b) and (20), I conclude with Davis that the passive agent does not occupy the subject position within the lower clause. (21a-b) show similar facts. In (21a) the passive agent 'Joe' occurs within the embedded clause.

(21a) /təχʷə-nw-ø č qə-qəy-θɪ-ɪt səm Joe/
know-NTr-3abs-past 1sgSu cont-beat-CTr.2sgObj-pass fut Joe

[tó́χʷənəxʷč qéqeyθɪ̀t səm Joe]

'I know that Joe's gonna beat you up' (PD 412)
(=I know that you gonna get beat up by Joe)

This overt nominal cannot occupy the intermediate position between the matrix and embedded predicates as shown in (21b).

(21b) */təχʷə-nw-ø č Joe qə-qəy-θɪ-ɪt səm/
know-NTr-3abs 1sgSu Joe cont-beat-CTr.2sgObj-pass fut

*[tó́χʷənəxʷč Joe qéqeyθɪ̀t səm]

('I know that you're gonna get beat up by Joe') (PD 413)

Mrs. Dominic: "wrong word order!"

(21b) therefore provides evidence for the oblique/adjunct-like status of passive agent.

§2.2 Analysis of the Passive Construction

The next section provides an analysis of the structure of the passive in Sliammon. An active sentence is discussed first, and then the corresponding passive construction is developed in two steps. First, the syntactic status of the passive morpheme is identified, and second, the adjoined-position of the passive agent is motivated.

(22a) is an active transitive clause in Sliammon.

(22a) /čaχ-a-t-ø-as tə janxʷ/
cook-lv-CTr-3abs-3erg det fish

[čʌ́χʌtʌs (tə) jə́nxʷ]

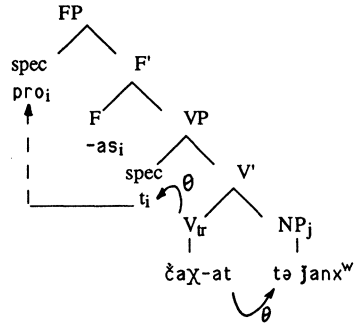
'S/he cooked the fish' (PD 140)

[13]Note that -it appears in non-matrix passives as discussed by Davis (1980) and Kroeber (1991).

The structural representation of (22a) is shown in (22b). It will be motivated in a step-by-step fashion. I will be assuming a Government and Binding (GB) model (following Pollock 1989, Chomsky 1991) in which there is a separation between lexical and functional projections.

(22b) **Structure of Main Clause Active**

'S/he cooked the fish'



The transitive verb čaχat is the head of the lexical projection (VP). The direct object NP_j is generated as sister to V, and is theta-marked by this V-head. The subject argument pro_i is base-generated in [Spec, VP] as the VP-internal subject, and is also theta-marked by the transitive verb. Theta-role assignment is therefore uniform and occurs within VP. Having motivated the structure of VP, we now turn to a discussion of the functional projection (FP). The 3rd person agreement marker -as is a bound inflectional morpheme. As a functional head (F), it introduces the functional projection (FP)[14]. Although theta-role assignment takes place within VP, within this framework Case assignment occurs within FP. In (22b) the subject pro_i moves from [Spec, VP] to [Spec, FP] in order to get ergative Case. Case assignment takes place via Spec-head agreement within this functional projection. This is a local relation in which the head of the FP is coindexed with the argument which occupies its specifier. In (22b) pro_i and $-as_i$ enter into this Spec-head relation[15]. Finally, the verb čaχat raises, via head movement, to incorporate the higher functional head $-as_i$. This movement yields the correct order of morphemes within the verbal complex (cf.22a). Now compare the structure of this active clause with the passive in (23a).

(23a) /čaχ-a-t-ø-əm tə saɬtxʷ tə janxʷ/
cook-lv-CTr-3abs-pass det woman det fish

[čʌ́χʌtəm (tə) sʌ́ɬtxʷ tə jə́nxʷ]

'the woman cooked the fish' (PD 137)
(='the fish got cooked by the woman')

The tree in (23b) focuses on the status of the passive morpheme -əm in Sliammon. It is a partial structure in which the passive agent 'by the woman' has been omitted for purposes of exposition[16].

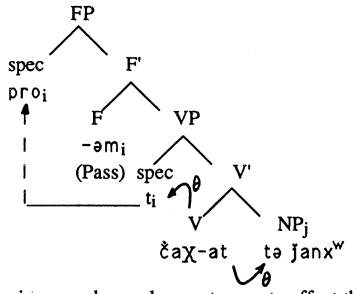
[14]Since the identity of this functional projection has not been explicitly tested, it is underspecified. All that is required for this analysis is the existence of a higher functional head. The identification of FP remains a topic for further research.

[15]I assume that absolutive Case is assigned either within VP under government, or within another functional projection located between FP and VP in (22b). Since the 3rd person absolutive is null (-Ø), there is no morphological evidence which allows us to choose between these alternatives. I leave this issue unresolved since it is not central to the present discussion.

[16]Although I have not been able to elicit any examples in which the passive agent is absent, Watanabe (p.c.) confirms from his MComox text collection that a 3sg/pl passive agent can remain unspecified.

(23b) **Structure of the Sliammon Passive**

'The fish got cooked'

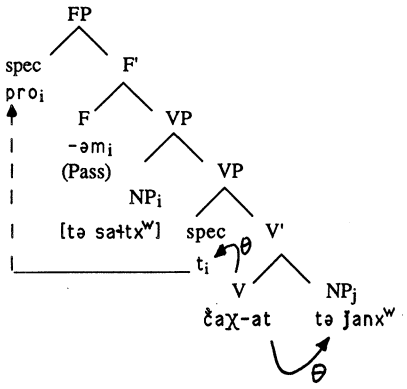


The passive morpheme does not seem to affect theta-role assignment since the agent and patient may be overtly realized. As before, the external theta-role is assigned to *pro*$_i$ which originates in [Spec, VP]. The passive morpheme which occupies the head of a higher functional projection binds this null subject pronominal. Binding takes place as a result of Spec-head agreement within FP[17]. The passive morpheme delinks the subject from the d-topic which has the added effect of making the agent backgrounded in Sliammon (cf. Thomason & Everett 1993 re: background agent in Flathead Salish)[18]. As with the active, the object NP$_j$ 'fish' is theta-marked within VP. It is Case-marked either within VP or within an object agreement phrase external to VP. Again both options are consistent with the presence of null absolutive agreement.

The position of the passive agent is motivated by word order constraints discussed in §2.0, where we saw that the passive agent must precede the passive patient. The structure I propose appears in (23c).

(23c) **The Syntactic Position of the Passive Agent**

'The fish got cooked by the woman'



[17]Actually, the MComox data presents us with two alternatives: (i) the passive morpheme could bind the subject argument in [Spec, VP] or (ii) the passive morpheme could bind the argument in the specifier of its maximal projection (i.e., Spec-head relation in FP). Evidence from MComox alone does not allow us to decide between these two alternatives. Cross-linguistic evidence from Cowichan (Salish) does provide evidence for (ii) which is the option I have been presenting here. The Cowichan data will be discussed in §3.1.

[18]In §2.4 we shall see that this binding relation allows the discourse topic (d-topic in the sense of HDavis 1994) to be mapped onto the object *pro* instead. The topic switching function of passives (i.e. from subject-topic in actives to object-topic in passives) will be further developed in §5.

This surface order is consistent with the passive agent (NP$_i$) being left-adjoined to VP as shown in (23c). The passive agent is coindexed with the subject *pro*$_i$ which originates in [Spec, VP]. This analysis derives the correct word-order restrictions. The passive agent has the status of an Argument-adjunct (i.e., an adjunct which is construed with an argument position) as discussed by Grimshaw (1990). The NP in adjunct position inherits subject Case from *pro*$_i$ in order to be visible at the level of Phonetic Form (PF). As before, *pro*$_i$ raises from [Spec, VP] to [Spec, FP] for Case. The remainder of the derivation follows from the discussion of (23b). The predicate čaχat raises in order to incorporate the passive morpheme, yielding the predicate-initial word order in (23a).

Before proceeding to the next section, I present independent evidence from Instrumental and Locative Adjuncts (generally assumed to be VP-adjoined) which provides further support for the claim that the passive agent is adjoined. If 'Joe' can not occupy the intermediate position between the two predicates as in (21b) because of its adjunct status, then all other things being equal, other VP-adjuncts should be ruled out as well. This prediction is supported by the ungrammaticality of (24b-25b) since instrumental and locative adjuncts cannot occupy this "intermediate" position either.

Instruments

(24a) shows the canonical position occupied by the instrumental phrase 'with a stick'.

(24a)	/təχʷ-nW-Ø	č	saṗ-a-θi-it	səm	kʷə	χapaẏ/
	know-NTr-3abs	1sgSu	hit-lv-CTr.2sgObj-pass	fut	det	stick
	[tóχʷənəxʷ	č	sə́ṗaθèt	səm	kʷə	χáṗaẏ]
	'I know that they're gonna beat you up with a stick'					(PD 653)

The instrumental adjunct cannot appear in a position between the subject clitic and the embedded predicate (24b).

(24b)	*/təχʷ-nW-Ø	č	kʷə	χapaẏ	saṗ-a-θi-it	səm/
	know-NTr-3abs	1sgSu	det	stick	hit-lv-CTr.2sgObj-pass	fut
	*[tóχʷənəxʷ	č	kʷə	χáṗaẏ	sə́ṗaθèt	səm]
	('I know that with a stick they're gonna beat you up')					(PD 677)

Locatives

(25a) shows the canonical position of the locative phrase 'at school'.

(25a)	/təχʷ-nW-Ø	č	qə-qəy-θi-it		səm	kʷə	skʷul/
	know-NTr-3abs	1sgSu	cont-beat-CTr.2sgObj-pass		fut	det	school
	[tóχʷənəxʷč		qéqeyθìt		šəm	kʷ	skʷúl]
	'I know that they're gonna beat you up at school'						(PD 649)

The locative adjunct cannot appear in a position between the subject clitic and the embedded predicate as shown in (25b).

(25b)	*/təχʷ-nW-Ø	č	kʷə	skʷul	qə-qəy-θi-it		səm/
	know-NTr-3abs	1sgSu	det	school	cont-beat-CTr.2sgObj-pass		fut
	*[tóχʷənəxʷč		kʷ	skʷúl	qéqeyθìt		šəm]
	('I know that at school they're gonna beat you up')						(PD 650)

Mrs. Dominic: "You know the school? You wouldn't say it this way!"

The consultants comments with respect to (25b) suggest that this intermediate NP-position is reserved solely for the thematic object of the matrix predicate. The nature of this position is the focus of §4.

§2.3 Single Overt Nominal as Agent

When the passive patient is a 1/2 person which is marked by pronominal argument morphology on the predicate, a single overt 3person nominal is interpreted as the passive agent. This is illustrated schematically in (26).

(26) Verb-trans-1/2Obj-pass [Passive Agent]

In a particular discourse context, a 3person discourse topic can be interpreted as the passive agent as in (27a).

(27a) /k̓ʷan-nW-may-əm/
see-NTr-1sgObj-pass

[k̓ʷə́nomàyəm]

'They've seen me' (PD 7)
(='I got seen by them')

Mrs. Dominic: "Just like the neighbours across the street. They've seen me sitting on my balcony cleaning cedar roots."

(27b) shows an example in which the passive agent phrase 'this woman' appears without an overt oblique marker.

(27b) /ʔiɬtən-stW-may-əm	saɬtxʷ	sɬθuk̓ʷ/	
eat-Caus-1sgObj-pass	woman	today	
[ʔéɬtənstòmayɪm	sáɬtxʷ	sɬθə́k̓ʷ]	

'this lady fed me today' (PD 9)
(='fed me today by this woman')

In addition there are some third person cases in which the overt nominal is interpreted as the Agent. The discourse contexts are included for clarity.

(28) Verb-trans-3abs-pass [Passive Agent]

Discourse Context: Talking about 'Sahana tasting the deer' (PD 185).

(29) [ɬaʔ-a-t-Ø-əm	tə	čəy-čuỳ/	
VF taste-lv-CTr-3abs-pass	det	children	
[ɬáʔatəm	tə	čʃčuỳ]	

'the kids tasted it' (the deer) (PD 187a)
(=it got tasted by the kids)

As noted earlier, the passive provides a way of circumventing the One Nominal Interpretation.

§2.4 Discourse Function of the Passive

Kinkade (1988,1989, 1990), Roberts (1994), and H.Davis (1994) all note the important discourse function of the passive morpheme in Salish. The passive appears to have the ability to reverse the canonical mapping of grammatical relations onto syntactic positions. Before discussing the discourse function of the passive in Sliammon, it will be useful to define several terms which will be utilized in this section. H.Davis (1994:120) defines the discourse topic (d-topic) as follows:

(30) Discourse Topic (d-topic)

The d-topic is "the protagonist of a given discourse".

As we shall see, active and passive sentences have distinct discourse functions in Sliammon. In particular, the d-topic is mapped onto different argument positions in active/passive clauses. This is represented schematically in (31).

(31a) **Active Clause**

$Verb_{active}$	Subj[pro]	Obj[NP]
	Agent d-topic	Patient

(31b) **Passive Clause**

$Verb_{passive}$	Adjunct[NP]	Obj[pro]
	Passive Agent	Patient d-topic

In (31a) the d-topic is mapped onto the subject *pro*, whereas in (31b) the d-topic is mapped onto the object *pro*. These definitions will also be useful in our discussion in §5. Now consider the mapping of the d-topic in Sliammon active and passive clauses.

Consider the following discourse situations in which both active and passive sentences can appear. In (32a) Mary-Anne is set up as the discourse topic (d-topic).

(32a) Mary-Anne is Jim's wife (PD 261)

In (32b), Mary-Anne remains the d-topic.

(32b) /ʔaχ qʷay=ɪgan-s	Mary-Anne	(sɬθuk̓ʷ)/	
bad mind-3poss	Mary-Anne	(today)	
[ʔáχ qʷáyegəns	mǽlɪʔæn	(sɬθə́k̓ʷ)]	

'Mary-Anne is sad (today)' (PD 262)

(33a) is a simple transitive clause uttered in the discourse context of (32). The single overt nominal 'Jim' is interpreted as the patient in keeping with the One Nominal Interpretation. The discourse topic 'Mary-Anne' is construed as the subject. This shows the canonical mapping of d-topic onto subject position in active clauses.

(33a) /qə-qəy-t-Ø-as	Jɪm/	[qə́qeytʌs Jɪm]	
cont-beat-CTr-3abs-3erg	Jim	'she beat Jim up' (she=Mary-Anne)	(PD 271)

When a passive predicate with a single overt NP (=33b) is uttered in the context of (32), the single NP 'Jim' is interpreted as the passive agent. The discourse topic 'Mary-Anne' is interpreted as the patient of the passive predicate. Since the passive morpheme binds the null subject *pro*, the d-topic 'Mary-Anne' is mapped onto the null 3rd person pronominal occupying the direct-object position.

(33b) /qə-qəy-t-Ø-əm Jim/ [qéqeytəm Jim]
cont-beat-CTr-3abs-pass Jim ('she got beaten up by Jim') (PD 263)

Mrs. Dominic: "sounds like Jim beat Mary-Anne up!"

The presence of the passive morpheme therefore undoes the One Nominal effect: a single overt NP is interpreted as the passive agent, and not as the patient (absolutive).

To summarize, I have provided independent evidence based on matrix passives which supports Kroeber's characterization of these constructions as basically "transitive" in nature. I have proposed an analysis in which the passive morpheme binds a null pronominal in subject position. This binding relation therefore allows the discourse topic to map onto a null 3person argument in direct object position. The passive agent appears in a VP-adjoined phrase coindexed with the subject. In Sliammon, passives are one of the few ways to express two 3 persons discourse participants in a single clause.

Having established that Sliammon has an impersonal passive construction, I now present the R-to-O constructions discussed by Davis (1980).

§3.0 Previous Analyses

§3.1 Davis' (1980) Analysis: a Morpho-syntactic Mismatch

Davis (1980) discusses the properties of passive constructions in three Central (Coast) Salish languages: Lushootseed, Sliammon and Cowichan. He proposes that these languages form a kind of passive continuum based on their morphological and syntactic properties.

(34) Passive Continuum:

Cowichan[19].....Sliammon.....Lushootseed

Impersonal Passive (IP)	Mixed	Personal Passive (PP)
morph: IP syntax: IP	morph: IP syntax: PP	morph: PP syntax: PP

Davis observes (following Hess 1976) that the patient of the passive in Lushootseed is morphologically marked as the subject, and displays the behaviour of a syntactic subject. This is a case in which the morphological and syntactic properties of the passive patient coincide and is consistent with a personal passive analysis of these facts. In a personal passive construction, exemplified by (35b) in Lushootseed, the agent appears in an oblique phrase and the passive patient serves as the syntactic subject of the clause as is shown by the presence of the 2 person subject clitic. This is the same subject clitic which appears in the parallel active sentence in (35a). The passive morpheme (-əb) appears directly after the transitivizer (-t-) and before the subject morphology as in (35b). It is also in complementary distribution with object agreement as shown by a comparison of (35a-b). (35c) is the proposed structure of the Lushootseed personal passive.

[19]Lillooet, a northern Interior Salish language provides additional evidence for this point on the continuum. Henry Davis (p.c.) reports that passives in Lillooet retain morphological object marking; however, there is no evidence that the patient has undergone raising to become the surface syntactic subject. Lillooet passives also appear to be true "impersonal" passives.

Lushootseed

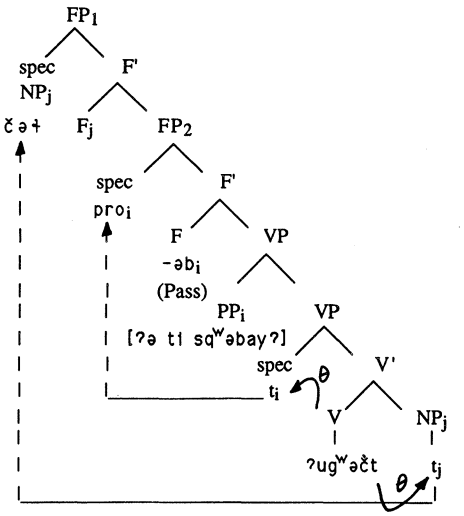
(35a) ʔu-gʷəč-əd-Ø čəɬ [tɨ sqʷəbayʔ] Active
perf-look for-CTr-3abs 1plSuCl [det dog]

'We looked for the dog' (adapted from T.Hess 1995:10)

(35b) ʔu-gʷəč-t-əb čəɬ [ʔə tɨ sqʷəbayʔ] Passive
perf-look for-CTr-pass 1plSuCl [obl det dog]

'The dog looked for us' (adapted from T.Hess 1995:24)
(=we were looked for by the dog)

(35c) **Structure of Personal Passive in Lushootseed**



As before, the passive morpheme (here -əb) binds the VP-internal subject *pro*$_i$. As we have noted the passive morpheme in Lushootseed is in complementary distribution with object agreement. Although the verb assigns a theta-role to the object NP$_j$, this object NP cannot get object Case as confirmed by the absence of object agreement. The passive morpheme binds the subject *pro*$_i$ in [Spec, FP$_2$]. The presence of an overt subject clitic motivates the existence of FP$_1$. The VP-internal object raises to the specifier of FP$_1$ in order to receive subject Case. The passive agent appears in an oblique phrase headed by the oblique particle /ʔə/. The predicate raises in order to incorporate the passive morpheme. The subject čəɬ cliticizes to the verbal complex. This yields the morphological order observed in (35b).

Consider Cowichan, which is at the other end of the continuum. Davis 1980:284 (following Hukari 1976) states that the patient of a passive predicate in Cowichan is morphologically marked as the object as can be seen by a comparison of the active and passive sentences in (36a-b). Hukari reports that there is no evidence that the patient of a passive predicate ever behaves as a syntactic subject (Davis 1980:285 fn.10).

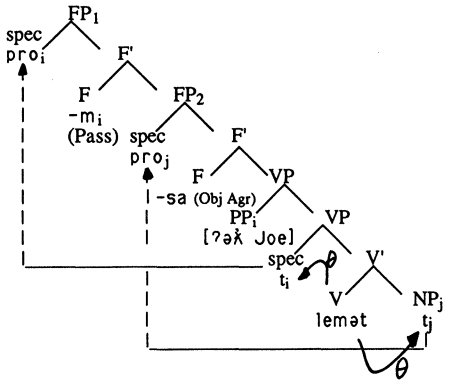
Cowichan (Vancouver Island Halkomelem)

(36a) lèmə-t-sámə cən
look-CTr-2Obj I Active
'I look at you' (Hukari 1976; Davis 1980:284)

(36b) lèmə-t-sá·-m ʔəx̌ Joe
look-CTr-2Obj-intr (pass) by Joe Passive
'you're looked at by Joe' (Hukari 1976; Davis 1980:284)

This is a case in which the morphological and syntactic behaviour of the passive patient coincide and is consistent with an impersonal passive analysis; the passive agent appears in an oblique phrase, as in the personal passive. The difference is that the passive patient triggers object agreement (cf. 36c).

(36c) **Structure of Impersonal Passive in Cowichan**



The passive morpheme -m in Cowichan is in complementary distribution with subject agreement and is generated in the head of FP_1. The passive morpheme binds the VP-internal subject pro_i in [Spec, FP_1] via Spec-head agreement. The passive agent appears in an oblique phrase headed by the oblique particle /ʔə/. The verb assigns a theta-role to the object NP_j which moves to [Spec, FP_2] in order to get object Case. In Cowichan the predicate must also raise in order to incorporate the inflectional morphology (F-heads) yielding the [V-CTr-Obj-pass] order in (36b).

Cowichan shows clearly that the passive morpheme must bind the subject pro_i in [Spec, FP_1]; the binding relation must be a Spec-head relation. If the object agreement phrase (FP_2) is generated external to VP as in (36c), then the relation between the passive morpheme, as the head of FP_1, and the subject in [Spec, VP] is non-local. Since binding is a local relation, we conclude that the passive morpheme in FP_1 cannot bind the subject argument in [Spec, VP].

If the object agreement phrase (FP_2) were generated within VP (intervening between VP and V'), then the binding relation between the passive morpheme and the subject in [Spec, VP] would be a local relation. We could also correctly predict the [V-CTr-Obj-pass] order. However, this analysis would have the following problem: the verb and the subject argument which it theta-marks would be interrupted by the intervening object agreement projection. This alternative would also have to be ruled out. Therefore, if we assume that the passive morpheme binds the subject in [Spec, VP], we have a problem no matter where we propose to generate the object agreement projection. This is an example of an ordering paradox.

By proposing that the passive morpheme binds the subject pro_i once it has moved to [Spec, FP_1] and that binding occurs as a result of Spec-head agreement, then we avoid this ordering paradox altogether. The Cowichan example provides evidence that the passive morpheme must bind the argument which occupies the specifier of its own maximal projection [=Spec, FP]. I have proposed a parallel analysis for Sliammon based on this cross-linguistic evidence from Cowichan.

Sliammon

Davis (1980:283) suggests that Sliammon passives occupy an intermediate position on the passive continuum in (34), since they display mixed morpho-syntactic properties. Davis claims that the patient acts like a syntactic subject, in that it can undergo Raising-to-Object (R-to-O), but has the morphological properties of a pronominal object suffix as shown by the presence of 1/2 person object agreement. In §3.1.1 I review the morphological characteristics of the Sliammon passive, and in §3.1.2 I present the syntactic properties of the passive construction as discussed by Davis (1980).

§3.1.1 Morphological Properties of Passives in Sliammon

Passives in Sliammon are formed on transitive stems. The patient is marked by an object suffix followed by the passive suffix /-əm/. Note that the 1/2 sg object suffixes are fused with the control transitivizer /-t/.

(37a) /saṗ-θi-əm/ [sə́ṗθem]
hit-CTr.2sgObj-pass 'you got hit' (PD 22)

(37b) /ḵʷa ʔə saṗ-nW-Ø-əm Doug kʷə čəy-čuỳ/
quot ptc hit-NTr-3abs-pass Doug det CəCpl-child

[ḵʷa ʔ sə́ṗoxʷəm Doug kʷə čɬ́čuỳ]

'Some kids accidently hit Doug' (PD 675)

The passive in Sliammon does not trigger subject agreement as shown in (38). A 1/2 person subject clitic does not co-occur with a passive predicate as shown in (38a).

(38a) */saṗ-t-əm čxʷ/ *[sə́ṗtəm čxʷ]
hit-CTr-pass 2sgSuCl 'you got hit' (PD 319)

(38b) establishes that the 3person subject suffix (i.e., 3erg) does not co-occur with a passive predicate either.

(38b) */saṗ-t-əm-as/ *[sə́ṗtəmas]
hit-CTr-pass-3erg 'he got hit' (PD 659)

Instead, the passive sentences in (37) show object agreement like their active counterparts in (39). Namely, /-θi/ marks the 2nd person patient in both the passive and active sentences as shown by a comparison of (37a) and (39a). The 3rd person patient is marked by the -Ø absolutive in both passive and active clauses as in (37b) and (39b).

(39a) /saṗ-θi čʼ [sə́ṗθeč]
hit-CTr.2sgObj 1sgSuCl 'I hit you' (PD 739)

(39b) /saṗ-t-Ø-as Ruben/ [sə́ṗtʌs Ruben]
hit-CTr-3abs-3erg Ruben 'He hit Ruben' (PD 743)

The linear order of morphemes is summarized in the templates in (40). We see that the passive morpheme and subject agreement are in complementary distribution: in (40a) the presence of passive morphology is incompatible with the appearance of a 1/2 person subject clitic; in (40b) the presence of passive morphology is incompatible with the appearance of the 3rd person subject suffix. Also, note that the patient of a passive predicate is morphologically marked as the object inasmuch as it triggers object agreement.

(40a) **1/2 persons**

Root-CTr-Object	SuCl	Active
Root-CTr-Object-Passive	(*SuCl)	Passive

(40b) **3rd Persons**

Root-CTr-3absØ	-3erg	Active
Root-CTr-Object-Passive	(*-3erg)	Passive

This provides morphological evidence in support of an impersonal passive analysis in Sliammon. The language does not have morphological properties of personal passive: it lacks subject agreement with the passive patient; moreover, it maintains object agreement with the passive patient.

§3.1.2 Syntactic Evidence from R-to-O in Sliammon

This section addresses R-to-O in active clauses as discussed in Davis (1980). He notes an asymmetry between the behaviour of subjects versus the behaviour of objects which will be illustrated below. Davis presents (41a) to show that the overt nominals 'Joe' and 'Jim' can both occur within the embedded clause.

(41a) /papkʷ-a-t č s qə-qəy-t-s Joe Jim/[20]
watch-lv-CTr 1sgSuCl nom cont-beat-CTr-(s)he Joe Jim

'I watch Joe beat Jim up' (Davis 1980:280)

According to Davis (1980), (41b) shows that the subject of the embedded clause can be raised to become the object of the matrix clause since the overt NP 'Joe' can appear after the subject clitic [č] and before the subordinate proclitic (nominalizer) /s-/.

(41b) /papkʷ-a-t č Joe s qə-qəy-t-s Jim/
watch-lv-CTr 1sgSuCl Joe nom cont-beat-CTr-(s)he Jim

'I watch Joe beat Jim up' (Davis 1980)

According to Davis, no matter which NP is raised, it is interpreted as the embedded subject.

(41c) /papkʷ-a-t č Jim s qə-qəy-t-s Joe/
watch-lv-CTr 1sgSuCl Jim nom cont-beat-CTr-(s)he Joe

'I watch Jim beat Joe up' (Davis 1980)

He concludes from active sentences like (41b-c) that Sliammon does not allow the object of the embedded clause to raise to the object of the matrix predicate. Davis treats first and second persons as instances of Ascension Copy (AC), a process which he treats as the 1/2 person analogue of R-to-O. AC is the copying the person and number

[20]Davis (1980) uses an abstract representation which does not reflect the phonetic realization. I have taken the liberty of inserting phonemic slashes. I have also modified Davis' morpheme-by-morpheme glosses so that they are more consistent with current usage. The form given by Davis for 'watch' is also morphologically complex. The root appears to be /pakʷ/ 'observe' as in [pákʷač] 'I observed s.o.' Thanks to Mrs. Elsie Paul of Sliammon who provided this form.

features of the embedded subject onto the matrix predicate as object agreement. Again Davis claims that there is a subject/object asymmetry in AC. In active clauses, embedded objects do not undergo AC whereas embedded subjects do.

Consider AC in (42a): object agreement occurs both on the main predicate, and on the embedded predicate. The proclitic θ is the 2nd singular possessive morpheme and marks the subject of a nominalized subordinate (non-matrix) clause.

(42a) /papkʷ-a-t-sɪ č [θ qə-qəy-t-Ø Joe]/[21]
watch-lv-CTr-2sgObj 1sgSuCl [2sgposs cont-beat-CTr-3abs Joe]

'I watch you beat Joe up' (Davis 1980:281)
(='I watched you, your beating Joe up')

Davis claims that object-to-object Ascension Copy is blocked in Sliammon: it is not possible to copy the second person object agreement onto the matrix sentence as shown by the illformedness of (42b-c).

(42b) */papkʷ-a-t-sɪ č s qə-qəy-t-sɪ-s Joe/
watch-lv-CTr-2sgObj 1sgSuCl nom cont-beat-CTr-2sgObj-(s)he Joe

(42c) */pápkʷ-a-t-sɪ č qə-qəy-t-sɪ-s Joe/
watch-lv-CTr-2sgObj 1sgSuCl cont-beat-CTr-2sgObj-(s)he Joe

(Davis 1980)

Summary of the Subject/Object Asymmetry:

(42d) Subjects of non-matrix active clauses can undergo R-to-O/AC
Objects of non-matrix active clauses do not undergo R-to-O/AC

Passives

In parallel passive cases, Davis (1980) argues that the embedded patient 'Jim' must have been raised to subject of subordinate clause since it can undergo subsequent R-to-O. This is seen in the third person example in (43a).

(43a) /pápkʷ-a-t č Jim s qə-qəy-t-Ø-ɪt ʔə Joe/
watch-lv-CTr 1sgSuCl Jim nom cont-beat-CTr-3abs-pass obl Joe

'I watch Jim being beaten up by Joe' (Davis 1980:281)

Davis treats first and second persons in a similar way. He argues that the passive patient 'you' must have been raised to subject position since it can also undergo Ascension Copying as in (43b)[22].

(43b) /papkʷ-a-t-sɪ č s qə-qəy-t-sɪ-ɪt ʔə Joe/
watch-lv-CTr-2sgObj 1sgSuCl nom cont-beat-CTr-2sgObj-pass obl Joe

'I watch you being beaten up by Joe' (Davis 1980:282)

In embedded passives this results in object morphology (2sgObj) appearing on both the matrix and embedded predicates. Davis (1980) takes this as support for a personal passive analysis in which the passive patient has

[21]Davis' (1980) representations do not reflect fusion of the transitivizer and following object suffix. This will be discussed in §3.2.

[22]As noted in §1.2 MComox has a split ergative system: 1/2 vs 3rd persons. In §5.2 I will propose a Control analysis of R-to-O constructions which also accesses the differences between 1/2 vs 3rd persons. Ascension Copy will be reinterpreted as well.

become the syntactic subject of the embedded clause (and then has further raised to object position of the matrix clause). He concludes that the patient of a passive must have become the syntactic subject of its clause, since it can then undergo further Raising-to-Object/Ascension Copy. The morphological facts in (37-39) are incompatible with this position. Davis is therefore left with the following question.

(44) "Why should the [syntactic] subject of a Sliammon passive look, morphologically, like an object?"

(Davis 1980:283)

§3.2 Gerdts (1989)—T-Object Fusion: a Morpho-phonological Analysis

Gerdts (1989) attempts to reconcile this morpho-syntactic mismatch by offering a morpho-phonological solution. In this next section I present her arguments and extend the discussion to the Sliammon data. Gerdts (1989) shows that Halkomelem and Sliammon both display the same morpho-syntactic mismatch—what she calls 'funny' passives. She also argues for a personal passive analysis in Halkomelem based on R-to-O. Gerdts proposes a morpho-phonological explanation based on the fusion of the overt transitivizer and object pronominals (T-Obj Fusion) in order to account for the unexpected object agreement. She claims that since passives must be formed on transitive stems and the transitivizer has been fused with the following object morphology, introduction of the transitivizer will necessarily entail introducing object marking. This is illustrated in (45a-b).

T-Object Fusion in Halkomelem

(45a) shows fusion of the Control transitivizer with the 1st person object and passive, while (45b) shows fusion of this transitivizer with the 2nd person object and passive.

(45a)	nɨ	ləm-əθeləm	ʔə	ɬə	sɬeniʔ
	aux	look-CTr.1sgObj.intr (pass)	obl	det	woman

'I was looked at by the woman' (Gerdts 1989:186)

(45b)	nɨ	ləm-əθa.m	ʔə	ɬə	sɬeniʔ
	aux	look-CTr.2sgObj.intr (pass)	obl	det	woman

'You were looked at by the woman' (Gerdts 1989:186)

Gerdts extends this analysis to Davis' description of Sliammon. She claims that T-Obj fusion accounts for the apparent morpho-syntactic mismatch noted in (44). An extension of Gerdts (1989) analysis to Sliammon encounters a problem: T-Obj fusion in Sliammon only occurs when the Control Transitivizer (-t) is followed by a 1/2 person singular object, as shown in (46)[23].

Control Transitive with T-Obj fusion in Sliammon

(46a) shows fusion of the Control transitivizer -t with the 1st person singular object -say, which surfaces as [-θey]; (46b) shows fusion of the same transitivizer -t with the 2nd person singular object -sɨ, which surfaces as [-θe].

(46a)	/yaɬ(1)-a-θay-əm	Sue	sʃasuɬ/	*t.say → θay
	call-lv-CTr.1sgObj-pass	Sue	yesterday	
	[yéɬlæθèyɪm	Sue	sʃésoɬ]	

'Sue called me yesterday' (PD 568)

[23]Judging from the pronominal paradigms provided by Gerdts (1989:197) the same restriction holds of Halkomelem; T-Object fusion is restricted to 1/2 person singular objects with the -t- transitivizer.

(46b)	/yaɬ(1)-a-θɨ-əm-uɬ-a	Mona/		*t.sɨ → θɨ
	call-lv-CTr.2sgObj-pass-past-Q	Mona		
	[yéɬlæθèmoɬlá?	Mona]		

'Did Mona call you?' (PD 572)

The 1/2 plural objects do not fuse with the transitivizer. If the presence of the morphological object agreement is due to phonological fusion, then we predict that object agreement will be present only with 1/2 singular objects. 1/2 plural cases in which T-Obj fusion does not occur are predicted to show ordinary subject agreement. This prediction is not borne out in Sliammon as shown by a comparison of (47a-b) and (47c-d).

(47a) shows the absence of fusion between the Control transitivizer -t and the 1st person plural object -uw; (47b) shows that the 1st person plural subject is ill-formed with the passive.

(47a)	/ya-yaɬ(1)-a-t-uw-əm	kʷə	Joe/
	cont-call-lv-CTr-1plObj-pass	det	Joe
	[yéyɛɬlætuwəm	kʷə	Joe]

'We got called by Joe' (PD 569; 654)

(47b) *[yéyɛɬlàt-əm-šɬ] (PD 654)
-pass-1plSu

(47c) shows the absence of fusion between the Control transitivizer -t and the 2nd person plural object -anapɨ, whereas (47d) shows that the presence of 2nd person plural subject agreement is ill-formed with passive.

(47c)	/ya-yaɬ(1)-a-t-anapɨ-əm	kʷə ʔ	Joe/
	cont-call-lv-CTr-2plObj-pass	det	Joe
	[yéyɛɬlætæmàpɛm	kʷaʔ	Joe][24]

'You folks got called by Joe' (PD 570; 655)

(47d) *[yéyɛɬlàt-əm-čəp] (PD 655)
-pass-2plSu

Moreover, since T-Obj fusion does not occur with the other transitivizers (NTr or Caus), we might expect these forms to show subject agreement as well. This would be consistent with a personal passive analysis in which the passive patient has undergone promotion to subject. The Sliammon data show that the passive patient is always marked as a morphological object no matter whether T-Obj fusion has occurred or not as shown by the Causative paradigm in (48).

[24]PD says: [ʔéɬtɪnstàmapɛm...] and not *[ʔéɬtɪnstànapɛm...]. This could be either (i) anticipation of the following labial or (ii) coronal dissimilation. The phonetic status of the 2plObj marker in PD's speech requires further study.

(48) *Underlying representations* *Surface forms*

/ʔiɬtən-stW-may-əm/ [ʔéɬtɪnstə̀mayɪm]
eat-Caus-1sgObj-pass 'they fed me' (PD 150)

/ʔiɬtən-stW-mi-əm/ [ʔéɬtɪnstə̀miʸəm]
eat-Caus-2sgObj-pass 'somebody fed you' (PD 151)

/ʔiɬtən-stW-uw-əm kʷa/ [ʔéɬtɪnstə̀wəm kʷaʔ][25]
eat-Caus-1plObj-pass quot 'they're gonna fed us' (PD 154)

/ʔiɬtən-stW-anapi-əm kʷa/ [ʔéɬtɪnstə̀mapəm kʷáʔ]
eat-Caus-2plObj-pass quot 'they're gonna feed you folks' (PD 156)

/kʷa ʔiɬtən-stW-Ø-əm/ [kʷa ʔéɬtɪnstə̀m]
quot eat-Caus-3Abs-pass 'they fed her' (PD 152)

I conclude that a morpho-phonological explanation of the morpho-syntactic mismatch along the lines of T-Obj fusion makes the wrong predictions for Sliammon.

§3.3 Kroeber's Insight

Kroeber (1991:38) provides valuable insight regarding so-called R-to-O constructions. He suggests that utterances in which the subject of a complement clause appears to be copied onto the matrix clause, or is obligatorily coreferent with some argument of the matrix clause could be examples involving ordinary coreference. He questions the existence of a special syntactic relation (Raising-to-Object or Equi-NP deletion) holding between matrix-clause and subordinate-clause elements (here 2sgObj & 2sgposs subject) in sentences such as (49).

(49) təχʷ-nu-mi č [θ-ƛəčt-am] Sliammon
know-NTr-2sgObj 1sSuCl 2sgPoss-sleep-Desid
'I know (you) that you are sleepy' (Davis 1978b; Kroeber 1991)

Kroeber's discussion therefore calls into question the R-to-O/AC analysis proposed by Davis (1980), at least for 1/2persons. My findings suggest that Kroeber is correct with respect to 1/2persons; these appear to be cases involving ordinary coreference, but that the reference of 3person *pro* is determined by Object Control and Discourse Binding (§4-5).

§4.0 Determining the Nature of the Intermediate NP

In the next section I examine the Sliammon evidence regarding the position of the intermediate 3person nominal [John]$_{NP}$ in so-called "Raising-to-Object" constructions such as (50).

(50) /kʷan-a-t-Ø-uɬč [John] məkʷ-t-Ø-as tə masiq̓ʷ/
see-lv-CTr-3abs-past 1sgSu [John] eat-CTr-3abs-3erg det sea urchin

[kʷə́natə̀ɬč [John]$_{NP}$ mɤ́kʷtʌs tə mʌ́seq̓ʷʰ]
'I watched John when he ate the sea urchin' (PD 118)

[25]The quotative marker is normally /kʷa/. The final glottal which appears in the phonetic forms needs to be accounted for.

As a maximal projection, an NP can occupy either an argument position (A-position) or an A'-position. Throughout the discussion, I will attempt to determine whether or not this intermediate NP occupies a position in the matrix clause, a position in the embedded clause, or an adjoined position between clauses.

In §4.1 I will show that the intermediate NP must be outside of the embedded IP domain. §4.2 will show that the NP precedes the complementizer (C^{o} head), and §4.2.1-4.2.5 will show that the NP cannot be in an operator position: [Spec, CP]. I will conclude based on this evidence that the NP must be outside of the embedded CP domain. The intermediate NP 'John' in (50) is also in a relation with an empty category (ec) within the embedded clause as reflected by the gloss. §4.3-§4.9 compares and contrasts an NP-movement analysis with a Control analysis in order to determine the nature of this [NP ... ec] relation.

§4.1 Word Order in Embedded Clauses

Word order is relevant to the present discussion since it will be important to show that the intermediate position occupied by an overt NP in "Raising-to-Object" constructions is not an alternative word order in monoclausal environments. In particular, an overt NP cannot occur before the predicate in the same clause.

(51) *[NP Predicate]

Having clearly established the word order restrictions for simple clauses in §1.3, I now turn to an examination of word order restrictions in R-to-O constructions.
The overt nominal 'Joe' which is interpreted as the Patient of the matrix predicate and as the Agent/Experiencer of the embedded predicate must occur after the subject clitic /čxʷ/ of the matrix clause and before the embedded predicate as shown in (52a).

(52a) /kʷan-a-t-Ø-uɬ-a čxʷ Joe məkʷ-t-Ø-as masiq̓ʷ/
see-lv-CTr-3abs-past-Q 2sgSuCl Joe eat-CTr-3abs-3erg sea urchin

[kʷə́nɛtə̀ɬæčxʷ Joe mɤ́kʷtʌs mʌ́seq̓ʷʰ]
'Did you see Joe eating sea urchin?' (PD 197)

'Joe' cannot occur after the embedded predicate in (52b). This follows from the generalization that there can only be one overt direct argument NP per clause introduced in §1.4-1.5.

(52b) *[kʷə́nɛtə̀ɬæčxʷ mɤ́kʷtʌs Joe mʌ́seq̓ʷʰ]
did you see eating Joe sea urchin

('Did you see Joe eating sea urchin') (PD 197a)

Changing the relative order of the two overt nominals as in (52c) does not improve the grammaticality of this utterance.

(52c) *[kʷə́nɛtə̀ɬæčxʷ mɤ́kʷtʌs mʌ́seq̓ʷʰ Joe]
did you see eating sea urchin Joe

('Did you see Joe eating sea urchin') (PD 321)

Based on word order restrictions for simple matrix clauses (intransitive, transitive, and passive) in §1.3, we concluded that an overt NP cannot occur in clause-initial position. If this is a general prohibition, then the ill-formedness of (52b-c) confirms that the overt NP which occurs between the matrix and embedded predicates can't be in a pre-predicative position within the embedded clause.

(53) *[see-CTr-3abs-past-Q SuCl [NP eat-CTr-3abs-3erg NP]]

A second argument along the same lines comes from the position of auxiliaries in Sliammon.

§4.1.1 Auxiliaries & [Spec, IP]

The data in (54a-b) establish that 'come eat' is a single [aux verb] complex in Sliammon since the subject morphology cannot be doubled (=54b). If 'come' and 'eat' were independent predicates, then one might expect the 1sg pronominal clitic on 'come' and the 1sg possessive morphology associated with a nominalized clause preceding the predicate 'eat'. The 1sg subject clitic attaches to the first member of the predicate complex—to the auxilary 'come' as in (54a).

(54a)	/qʷəl̓	čən	səm	ʔiɬtən	kʷə	masiq̓ʷ/
VF	come	1sgSu	fut	eat	det	sea urchin
	[qʷʌ́l̓	čən	səm	ʔéɬtɪn	kʷə	mʌ́seq̓ʷ]
	'I'm gonna come over and eat sea urchin'					(PD 230)

(54b) shows that doubling the subject morphology via nominalization is ruled out.

(54b)	*/qʷəl̓	čən	səm	tθ	ʔiɬtən	kʷə	masiq̓ʷ/
	come	1sgSu	fut	1sg poss	eat	det	sea urchin
	*[qʷʌ́l̓	čən	səm	tθ	ʔéɬtɪn	kʷə	mʌ́seq̓ʷ]
	(I'm gonna come over and eat sea urchin)						(PD 392)

Building on the basic word order facts and having established that 'come' is an auxilary which appears in predicate-initial position (as head of IP), (55) provides further evidence that the overt nominal 'Jim' does not occupy a position within the lower clause since it must precede the auxilary.

D-Topic: Joe$_i$

(55a)	/yaɬ(l)-a-t-Ø-as	Jim	qʷəl̓	s	ʔiɬtən	kʷə	masiq̓ʷ/
VF	call-lv-CTr-3abs-3erg	Jim	come	3poss	eat	det	sea urchin
	[yéɬlætʌs	Jim	qʷʌl̓ᵊs		ʔéɬtɪn	kʷ(ə)	mʌ́seq̓ʷ]
	'He$_i$ called Jim to come over and eat (sea urchin) (with him)'						(PD 198)

(55b) shows that 'Jim' cannot occupy a position between the auxilary and the embedded predicate.

(55b)	*/yaɬ(l)-a-t-Ø-as	qʷəl̓	s	Jim	ʔiɬtən	kʷə	masiq̓ʷ/
	call-lv-CTr-3abs-3erg	come	3poss	Jim	eat	det	sea urchin
	*[yéɬlætʌs	qʷʌl̓ᵊs		Jim	ʔéɬtɪn	kʷə	mʌ́seq̓ʷ]
	'He called Jim to come over and eat (sea urchin) (with him)'						(PD 717)

I conclude that 'Jim' must occupy a position external to the embedded IP. This is consistent with predicate-initial ordering which prohibits overt clause-initial NPs.

§4.2 Complementizers & [Spec, CP]

In this section, we consider data from *ga* 'if' clauses which bears on the question of whether the overt NP may occupy [Spec, CP]. The overt NP occurs before the complementizer *ga* in pre-predicative position (=56). I propose that the complementizer *ga* is the head of CP[26]. (56) shows that the overt nominal 'Sahana' occurs before 'ga'.

(56)	/papkʷ-a-t-Ø	tθəm	[Sahana]	ga	məkʷ-t-Ø-as	səm	tə ʔasxʷ/
VF	watch-lv-CTr-3abs	1sg.fut	[Sahana]	if	eat-CTr-3abs-3erg	fut	det seal
	[pápkʷa	tθəm	[Sahana]	ga	mʊ́kʷtasəm	∅	tə ʔasxʷ]
	'I'm gonna watch and see if Sahana'll eat the seal'						(PD 448)

(57a-b) establishes that the particle 'ga' must precede the auxilary 'come'.

(57a)	/papkʷ-a-θi	tθəm	ga	qʷəl̓-axʷ	ʔiɬtən-Ø	kʷə	masiq̓ʷ/[27]
	watch-lv-CTr.2sgObj	1sgposs.fut	if	come-2sgconj	eat-3abs	det	sea urchin
	[pápkʷaθè tθəm		ga	qʷʌ́l̓axʷ	ʔéɬtɪn	kʷə	mʌ́seq̓ʷ]
	'I'm gonna watch you to see if you're gonna come and eat sea urchin'						(PD 593)
(57b)	*[pápkʷaθè tθəm		qʷʌ́l̓axʷ	ga	ʔéɬtɪn	kʷə	mʌ́seq̓ʷ]
	watch-lv-CTr.2sgObj	1sgposs.fut	come-2sgconj	if	eat-3abs	det	sea urchin
	('I'm gonna watch you to see if you're gonna come and eat sea urchin')						(PD 593a)

In (58a) [John] occurs outside of the irrealis particle *ga* and is interpreted as the subject of the embedded predicate.

(58a)	/papkʷ-a-t-Ø	štəm	John	ga	məkʷ-t-Ø-as	tə	masiq̓ʷ/
VF	watch-lv-CTr-3abs	1pl.fut	John	if	eat-CTr-3abs-3erg	det	sea urchin
	[pápkʷəštəm		Jóhn	ga	mʊ́kʷtas	(tə)	mʌ́seq̓ʷʰ]
	'we're gonna watch and see if John'll eat sea urchin'						(PD 108)
	(=we're gonna watch John$_i$ and see if he$_i$'ll eat sea urchin)						(PD 746)

(58b) shows that the irrealis particle *ga* 'if' cannot precede NP 'John'.

(58b)	*[pápkʷəštəm	ga	Jóhn	mʊ́kʷtʌs	(tə)	mʌ́seq̓ʷʰ]
	we're gonna watch	if	John	eat	det	sea urchin
	('we're gonna watch and see if John'll eat sea urchin')					(PD 391)

[26]Although I do not provide any independent argumentation that *ga* is a complementizer, this proposal seems plausible on the basis of the semantics of *ga*.

[27]Kroeber (1991:72) states that conditional clauses introduced by the irrealis particle 'ga' take conjunctive (subject) person marking. This example also provides evidence that the conjunctive markers in MComox are mobile since they can be attached to the auxilary element in the same way that main clause 1/2 subject clitics can be. Kroeber (1991:73) notes that the conjunctive subject suffixes in Squamish also show some variation in position.

As we have seen in this section, the overt nominal always precedes *ga*. Given these facts the overt nominal could conceivably occupy [Spec, CP], the first-available NP position preceding the complementizer 'ga' as illustrated schematically in (59).

(59) [pápkʷəštəm [John$_1$ [ga [mɤ́kʷtas t_1 (tə) mʌ́seq̓ʷ]]]
IP CP C' IP

'we're gonna watch and see if John'll eat sea urchin' (PD 108)

§4.2.1 Operator-variable chain

An analysis of these facts such as the one sketched in (59) would commit us to saying that the NP in question occupies an A'/operator position (=[Spec, CP]) which lies between the matrix clause and the embedded clause. An NP which has undergone operator-movement would form a chain with its trace (variable) in the complement clause and A'-bind it. A trace of operator-movement is subject to Condition C of the Binding theory: it cannnot be A-bound by a potential antecedent in any domain. The operator-variable chain relation is represented schematically in (60)[28].

(60) 'I watched John when he ate the sea urchin' (PD 118)

[k̓ʷə́natə̀ɬč CP[[John$_1$] C'[IP[mɤ́kʷtʌs t_1 tə mʌ́seq̓ʷ]]]]
Operator-variable chain

Head(=operator) Tail (=variable)

Surface word order requires us to consider such an alternative. Evidence from Relative Clause (RC) formation §4.2.2, Clefting (C) §4.2.3 and Wh-Questions (Wh-Q) §4.2.4 establishes a morphological diagnostic for the Operator-variable relation in Sliammon. The morphological diagnostics in (61) are based on the following data from RC, C, and Wh-Q.

Subject/Object Asymmetry—Morphological Diagnostic for Operator Movement

(61a) When an NP is extracted from Subject position via operator movement (or is in a relation with a null operator-variable chain), the 3 person subject morphology on the embedded predicate is *obligatorily absent.*

(61b) When an NP is extracted from Object position via operator movement (or is in a relation with a null operator-variable chain), the 3 person subject morphology is *obligatorily present.*

In §4.2.5 I will compare RC formation, Clefting, and Wh-questions with R-to-O constructions and conclude that the intermediate nominal in question is not in an A'/operator-position ([Spec, CP]) since it does not show the morphological diagnostics of true operator movement as summarized in (61a). Consider first the data from Relative Clauses.

§4.2.2 Relative Clauses (data from Davis 1974)

Subject Extraction

Davis (1974) observes that when the head of the RC bears the agent relation to the embedded predicate, the predicate is not marked with the 3 ergative as shown in (62a).

[28] I do not distinguish between a base-generated operator-variable chain vs. an operator-variable chain formed via movement for the purposes of this discussion.

(62a) ...tə tomeš kʷən-(n)əxʷ-ø ____ čæ·č...
det man look at-NTr-3Abs (no 3Erg) George

'...the man that saw George...' (Davis 1974)

Object Extraction

In contrast, when the head of the RC bears the patient relation to the embedded predicate, the predicate is marked with the third ergative marker -əs (I posit /-as/) as shown in (62b).

(62b) ...tə tomeš kʷən-(n)əxʷ-ø-əs čæ·č...
det man look at-NTr-3Abs-3Erg George

'...the man that George saw...' (Davis 1974)

§4.2.3 Clefting

Cleft constructions show that same presence vs. absence of pronominal morphology as the Relative Clause constructions discussed above. This parallelism is noted by previous researchers including Davis (1974) and Kroeber (1991), and follows directly from the fact that RC formation and Clefting both involve operator-variable chains.

Subject Extraction

When the head of the cleft (cleftee) bears the subject relation to the embedded predicate, the predicate is not marked with subject morphology as in (63a).

(63a) /hɨ(ɬ) ʔə səm tə saɬtxʷ čaχ-a-t-ø/
VF be it ptc fut det woman cook-lv-CTr-3abs

[hé ʔ səm (tə) sáɬtxʷ čʌ́χʌtʰ____]
(no 3erg)

'the woman is gonna cook it' (PD 165)
(=it's the woman that's gonna cook it)

(63b) shows that the gap in 3person agreement is obligatory.

(63b) *[hé ʔ səm (tə) sáɬtxʷ čʌ́χʌtʌs]
be it fut det woman cook it

('the woman is gonna cook it') (PD 385)

(63c) shows that the cleftee 'the woman' must occur in pre-predicative position.

(63c) *[hé ʔ səm čʌ́χʌtʰ (tə) saɬtxʷ]
be it fut cook it det woman

('the woman is gonna cook it') (PD 386)

Object Extraction

Clefting of an object requires subject (conj) agreement /-at/ as shown in (64a).

(64a)	/hɪ(ɬ)	ʔə	səm	s	ǰanxʷ	məkʷ-t-Ø-at	sɬθuǩʷ/
VF	be it	ptc	fut	nom	fish	eat-CTr-3abs-1plconj	today
	[hɛ́ʔ		səm	šǰɛ́nxʷ		mʊ́kʷtat	sɬθòǩʷ]

'We're going to eat this fish today' (=it's the fish we'll eat today) (PD 91)

(64b) shows that the 1pl subject (conj) morphology is obligatory given this interpretation[29].

(64b)	*/hɪ(ɬ)	ʔə	səm	s	ǰanxʷ	məkʷ-t-Ø	sɬθuǩʷ/
	be it	ptc	fut	nom	fish	eat-CTr-3abs	today
	*[hɛ́ʔ		səm	šǰɛ́nxʷ		mʊ́kʷt ___ (no 1pl conj)	sɬθòǩʷ]

*We're going to eat this fish today (=it's the fish we'll eat today) (PD 387)
!*'it's the fish that will eat it today' (sounds funny!) (PD 387a)

Now consider the data from Wh-question formation which shows the same obligatory presence and absence of inflectional morphology.

§4.2.4 Wh-Questions

Subject Extraction

(65a) shows that when the subject is questioned, the 3erg morphology is missing.

(65a)	/gat	məkʷ-t-Ø	kʷu	šə	masɪq̓ʷ/
	who	eat-CTr-3abs	ptc	det	sea urchin
	[gʎtʰ	mʊ́kʷt	kʷu	šə	mʎseq̓ʷ]

'Who ate the sea urchin?' (PD 682)

The ungrammaticality of (65b) shows that the absence of the 3erg morphology is obligatory.

(65b)	*/gat	məkʷ-t-Ø-as	kʷu	šə	masɪq̓ʷ/
	who	eat-CTr-3abs-3erg	ptc	det	sea urchin
	*[gʎtʰ	mʊ́kʷtʌs	kʷu	šə	mʎseq̓ʷ]

('Who ate the sea urchin?') (PD 721)

[29]It should only be able to mean 'it's the fish that will eat it today' (=subject extraction). This reading was not possible for my speaker either—I suspect that this is excluded due to semantic/selectional restrictions: 'fish' is an inappropriate subject for this predicate.

Object Extraction

In contrast, the 3ergative agreement is obligartorily present with object extraction as can be seen from a comparison between (66a-b).

(66a)	/tam	kʲʷa	ʔə	məkʷ-t-Ø-as-uɬ	tə	təwməš/
	what	quot	ptc	eat-CTr-3abs-3erg-past	det	man
	[tɐ́m	kʲʷaʔ		mʊ̀kʷtʌsoɬ	tə	tʊ́mɪš]

'What did the man eat?' (PD 684)

(66b)	*/tam	kʲʷa	ʔə	məkʷ-t-Ø-uɬ	tə	təwməš/
	what	quot	ptc	eat-CTr-3abs-past	det	man
	*[tɐ́m	kʲʷaʔ		mʊ̀kʷtoɬ	tə	tʊ́mɪš]

('What did the man eat?') (PD 722)

PD: laughter! No gloss given.

If we compare the structure of Relative Clauses, Cleft constructions and Wh-Questions in Sliammon with the putative Raising-to-Object constructions we notice different surface effects. Since RC/Clefts/Wh-Q are typically analyzed as operator movement to [Spec, CP][30], then we can provide a way of testing whether or not the overt intermediate NP in R-to-O constructions is construed with this position.

§4.2.5 Comparison of A'-movement and Raising-to-Object

(67a) shows an active "R-to-O" sentence in which the overt nominal [Joe] appears in this pre-predicative position. [Joe] bears the agent relation to the embedded clause, and 3ergative morphology appears on the embedded predicate.

(67a)	/kʲʷan-a-t-Ø-uɬ	č	Joe	qə-qəy-t-Ø-as	Jim/
	see-lv-CTr-3abs-past	1sgSuCl	Joe	cont-beat-CTr-3abs-3erg	Jim
	[kʲʷɛ́natòɬč		Joe	qéqeytʌs	Jim]

'I watched Joe beat Jim up' (PD 193)

(67b) shows that omission of the subject morphology is ungrammatical.

(67b)	*/kʲʷan-a-t-Ø-uɬ	č	Joe	qə-qəy-t-Ø	Jim/
	see-lv-CTr-3abs-past	1sgSuCl	Joe	cont-beat-CTr-3abs	Jim
	*[kʲʷɛ́natòɬč		Joe	qéqeyt ___ (no 3erg)	Jim]

('I watched Joe beat Jim up') (PD 388)

[30]Since Sliammon, like other Salish languages does not have overt relative pronouns I assume that relative clause formation involves null operator movement from argument position to Spec CP. I do not propose to give a full treatment of any of these construction here, as this is clearly beyond the scope of this paper. Suffice it to say that the surface morphology of the constructions is different. I refer the reader to Roberts (1994) for an explicit treatment of relative clauses in St'át'imcets as well as to Kroeber (1991) for a survey of these constructions in Salish in general.

(68a-68b) show parallel examples.

(68a)	[kʷan-a-t-ø-uɬ	št	John	məkʷ-t-ø-as	tə	masɪq̓ʷ/
VF	see-lv-CTr-3abs-past	1plSuCl	John	eat-CTr-3abs-3erg	det	sea urchin
	[kʷə́nætò+št		John	mʊ́kʷtas	tə	mʌ́seq̓ʷʰ]
	'We caught sight of John eating sea urchin'				(PD 116)	
(68b)	*/kʷan-a-t-ø-uɬ	št	John	məkʷ-t-ø	tə	masɪq̓ʷ/
	see-lv-CTr-3abs-past	1plSuCl	John	eat-CTr-3abs	det	sea urchin
	*[kʷə́nætò+št		John	mʊ́kʷt ___ (no 3erg)	tə	mʌ́seq̓ʷʰ]
	('We caught sight of John eating sea urchin')				(PD 389)	

Obligatory retention of the third person morphology on the embedded predicate in these R-to-O constructions shows that the position in which the overt NP appears can not be construed as A'/operator movement associated with either Relative Clause Formation §4.2.2, Clefting §4.2.3, or Wh-Questions §4.2.4. If it were the same type of syntactic relation then we would expect the subject morphology on the lower predicate to be missing. This shows that whatever kind of structure we attribute to R-to-O constructions in the language, they do not have the same morpho-syntactic properties as RCs, Clefts, or Wh-questions.

I conclude that RC/Clefts/Wh-Q are syntactic structures involving operator movement whereas R-to-O is not. This rules out movement to [Spec, CP] as a plausible analysis of R-to-O structures. I conclude that the overt NP is outside of [Spec, CP] as shown in (69).

(69)	[pə́pkʷəštəm	Jóhn	$_{CP}$[$_{C'}$[ga	$_{IP}$[mʊ́kʷtas	mʌ́seq̓ʷʰ]]$_{CP}$]$_{IP}$	
	we will watch	John	if	eat-CTr-3abs-3erg	sea urchin	

(=we're gonna watch and see John if pro will eat sea urchin)

Since the R-to-O constructions clearly differ from proto-typical operator movement cases, I now compare and contrast two different analyses which both claim that the NP in question occupies a position within the matrix clause. The operator movement analysis will not be considered again; although, as the reader can verify there will be additional evidence presented in the next sections against this proposal.

§4.3 NP-movement vs Control

The two analyses under consideration are (i) NP-movement §4.3.1 and (ii) Control §4.3.2

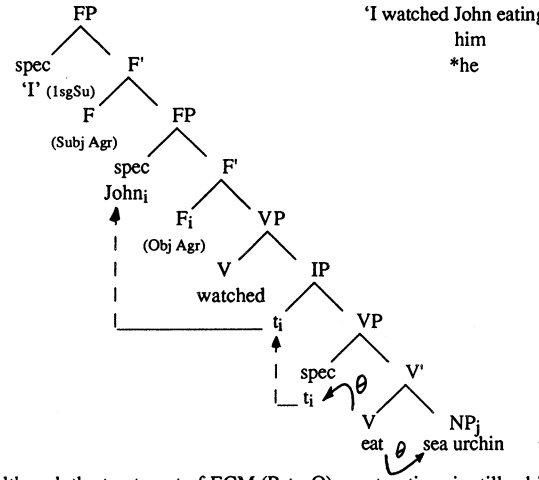
§4.3.1 Hypothesis 1: NP-movement (A-chain)

Within classical Government and Binding Theory (GB) of Chomsky (1981 et seq.), NP-movement to a thematic object position (Raising-to-Object) is excluded on principled grounds. Movement of an NP to the complement position which is governed by a verbal head is a violation of the Theta Criterion, since a single noun phrase (A-chain) would be theta-marked twice, once in its d-structure position (tail of the chain) and once in its landing site (head of the chain). An R-to-O analysis is therefore ruled out in a principled fashion within the framework which I am adopting in this paper. This excludes the R-to-O analysis proposed by Davis (1980).

With the introduction of the distinction between lexical and functional projections (Pollock 1989, Chomsky 1991), it is assumed that theta-role assignment occurs within VP (the VP-internal subject hypothesis) and Case-marking occurs in functional projections via spec-head agreement. These functional projections are the array of inflectional

heads (Agr, Tense, Aspect etc.,) associated with VP. This effectively separates Case Assignment from Theta-role Assignment. The separation of Case assignment and Theta assignment, therefore reintroduces the possibility of "Raising-to-Object" since an overt NP could move to a functional projection within a higher clause in order to get Case without landing in a theta-marked position. As Chomsky (1993:8) notes Exceptional Case Marking (ECM) by V could be interpreted as raising of a subject NP from [Spec, VP] to [Spec, AgrOP] (with Verb movement in order to derive Sliammon predicate-initial structures). In this way the moved NP just receives object Case. This is shown in the partial structure given in (70).

(70) **ECM: NP-movement to [Spec, AgrOP]**



Although the treatment of ECM (R-to-O) constructions is still subject to debate, I consider the possibility of NP-movement (to SpecAgrO) here since it provides an updated version of Davis' (1980) analysis. As the reader will recall, R-to-O provides the sole evidence that the patient of a passive predicate functions as a syntactic subject. In the remainder of this section, I will compare and contrast the NP-mvt hypothesis explicitly with an NP-pro Control account developed in §4.3.2.

A sketch of the NP-Movement Analysis:

NP-movement involves the relationship between an NP (antecedent) and its trace (anaphor). For our purposes, I assume that this A-chain could be either base-generated or derived as a result of overt movement. In the case of NP-movement, the NP (antecedent) which functions as the head of the chain appears in the specifier of the functional projection which assigns Object Case. The NP forms an A-chain with its trace occupying the subject position of the non-matrix clause as shown in (71).

(71) 'I watched John when he ate the sea urchin' (PD 118)

[kʷə́natò+č$_{SpecFP}$[John$_i$] $_{CP}$[$_{IP}$[mʊ́kʷtʌs t$_i$ tə mʌ́seq̓ʷ]]]

A-chain

Head (=antecedent)	Tail (=anaphor)
-Theta	+Theta
+Case	-Case

The trace of NP-movement is subject to Condition A of the Binding Theory; like overt anaphors such as reflexives and reciprocals, NP-trace must be bound within a finite clause. The tail of the chain is theta-marked but not Case-marked, whereas the head of the chain is a Case-marked position but crucially not a theta-marked position.

§4.3.2 Hypothesis 2: NP-pro Control Analysis

A control analysis of these facts does not involve an NP-trace relation like that of Hypothesis 1. This analysis claims that the intermediate NP in question is base-generated in the direct object position of the matrix clause. In particular, it is generated in a theta-marked position. This NP provides an appropriate antecedent for a null pronominal which occupies the subject position of an embedded clause. The intermediate overt NP and pro are both assigned independent theta-roles. I indicate the control relation by the super-scripting to keep it distinct from chain formation involved in NP-movement. In (72) the NP 'John^{i}' controls the embedded subject pro^{i}.

(72) 'I watched John when he ate the sea urchin' (PD 118)

[kʷə́natə̀ɬčVP[VP[[John^{i}]] CP[IP[mʊ́kʷtʌs **pro**^{i} tə mʌ́sɛqʷ]]]

+Theta role +Case NP Antecedent — +Theta role +Case [+pronominal]

Since *pro* has properties of overt pronouns (i.e. it bears the feature [+pronominal]), it will be subject to Condition B of the Binding Theory. Condition B states that a pronoun must be free (not bound) within a finite clause. It does not say anything regarding the binding possibilities from outside that local domain. Examples such as (72) show that the *pro* in subject position of the non-matrix clause is construed with the NP in object position of the matrix clause.

§5 discusses the nature of the relation between the object NP in the matrix clause and the null pronominal in subject of the embedded clause in greater detail. I will address the ways in which this relation is similar to and different from Obligatory Control. I also show that this NP-pro relation is not a straight forward extension of Discourse Binding to intra-sentential contexts. I postpone a discussion of these issues until §5.

We now focus on the arguments which show that the intermediate NP occupies a true thematic object position (NP sister to V), and that the relation between this NP and the empty category in subject position of the embedded clause cannot be an NP-trace relation. This enables us to conclude that the NP-movement analysis fails to account for the observed data. The NP-pro relation accomodates the observed syntactic properties, and ultimately enables us to resolve the apparent morpho-syntactic mismatch discussed in §3.1.1-3.1.2.

§4.4 Semantic Argument

The purpose of this section is to provide semantic evidence which shows that the intermediate NP in question is the thematic object of the matrix predicate.

§4.4.1 Absolutive Marking and Semantic Ambiguity

The English gloss of the following example has two possible interpretations. It is difficult to know whether (73) means (73a) in which I'm observing an event, specifically the situation in which Joe is beating Jim up, or whether (73) means (73b) in which I'm observing someone.

(73)	/papkʷ-a-t-Ø-uɬ	č	Joe	qə-qəy-t-Ø-as	Jim/
	watch-lv-CTr-3abs-past	1sgSuCl	Joe	cont-beat-CTr-3abs-3erg	Jim
	[pə́pkʷatə̀ɬč		Joe	qéqeytəs	Jim]

'I watched Joe beat up Jim' (PD 14)

(73a) 'I'm watching [Joe beating Jim up]' observing event Complement Clause
(73b) 'I'm watching Joe, Joe beating Jim up' observing someone Object Control: Prolepsis

Note that (73a) corresponds to the situation in which 'Joe' occupies the subject position within the embedded clause and undergoes raising to get Case whereas in (73b) 'Joe' functions as the true semantic object of the matrix predicate.

The following simple clauses were elicited on different occasions to show that both predicates independently Case-mark and theta-mark a direct object NP.

(74)	/papkʷ-a-t-Ø-uɬ	č	Joe/
	watch-lv-CTr-3abs-past	1sgSuCl	Joe
	[pə́pkʷatə̀ɬč		Joe]

'I was watching Joe' (PD 461)
(=sitting/standing there looking at him)

(74a)	/kʷa qə-qəy-t-Ø-as		Jim/
	quot cont-beat-CTr-3abs-3erg		Jim
	[kʷa qéqeytʌs		Jim]

'He beat Jim up' (PD 172)

Note that (74a) has a definite pronoun-like interpretation 'He beat Jim up' consistent with a null subject analysis as presented in §4.3.2.

The next section presents evidence which suggests that there are two independent theta-roles assigned, one to the NP in direct object position and one to the empty category in subject of the embedded clause. This creates a potential problem for the NP-mvt analysis since uniform A-chains involving an NP and its trace are theta-marked only once at the foot of the chain. The Control analysis is compatible with this position since the NP and *pro* are each assigned an independent theta-role and do not enter into an A-chain relation like that created via NP-mvt.

§4.4.2 Semantic Contrast

Consider the following discourse situations, which further support the view that the overt NP occupies the direct object position of the matrix predicate and bears the internal theta-role of the matrix predicate 'see'. Here the NP-trace analysis and the Control analysis make different predictions. The NP-trace analysis maintains that the NP appears in a Case position within the matrix clause—it moves to get object Case but it is not associated with the thematic object position. The Control analysis on the other hand claims that the direct object of the matrix clause is assigned a theta-role, and that *pro* in the subject position of the embedded clause is assigned an independent theta-role. The semantic interpretation of utterances in this section provide strong evidence that the matrix NP occupies a theta-marked position, and therefore supports Hypothesis 2.

Davis (1980) claims that Ascension Copy is an optional process in which the 1/2 person object morphology of the lower predicate is copied onto the matrix predicate—analagous to R-to-O. The following discourse situations have been created in order to test this claim. Discourse Contexts 1/2 have been constructed in such a way as to favour a 3rd person matrix object reading. A second person matrix object is ruled out. This is reflected by the object agreement which occurs on the matrix predicate and is illustrated schematically in (75a). Discourse Contexts 3/4 force the opposite interpretation as in (75b).

(75) **Discourse Context 1/2**

[see-trans NP$_{subj}$ NP$_{obj}$ [V$_{pass}$ pro you]

see-trans-Ø (3abs) 3rd person Object

*see-trans-θi (2sgObj) *2nd person Object

(75b) **Discourse Context 3/4**

[see-trans NP$_{subj}$ NP$_{obj}$ [V$_{pass}$ pro you]

see-trans-θi (2sgObj) 2nd person Object

*see-trans-Ø (3abs) *3rd person Object

I will show that the semantic constrasts illustrated in this section cannot be accounted for by a copying/raising analysis in which the NP/pro moves to a non-theta position.

Discourse Context 1:

(76) We were all out digging clams. You disappeared. No one could find you. I've seen when they called you. (PD 479)

In the context of the scenario in (76), (76a) was judged as fully grammatical.

D-topic: the search party$_i$

(76a) /ǩʷan-a-t-Ø-uɬ č yaɬ(l)-a-θi-it-uɬ/[31]
see-lv-CTr-3abs-past 1sgSuCl call-lv-CTr.2sgObj-pass-past

[ǩʷə́nætò́ɬč yɛ́ɬlæθɛ̀toɬ][32]

'I've seen them$_i$ when they$_i$ called you' (PD 480)
(='I've seen them when you got called by them')

Notice that the gloss given by the speaker in this case suggests that there is a null *pro* 'them' in complement position of the main predicate. The object *pro* gets its reference from the discourse topic 'the search party'. Discourse Context 1 is compatible with a sentence in which the speaker sees a member of the search party.

Furthermore, (76b) is semantically incompatible with the discourse context in (76). As my Sliammon consultant explained, (76b) means: " 'I've seen you'. How could I have seen you... if you were no where in sight!"

[31]In all of these examples the embedded predicate appears in the passive voice. It would be preferable to have embedded active examples since we are attempting to evaluate R-to-O independently from its interaction with passive. Unfortunately several attempts to re-elicit these examples with embedded actives have failed. Since this section focuses on the status of the matrix object, this data still provides evidence that the matrix object is associated with the thematic object position. Interpretative effects such as these could not follow from Case-driven NP-movement.

Another morphological analysis of the non-matrix predicate is also possible. The 3rd person plural possessor /-it/ is identical to the embedded passive /-it/. These non-matrix clauses could be nominalized constructions which would be better glossed as 'I've seen them, their calling you'. This is a topic for future research.

[32]PD noted that the predicate for 'holler' would be better in this context but that 'call' was OK too. I have not changed this example in order to keep the examples parallel.

(76b) /ǩʷan-a-θi-h-uɬ č yaɬ(l)-a-θi-it-uɬ/
see-lv-CTr.2sgObj-ep-past 1sgSu call-lv-CTr.2sgObj-pass-past

[ǩʷə́næθehoɬč yɛ́ɬlæθɛ̀toɬ]

'I was watching you when they called you' (PD 482)
(='I was watching you when you got called by them')

The contrast between (76a-b) confirms that an independent theta-role is assigned to the direct object position of the matrix predicate. The next discourse situation shows the same contrast.

Discourse Context 2:

(77) We're all out picking berries. You've disappeared. No one knows where you are. I've seen when they searched for you. (PD 449)

In the context of (77), (77a) is fully grammatical and has the interpretation in which the matrix object 'them' and embedded subject 'they' are coreferent.

(77a) /ǩʷan-a-t-Ø-uɬ č s ɬθaẏ-a-θi-it-uɬ/
see-lv-CTr-3abs-past 1sgSuCl nom search-lv-CTr.2sgObj-pass-past

[ǩʷə́nætò́ɬč sɬθéy?əθɛ̀toɬ]

'I watched when they searched for you' (PD 410,450)
'I watched them^i when they^i searched for you' (PD 602)
(='I watched them when you got searched for by them')

(77b) is ruled out given discourse context (77) since (77b) clearly means 'I watched you ...' which is semantically incompatible with the discourse situation established above. It is the contrast between the semantic compatibility of (77a-b) which establishes that the matrix object occupies a theta position.

(77b) /ǩʷan-a-θi-h-uɬ č ɬθaẏ-a-θi-it-uɬ/
see-lv-CTr.2sgObj-ep-past 1sgSuCl search-lv-CTr.2sgObj-pass-past

[ǩʷə́næθɛ̀hoɬč ɬθéy?əθɛ̀toɬ]

'I watched you when they searched for you' (PD 451)
(='I watched you when you got searched for by them')

Mrs. Dominic: "No, you've said that 'you've seen me'—this can't be true here."

I now contrast discourse situations 1/2 with the following discourse situations in which the opposite interpretation obtains for the matrix object pronominal as outlined in (75b) above. These are contexts in which the 2nd person (hearer) is seen by the speaker.

Discourse Context 3:

(78) A group of us are in the woods. You and I decide to hide on the rest of them. I can see you in your hidding spot from where I am hidden. The others are searching for us. (PD 516)

(78a) is fully acceptable in discourse context (78) whereas (78b) is not possible. (78a) means that 'I watched you ...' and crucially not 'I watched them ...' or 'I watched it ...' as is shown by the overt matrix object agreement.

(78a) /ǩʷan-a-θi-h-uɬ č ṯθaẏ-a-θi-ɬt-uɬ/
see-lv-CTr.2sgObj-ep-past 1sgSuCl search-lv-CTr.2sgObj-pass-past

[ǩʷə́næθehoɬč ṯθéy?əθètoɬ]

'I watched you when they searched for you' (PD 517)
(='I watched you when you got searched for by them')
*I watched them when they searched for you' (PD 517a)

Although (78b) is fully grammatical, it wouldn't be used in this context. The focus of the speaker is on the second person (addressee) 'you' not on the 'search party'.

(78b) /ǩʷan-at-Ø-uɬ č s ṯθaẏ-a-θi-ɬt-uɬ/
see-CTr-3abs-past 1sgSuCl nom search-lv-CTr.2sgObj-pass-past

[ǩʷə́nætò ɬč sṯθéy?əθètoɬ]

'I watched when they searched for you' (PD 518)
'I watched them[i] when they[i] searched for you' (PD 602)
(='I watched them when you got searched for by them')
*'I watched you when they searched for you' (PD 602a)

Subsequent elicitation of this example (=PD 602) shows that there is a null *pro* in both object position of matrix clause and the subject of the embedded clause. The matrix object *pro* gets its reference from the discourse mapping of d-topic onto *pro* which is consistent with the approach developed by Roberts (1994) and H.Davis (1994). I will propose that the embedded subject *pro* is controlled by the matrix object. This interaction between discourse mapping and Control will be discussed in §5.

Discourse Context 4 provides an additional example of the pattern established for Discourse 3.

Discourse Context 4:

(79) You and I were attending your graduation. We were both there. I was very proud of you. I was watching you. (PD 492)

(79a) is grammatical in the context of (79) whereas (79b) is ruled out.

(79a) /ǩʷan-a-θi-h-uɬ č ya ɬ(l)-a-θi-ɬt-uɬ/
see-lv-CTr.2sgObj-ep-past 1sgSuCl call-lv-CTr.2sgObj-pass-past

[ǩʷə́næθè ho ɬč yé ɬlæθètoɬ]
'I was watching you when they called you' (PD 414, 493)
(='I was watching you when you got called by them')
*I was watching them[i] when they[i] called you' (PD 603)

(79b) /ǩʷan-at-Ø-uɬ č ya ɬ(l)-a-θi-ɬt-uɬ/
see-CTr-3abs-past 1sgSuCl call-lv-CTr.2sgObj-pass-past
[ǩʷə́nætò ɬč yé ɬlæθètoɬ]
'I've seen when they called you' (PD 495)
(='I've seen them when you got called by them')
*'I was watching you when they called you' (PD 495a)

Again the speaker sees the 2nd person (hearer) and not someone else.

§4.4.3 Assessment of Analyses

Hypothesis 1: NP-mvt (A-chain)

An NP-mvt analysis encounters serious difficulties explaining the semantic contrasts shown in §4.4 since the moved NP and it's trace(s) under such an analysis form a single chain. An A-chain is associated with a single theta-position at the base of the chain. The head of the A-chain is a Case position and crucially not a theta-position. If it were a theta-position this would violate the Theta Criterion.

Within an NP-mvt analysis we would fail to predict the different interpretations available to the matrix direct object in the discourse contexts discussed above. This provides strong evidence that the relationship between the matrix object and the subject of the embedded predicate is not an NP-trace relation.

(78a) and (79a) both show an embedded passive with a so-called R-to-O construction in which the second person pronominal morphology appears in both the matrix clause and the embedded clause.

Under a R-to-0 analysis (cf. Davis 1980), the appearance of object morphology on the matrix predicate was argued to show that the patient of a passive predicate had undergone Raising-to-Subject of the embedded clause with subsequent Raising-to-Object position (Davis'Ascension Copy). This body of data provides a compelling argument that these constructions do not involve raising at all.

This semantic paradigm also provides evidence that the empty category could not be a wh-trace (variable). The empty category in the embedded clause could not be the trace of wh-movement since it would be bound by an NP in an A-position. This would constitute a Condition C violation. If the NP were in an A'-position, then we would have trouble explaining the above interpretative effects. This data provides further evidence that the Wh-mvt analysis, rejected for independent reasons in §4.2, makes the wrong predictions given the Sliammon data in §4.4. The given data supports the fact that the NP in the matrix clause appears in a theta-position.

Hypothesis 2: Control Analysis

The examples in this section provide an argument for Hypothesis 2 in which the NP is base-generated in the thematic object position of the matrix predicate. This direct object provides an appropriate antecedent for the null subject *pro* in the embedded clause. It is the normal interpretation of pronominals which predicts semantic pairs of this kind. Further support for this position comes from the interpretation of examples like (80).

Discourse Context: John[i] is eating sea urchin.

(80) /papkʷ-a-t-Ø-uɬ č məkʷ-t-Ø-as šə masɬq̓ʷ/
VF watch-lv-CTr-3abs-past 1sgSuCl eat-CTr-3abs-3erg det sea urchin

[pə́pkʷatò ɬčʰ mʊ́kʷtas šə mʌ́sɛq̓ʷʰ]

'I watched him[i] when he[i] ate sea urchin' (PD 119)

(80) shows that the discourse topic 'John' can be mapped onto the matrix object *pro* which in turn controls the null subject *pro* within the embedded clause. The interaction between discourse binding and Control will be explored more fully in §5.

§4.5 One-Nominal Interpretation & Single Nominal Constraint

The argument developed in this section is a conceptual argument against overt NP-movement. If movement occurs in (81-82) then we end up with D-structures which do not respect either the One Nominal Interpretation Law or the Single Nominal Constraint which were established independently in §1.4 and §1.5.

§4.5.1 One Nominal Interpretation

Base-generation of the single overt NP 'Joe' within in the embedded transitive clause would be a violation of the One Nominal Constraint since this NP is clearly interpreted as the subject of the embedded predicate. The NP would be forced to move out in order to conform to the ON constraint.

(81) /papkʷ-a-t-Ø-uɬ č Joe qə-qəy-t-Ø-as/
watch-lv-CTr-3abs-past 1sgSuCl Joe cont-beat-CTr-3abs-3erg

[pápkʷatὸɬč Joe qéqeytʌs]
'I was watching Joe beating him up' (PD227)

If the overt NP were base-generated within the matrix clause as the thematic object, then the ON constraint would be observed.

§4.5.2 The Single Nominal Constraint

The Single Nominal Constraint reflects the fact that only a single overt NP can be licensed in an active transitive clause as argued in §1.5. (82a) obeys this constraint given a Control analysis since the overt NP 'Joe' would occupy a position within the matrix clause.

(82a) /kʷ'an-a-t-Ø-uɬ č Joe qə-qəy-t-Ø-as Jim/
see-lv-CTr-3abs-past 1sgSuCl Joe cont-beat-CTr-3abs-3erg Jim

[kʷ'ánatὸɬč Joe qéqeytʌs Jim]
'I watched Joe beat Jim up' (PD 193)

If this sentence satisfies the Single Nominal Constraint, then it must be the case that the subject clitic does not count as an overt NP. Recall that a distinction between the behaviour of 1/2 persons versus 3 persons was introduced in §1.2. This split will also play a role in subsequent sections.

An NP-mvt analysis would posit underlying D-Str representations which violate this constraint. (82b) is ungrammatical because the subject NP failed to move prior to S-Structure.

(82b) *[kʷ'ánatὸɬč qéqeytʌs Joe Jim]
I watched beat up Joe Jim

('I watched Joe beat Jim up') (PD 195)

A Control analysis would not encounter conceptual problems of this sort since both D-Str and S-Str representations would respect the One Nominal Interpretation Law and the Single Nominal Constraint.

The remainder of this section shows that the overt nominal in these so-called "R-to-O" constructions behaves like a canonical object. Evidence is presented from reflexives and reciprocals §4.6, passivization §4.7, and wh-extraction and clefting in §4.8.

§4.6 Reflexives and Reciprocals

The following reflexive and reciprocal data shows that the intermediate "object" is able to enter into an anaphoric relation with the matrix subject. Massam (1985:171) notes that reflexive relations between NPs which are indicated by the presence of overt morphology on the verb, are generally excluded unless both the antecedent and the anaphor are arguments of that verb. This provides additional evidence that the intermediate NP in "R-to-O" constructions occupies the thematic object position within the matrix clause.

§4.6.1 Reflexives

The following Sliammon data shows that an anaphoric relation is possible between the matrix subject and object as in (83).

(83) /kʷ'an-a-θut Joe ʔiɬtən-s kʷə masiq̓ʷ/
see-lv-CTr.reflex Joe eat-3poss det sea urchin

[kʷ'ánɛθot Joe ʔéɬtɪns kʷə mʌ́seq̓ʷ]
'Joe$_i$ is watching himself$_i$ while he$_i$'s eating sea urchin' (PD 718)

(83) requires the embedded predicate to be nominalized. The subject of the nominalized clause appears in the possessive Case. Nonetheless, the two arguments of the matrix predicate are able to enter into an antecedent/anaphor relation. The *pro* within the embedded clause is controlled by 'Joe'. (84a-b) provide additional examples with 1person sg/pl.

(84a) /kʷ'an-a-θut-uɬ č tθ xʷat-ʔəm-(ʔ)uɬ/
see-lv-CTr.reflex-past 1sgSuCl 1sgposs fall-intr-past

[kʷ'ánaθὸtʊɬč tθ xʷáʔta·moɬ]
'I've seen myself when I was falling' (PD 712)
(PD: "like in a dream")

(84b) /tɪy-mut št kʷ'an-a-θut šə ms ʔiɬtən-ʔuɬ šə masiq̓ʷ/
big-very 1plSuCl see-lv-CTr.reflex det 1plposs eat-past det sea urchin

[tʃymʊšt kʷ'ánɛθὸt šəms ʔéɬta·noɬ šə mʌ́seq̓ʷ]
'We really watched ourselves when we ate sea urchin' (PD 707)

§4.6.2 Reciprocals

(85a-b) shows that an anaphoric relation holds between the matrix subject and object. In (85a) the 3person subject is the conjoined plural: [Joe and Jim].

(85a) /papkʷ=us-tawɬ Joe hiʔga Jim ʔi-ʔiɬtən tə masiq̓ʷ/[33]
watch=LS'face'-recip Joe and Jim impf-eat det sea urchin
[pápkʷustὰwɬ Joe hɛʔga Jim ʔéʔɛɬtɪn tə mʌ́seq̓ʷ]

'Joe and Jim watched each other while they were eating sea urchin' (PD 632)

Again (85b) with the 1person plural requires the embedded predicate to be nominalized. The subject of the nominalized clause appears in the possessive Case. Nonetheless, the two arguments of the matrix predicate are able to enter into an antecedent/anaphor relation.

[33]There are a number of questions regarding the nature of the conjunction 'and'. I have glossed it as such in keeping with the translation given by the speaker. Kroeber (1991) also records /ʔiy/ as the conjunction 'and'. The question then is what are the differences between /ʔiy/ 'and' versus /hiʔga/ 'and' for the present speaker. Judging from the few tokens which appear in the present corpus, /hiʔga/ conjoins proper names whereas /ʔiy/ appears between co-ordinate clauses. An adequate statement of their function and distribution is beyond the scope of the present paper.

(85b) /tiy-mut šṭ papkʷ=us-taw+ šə ms ʔi+tən tə masiq̓ʷ/
big-very 1plSuCl watch=LS'face'-recip det 1plposs eat det sea urchin
[tʃymʊšṭ pápkʷustàw+ šəms ʔé+tɪn tə mʌ́seq̓ʷ]

'We really watched each other when we were eating sea urchin' (PD 626;708)

If the intermediate NP occupies the thematic object position, then it should be possible to passivize this argument. The next section provides evidence for passive within the main clause.

§4.7 Passivization in Matrix Clause

(86) shows the mapping of the d-topic [woman] onto the null *pro* in object position. The object *pro* in turn controls the subject *pro* within the embedded clause. This example provides evidence that the matrix "object" can be "passivized".

Discourse Context: talking about a particular woman^{i}

(86) /k̓ʷan-a-t-Ø-əm čəy-čuy̓ čaχ-a-t-Ø-as tə janxʷ/
see-lv-CTr-3abs-pass kids cook-lv-CTr-3abs-3erg det fish
[k̓ʷə́nætəm čʃčuy̓ čʌ́χʌtʌs tə jɛ́nxʷ]

'the kids were watching when she^{i} cooked the fish' (PD 393)
(=she^{i} got watched by the kids when she^{i} cooked the fish)

§4.8 Wh-Extraction (Operator Movment of Matrix Object)

If the intermediate NP is really the thematic object of the matrix predicate, then it should behave syntactically as an object. In the next section I show that the intermediate NP can be questioned. (87a) shows wh-extraction of the matrix subject.

(87a) /gat məkʷ-t-Ø kʷu šə masiq̓ʷ/
who eat-CTr-3abs ptc det sea urchin
[gʌ́tʰ mʊ́kʷt kʷu šə mʌ́seq̓ʷ]

'Who ate the sea urchin?' (PD 682)

(87b) questions the matrix object.

(87b) /tam k̓ʷa ʔə məkʷ-t-Ø-as-u+ tə təwməš/
what quot ptc eat-CTr-3abs-3conj-past det man
[tám k̓ʷa ʔ mʊ́k̓ʷtʌso+ tə túmɪš]

'What did the man eat?' (PD 684)

(87c) shows that the intermediate NP can be questioned. Questioning the intermediate NP has the morphological diagnostics of object extraction since it retains the 2sg subject (conjunctive) morphology (cf.§4.2.4). This provides both morphological and syntactic evidence that the intermediate NP in putative R-to-O constructions occupies the thematic object position.

(87c) /gat k̓ʷan-a-t-Ø-axʷ-u+ ʔi+tən-Ø kʷə masiq̓ʷ/
who see-lv-CTr-3abs-2sgconj-past eat-3abs det sea urchin
[gʌ́t k̓ʷə́natáxʷu+ ʔé+tɪn kʷə mʌ́seq̓ʷ]

'Who did you see eat the sea urchin?' (PD 688)

(87d) shows that questioning the embedded object is ungrammatical[34].

(87d) */tam k̓ʷa ʔə k̓ʷan-a-t-Ø-axʷ-u+ Joe məkʷ-t-Ø-as-u+/
what quot ptc see-lv-CTr-3abs-2sgconj-past Joe eat-CTr-3abs-3erg-past
*[tam k̓ʷa ʔ k̓ʷə́natáxʷo+ Joe mʊ́k̓ʷtʌso+]

('What did you see Joe eating?') (PD 760)

§4.8.1 Evidence from Matrix Clefting

If the intermediate NP is really the thematic object of the matrix predicate, then it should behave syntactically as a true object with respect to Clefting as well. (88a) is a R-to-O construction in which 'Bernie' appears after the subject of the matrix predicate and before the embedded clause. All of the evidence we have amassed so far suggests that this overt nominal occupies the direct object position of the main predicate.

(88a) /k̓ʷan-a-t-Ø-u+č Bernie qə-qəy-t-Ø-u+-s Joe/
see-lv-CTr-3abs-past 1sgSuCl Bernie cont-beat-CTr-3abs-past-3p Joe
[k̓ʷə́natɔ̀+č Bernie qéqeytos Joe]

'I've seen Bernie$_{i}$ when he$_{i/*j}$ beat Joe up' (PD 678; 764)

(88b) shows that clefting of the intermediate NP 'Bernie' is grammatical.

(88b) /hi+ Bernie k̓ʷan-a-t-Ø-an-u+ qə-qəy-t-Ø-u+-s Joe/
be it Bernie see-lv-CTr-3abs-1conj-past cont-beat-CTr-3abs-past-3p Joe
[hɛ́+ Bernie k̓ʷə́natæ̀no+ qéqeytos Joe]
'It was Bernie that I've seen when he beat up Joe' (PD 765b)

Clefting of the embedded object 'Joe' in (88a) is also ungrammatical as shown by (88c).

(88c) */hi+ Joe k̓ʷan-a-t-Ø-an-u+ Bernie qə-qəy-t-Ø-u+-s/
be it Joe see-lv-CTr-3abs-1conj-past Bernie cont-beat-CTr-3abs-past-3p
*[hɛ+ Joe k̓ə́natæ̀no+ Bernie qéqeytos]

('It was Joe that I've seen Bernie beat up') (PD 766)

[34]If the embedded object occupies a position within a temporal adjunct clause, then we may have an explanation for the ungrammaticality of (87d). Extraction from an adjunct clause should induce Adjunct Island effects. As will be noted in §5.3.5, it will be valuable to test extraction possibilities from complement clauses, adjunct clauses, and then compare those results with clauses embedded under matrix perception predicates. This remains a topic for further research.

(88c) could be used to support a temporal adjunct analysis since extraction of an embedded object will induce adjunct island effects similar to those observed for (87d).

Assessment of Analyses

This parallels the wh-question extraction data in (87). This data provides further evidence in support of the NP-*pro* 'control' relation proposed here.

§4.9 Pro and Discourse Binding

Sliammon is a *pro*-drop language. This has been proposed for third persons in other Salish languages by Gerdts (1989), Matthewson (1993), Matthewson et al. (1993), Roberts (1994), H.Davis (1994). A non-overt pronominal (*pro*) appears in argument position and has a definite (third person) reference. A null pronominal requires an antecedent; it is anaphoric. H.Davis (1994) provides an account of the mapping of the discourse topic(s) onto syntactic positions. Null pronominals in simple clauses get their reference by virtue of the context in which they occur.

Additional examples from Sliammon provide support for the claim that the empty category in subject position of the lower clause has the properties of a null [+pronominal] and crucially not those of an NP-trace. I first present cases of subject *pro*-drop followed by an example of subject and object *pro*-drop in the same utterance. I then extend this discussion to the "R-t-O" constructions under consideration.

Subject pro-drop

In (89) a null *pro* in subject position is bound by the d-topic 'the woman' so that (89) is interpreted as 'she cooked the fish' in which 'she' is coreferent with 'the woman'.

Discourse Context: The woman^{i} is at the beach.

(89)	/čaχ-a-t-Ø-as	tə	ɟanxʷ /	[čʼáχʌtʌs (tə) ɟə́nxʷ]	
	cook-lv-CTr-3erg	det	fish	'She^{i} cooked the fish'	(PD 140)

Subject and Object pro-drop

(90) shows that in the appropriate discourse context, the predicate may occur by itself without any overt third person nominals (NPs). Since these clauses are generally rejected as discourse-initial utterances, they must receive an interpretation from the discourse context.

Discourse Context: John^{i} is eating sea urchin^{j}

(90)	/məkʷ-t-Ø-as	taʔ/	[mʊ́kʷtæstə]~[mʊ́kʷtʌstə]	
	eat-CTr-3abs-3erg	deictic	'He^{i} has eaten it^{j} (that)'	(PD 109)

Discourse Context: The woman^{i} cooked the fish^{j}.

(91a)	/čaχ-a-t-Ø-as	taʔ/	[čʼáχʌtʌs tə́ʔ]
VF	cook-lv-CTr-3abs-3erg	deictic	

(91b) ?[čʼáχʌtʌs]

'she^{i} is cookin it^{j} (that)' (PD 139)

In transitive clauses the direct object is usually expressed. My consultant was very reluctant to drop the deictic element in (90-91) as shown by the marginal acceptability of (91b). Although Sliammon may definitely be an obligatory subject *pro*-drop language, it is more difficult to find cases of object *pro*-drop (but see (92) below). Since *pro* in 3-3 sentences requires an antecedent, and since the d-topic is typically mapped onto the subject

position, a secondary d-topic must be present in order to license a *pro* in object position. Hence, object *pro* occurs much less frequently than subject *pro*. This binding approach also explains the interpretation available in (92). Note that there is subject and object *pro*-drop in the embedded clause.

(92a)	/papkʷ-a-t-Ø-uɬ	č	Joe	qə-qəy-t-Ø-uɬ-s/
	watch-CTr-3abs-past	1sgSuCl	Joe	cont-beat-CTr-3abs-past-3p
	[pápkʷatðɬč		Joe	qéqeytos]

'I was watching Joe^{i} beating him$^{j/*i}$ up' (PD 227)
(=I was watching Joe$_{i}$ [pro$_{i}$'s beating pro$_{j/*i}$ up])

The subject *pro* in the embedded clause is anaphorically dependent on NP 'Joe' in the matrix clause. Both instances of *pro* cannot be referentially dependent on NP 'Joe' since coindexing subject *pro* with object *pro* within the same minimal domain would constitute a Condition B violation. The second instance of *pro* would fail to be free.

(92a) shows that the matrix object NP 'Joe' controls the embedded subject *pro*. If this NP-pro relation were a result of Discourse Binding, we would expect parallel mapping of discourse functions, yielding the following:

D-Topic: John$_{j}$

(92b) I was watching Joe$_{i}$. He$_{j/*i}$ was beating him$_{i}$ up.

The D-Topic 'John' would be expected to map onto the subject *pro* of the embedded clause whereas the object 'Joe' should map onto the object *pro* within the embedded clause.

By comparing (92b) with (92a), we observe that the NP-*pro* relation is subject to syntactic control between the matrix object and null subject *pro*. As discussed above, I postpone further comparison between Control and discourse binding until §5.

§4.10 Transitive predicates with embedded Intransitives

The next section provides data which are problematic for a Case driven NP-mvt analysis. This data provides evidence in favour of a Control analysis. It also shows that under an Object Control analysis, the Control relation is obligatory.

Consider the intransitive predicate 'dig cedar roots': the d-topic 'John' can be mapped onto the null *pro* in subject position as shown by (93a).

Discourse topic: John^{i}

(93a)	/θi-θiq=nač-Ø/	,	[θéθəqʷnæ̀č]
	dig=LS 'root'-3abs		'he^{i} is digging roots' (PD 487)

(93b) shows that this intransitive predicate can license a single absolutive argument 'John'. This provides evidence that it both Case-marks and theta-marks this overt NP.

(93b)	/θi-θiq=nač-Ø	John/	[θéθəqʷnæ̀č	John]
	dig=LS 'root'-3abs	John	'John's digging roots'	(PD 484)

(94a-b) show that when this predicate is embedded under a verb of perception like 'watch', the overt NP 'John' must occur in the intermediate position.

(94a)	/hu?	tθəm	k̓ʷan-a-t-Ø	John	θiq=nač-Ø/
	go	1sgposs.fut	see-lv-CTr-3abs	John	dig=LS 'root'-3abs
	[hó?	tθəm	k̓ʷə́neth	John	θéqənʌč]
	'I'm gonna go watch John dig roots'				(PD 767)

When 'John' occurs after the predicate 'dig roots', the sentence is ungrammatical as in (94b).

(94b)	*/hu?	tθəm	k̓ʷan-a-t-Ø	θiq=nač-Ø	John/
	go	1sgposs.fut	see-lv-CTr-3abs	dig=LS 'root'-3abs	John
	*[hó?	tθəm	k̓ʷə́neth	θéqənʌč	John]
	('I'm gonna go watch John dig roots')				(PD 769)

Davis (1980) claims that R-to-O is optional. As can be seen from a comparison of (94a-b) the overt NP must appear in the intermediate position. This means that if we adopt an NP-mvt analysis of these facts, then we need to ensure that raising is obligatory.

The ungrammaticality of (94b) presents several difficulties for a Case-driven NP-mvt analysis. As can be seen from (93b) the intransitive predicate 'dig roots' does license an overt subject NP to its right in matrix clauses. Since an NP can be Case marked by this predicate, then we would have to ask what motivates NP-mvt in non-matrix clauses?

A Control account captures the observed facts in the following way: 'John' is base-generated as the direct object of the matrix predicate and provides an appropriate antecedent for a null *pro* within the embedded clause (=94a). The ungrammaticality of (94b) can be explained under the Control analysis. If 'John' were base-generated within the embedded clause, and were bound by (coindexed with) a null *pro* within the matrix clause, then this would result in a Condition C violation (akin to *'I saw him$_i$ when John$_i$ was digging cedar roots'). Given the Control analysis we are able to correctly predict the contrast between (94a-b).

§4.11 Summary

Based on the range of syntactic data presented in §4, there is substantial evidence that the intermediate NP in putative "R-to-O" constructions occupies the thematic object position within the matrix clause. I provide evidence for a Control relation in which the object NP controls a null pronominal in the subject of the non-matrix clause, as illustrated by the schema in (95).

(95) **Object Control Structures**

[Predicate Subject Obj[_____]] [Predicate Subj[_____] Object]

Object controls subject

The syntactic data in §4 also show that this connection cannot be construed as an NP-trace relation. Therefore, it is impossible to maintain an NP-movement analysis of these facts. Subsequently, I will refer to these putative "R-to-O" constructions as cases of Object Control.

Remember that Davis (1980) claims that both the subject of an active transitive clause and the patient in passive clause can undergo "Raising". He concludes that the passive patient must have become the subject of its clause since it can undergo subsequent R-to-O. His argument for a personal passive analysis in Sliammon hinges on his

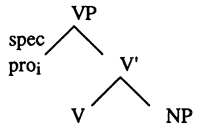
analysis as R-to-O. Once we have shown that R-to-O/NP-mvt are not viable analyses of the full range of facts, then we have done away with the syntactic evidence that gave raise to the morpho-syntactic mismatch in (44). R-to-O is eliminated on conceptual grounds within GB Theory, and a Case-driven NP-movement analysis fails to account for the data in §4.

I conclude that the passive facts are compatible with a Control account and argue that there is no evidence based on the data in this study that the passive patient ever occupies the subject position. In fact there is independent evidence from the behaviour of matrix passives in §2 which argues against Davis' hypothesis. I would like to propose that passives in Sliammon are true impersonal passives and that the passive patient occupies object position.

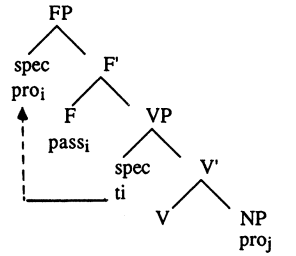
§5.0 Interaction between Control and Discourse Binding

At this point we have established that simple passives in Sliammon involve the delinking of the d-topic from the subject and the mapping of the d-topic onto the object *pro* (recall §2.4). In an active clause the d-topic would be mapped onto the null 3rd person subject as shown by the coindexing in (96a). In (96b) the passive morpheme binds the subject *pro* and the d-topic is mapped onto the 3rd person object *pro* instead.

(96a) D-topic$_i$



(96b) D-topic$_j$



We have established in §4 that the overt NP in Object Control structures is the thematic object of the matrix predicate, and that it enters into a "Control-like" relation with subject *pro* in the non-matrix clause. In this section, I present additional evidence which shows that this intra-clausal relation is a Control relation. I will also show that obligatory Object Control does not follow from a straight forward extension of discourse binding to intra-sentential contexts.

I first present the patterns of interpretation which we expect as a result of both Control and discourse binding. After considering the Sliammon data, we are able to confirm that the NP-pro relation put forth in Hypothesis 2 is an example of Object Control. Huang's (1989) theory of Generalized Control is presented in order to provide a formal theory, as well as a definition of "Control domain". Ultimately this allows us to observe the interaction between Object Control and discourse binding which will be developed in §5.2.

§5.1 Control vs Discourse Binding

Consider the interpretation of sentences like (97) in which the closest NP 'John' functions as the antecedent for *pro*.

(97)	/k̓ʷan-a-t-əm-ʔuɬ	k̓ʷa	Bill	John	məkʷ-t-Ø-uɬ-s	šə	masiq̓ʷ/	
	see-lv-CTr-3abs-pass-past	quot	Bill	John	eat-CTr-3abs-past-3p	det	sea urchin	
	[k̓ʷə́nætàmoɬ	k̓ʷa	Bill	John	mɪ́ɪk̓ʷtos	šə	mə́seq̓ʷ]	
	'Bill was watching when John ate the sea urchin'							(PD 579)
	(Bill$_i$ was watching John$_j$ when he*$_{i/j}$ ate sea urchin)							
	(=got watched by Bill$_i$ John$_j$ when he*$_{i/j}$ ate sea urchin)							

The possible coindexing indicates that the intra-clausal relations result from syntactic Control and do not follow in a straight forward manner from discourse binding. If we extended d-binding to matrix-embedded contexts of this kind, we might expect the *pro* in the subject of the non-matrix clause to be coindexed with the subject of the matrix clause (Bill) in accordance with the Parallelism Constraint on Discourse Functions (Matthewson 1993). This Parallelism Constraint operates across clause boundries and ensures that coreferential NPs have the same discourse function (subject-subject; object-object). If the coreference possibilities in intra-clausal environments were determined by discourse binding, then one would expect the discourse participants to map onto parallel grammatical functions in the same way that they do for independent clauses. The d-binding pattern for independent clauses is presented in (98-101).

Discourse Binding/Parallelism Constraint

(98a) shows schematically the mapping of the d-topic 'Jim$_i$' onto the null *pro* subjects in both independent clauses.

D-Topic: Jim$_i$

(98a) He$_i$ caught sight of Arlene$_j$. He$_i$'s talking to her$_j$. Subject - Subject
Object - Object

(98b) provides the Sliammon equivalent of the first independent clause.

(98b) /ḵʷa ḵʷan-nW-Ø-as Arlene/
quot see-NTr-3abs-3erg Arlene

[ḵʷa ḵʷɛ́nəxʷʌs Arlene]

'He$_i$'s seen Arlene' (he turned around and caught sight of her) (PD 772)

The interpretation of (98b) shows that the d-topic is mapped onto the subject position. (98c) provides an example of parallel mapping of both subject-subject and object-object. The subject *pro* in (98c) is bound by 'Jim' and the object *pro* is bound by Arlene, the argument which occupies the object position of the previous independent clause (see 98b).

(98c) /qʷɪ-qʷay-sW-Ø-as/ [qʷɛ́qʷeysxʷʊs]
imp-speak-Caus-3abs-3erg 'He$_i$'s talking to her$_j$' (PD 774)

(98) therefore provides an example of the canonical discourse mapping of the d-topic onto the subject *pro* and the object onto the object *pro*.

(99a) provides the discourse context for (99b). (99b) shows another example of the discourse mapping of subject-subject and object-object.

(99a) Pete$_i$ is looking for Jim$_j$. Subject-Subject
Object - Object

(99b) /ya-yaɬ(ɪ)-a-t-Ø-as qʷəl̓-(a)s q̓ʷɪt/ imp-
cont-call-lv-CTr-3abs-3erg come-3p beach

[yɛ́yɛɬlæ̀tʌs qʷʎlᵊs q̓ʷɛ́tʰ]
'He$_i$'s calling him$_j$ to go down to the beach' (PD 782)

(100-101) show that the discourse mapping between clauses must respect the parallelism constraint. (100a) expresses the prohibition on mapping the subject of the first clause onto the object of the second clause.

D-Topic: Jim$_i$

(100a) #He$_i$ caught sight of Joe$_j$. Pete$_k$ called him*$_{i/j/*k}$. #Subject - Object

(100b) provides the first of these two independent clauses in Sliammon.

(100b) /ḵʷan-nW-Ø-as ḵʷə Joe (q̓ʷɪt)/
see-NTr-3abs-3erg det Joe (beach)

[ḵʷɛ́nəxʷʌs ḵʷə Joe (q̓ʷɛ́tʰ)]
'He$_i$'s seen Joe$_j$ (at the beach)' (PD 780)

(100c) was avoided as can be seen by the comments of the speaker since the d-topic/subject could not be mapped onto the object within the second clause.

(100c) ('Pete$_k$ called him$_i$')

Mrs. Dominic: "you need to say who he called" (PD 780a)

The passive in (100c') was volunteered instead in order to accommodate two third person participants as discussed in §2.

(100c') /ya-yaɬ(ɪ)-a-t-Ø-əm ḵʷə Pete Jim qʷəl̓-(a)s q̓ʷɪt/
VF cont-call-lv-CTr-3abs-pass det Pete Jim come-3p beach

[yɛ́yɛɬlætəm ḵʷə Pete Jim qʷʎlᵊs q̓ʷɛ́tʰ]
'Pete$_k$ is calling Jim$_i$ to go down to the beach' (PD 781)

The next example is an attempt to map the object of the first independent clause onto the subject of the second independent clause as in (101a).

D-Topic: Jim$_i$

(101a) #Pete was calling him$_i$. He$_i$ was talking to Joe. #Object - Subject

(101b) PD: "so whose doing the talking—it is unclear who's talking to Joe" (PD 784)

(101b) reflects the inability of the speaker to link these two sentences. I assume that this is avoided since it violates the parallelism constraint on discourse mapping. Now that we have established the expected pattern for d-binding, we can reconsider (97) repeated here as (102).

(102) /ḵʷan-a-t-əm-ʔuɬ ḵʷa Bill John məkʷ-t-Ø-uɬ-s šə masɪq̓ʷ/
see-lv-CTr-3abs-pass-past quot Bill John eat-CTr-3abs-past-3p det sea urchin

[ḵʷɛ́næ̀tə̀moɬ ḵʷa Bill John mʊ́kʷtos šə mʎseq̓ʷ]

'Bill$_i$ was watching John$_j$ when he*$_{i/j}$ ate sea urchin' (PD 579)
(=got watched by Bill$_i$ John$_j$ when he*$_{i/j}$ ate sea urchin)

If the Parallelism Constraint on the mapping of grammatical functions were responsible for determining intra-clausal relations, then we would expect (102) to have the opposite indexing. The passive agent 'Bill' would be expected to bind null subject in the embedded clause. Instead the object of the matrix clause 'John' and subject *pro* of the embedded clause refer to the same individual. Discourse binding cannot account for the observed obligatory

control in (102) since the only available interpretation for (102) is the one in which John (object) and the subje *pro* (he) are coreferent.

(103) shows an active example which provides a near-minimal constrast with (102).

D-Topic: Bill$_i$

(103)	/papk^w-a-t-Ø-as	John	mək^w-t-Ø-as	tə	masɬq̓^{w}/
	watch-lv-CTr-3abs-3erg	John	eat-CTr-3abs-3erg	det	sea urchin
	[pápk^{w}ʌtʌs	John	mʊ́k^{w}tʌs	tə	mʎseq̓^{w}]

'He's watching John eat the sea urchin' (PD 770)
(=He$_i$'s watching John$_j$ while he*$_{i/j}$ eats the sea urchin)

The d-topic 'Bill' binds the matrix subject pro while the embedded subject *pro* is controlled by the object N 'John'. We have established therefore that the NP-*pro* relation does not follow from the parallelism constraint o discourse binding.

5.2 Huang's (1989) Generalized Control Theory (GCT)

Huang (1989) proposed that all of the essential facts regarding the distribution of null pronominals (pro/PRC follow from his theory of Generalized Control. He proposes that there is a single null pronominal ([+pronominal which must be controlled within its control domain (if it has one). This control domain is the specification of th environment in which a null pronominal has a "local, unique, non-arbitrary antecedent." The formal specification i given in (104) as it appears in Huang (1989).

(104a) **Generalized Control Rule (GCR)**

An empty pronominal is controlled in its control domain (if it has one).

(104b) **Control Domain**

α is the control domain for β iff it is the minimal category that satisfies both (a) and (b):

a. α is the lowest S or NP that contains (i) β, or (ii) the minimal maximal category containing β (henceforth, MMC(β)).

b. α contains a SUBJECT accessible to β.

Huang claims that if pro/PRO is not controlled in its Control Domain, then its reference is determined by factor which fall outside of the theory of Generalized Control.

I propose that the relation between a 3person NP in the matrix clause and a null 3person pronominal (*pro*) in a nor matrix clause (complement clause or adjunct clause) is determined by Generalized Control.

(105) [I saw John$_i$ [pro$_i$ eat sea urchin]] Intra-sentential --> Generalized Control

Relations between elements in independent clauses follows from Discourse Binding as outlined in §5.1. I postpon a discussion of the interaction between Control and d-binding until later in this section. First consider the intra sentential relations in (106).

(106a) [I saw John$_i$ [pro$_i$ eat sea urchin]]

(50) is repeated here as (106b) in order to remind the reader of the pronominal morphology which occurs on the predicate in these Object Control constructions.

(106b)	/k̓^{w}an-a-t-Ø-u+č	John	mək^w-t-Ø-as	tə	masɬq̓^{w}/
	see-lv-CTr-3abs-past 1sgSuCl	John	eat-CTr-3abs-3erg	det	sea urchin
	[k̓^{w}ə́natə̀+č	John	mʊ́k^{w}tʌs	tə	mʎseq̓^{wh}]

'I watched John when he ate the sea urchin' (PD 118)

(106c) [k̓^{w}ə́natə̀+č John$_i$ [mʊ́k^{w}tʌs pro$_i$ tə mʎseq̓^{w}]]

An empty 3 person subject pronominal *pro$_i$* which occurs within the embedded clause must be controlled within its control domain (if it has one). In this case the control domain is the matrix clause. So within the matrix clause, *pro* requires a "local, unique, non-arbitrary antecedent". The embedded subject *pro* is controlled by the matrix object 'John' as shown in (106c).

Huang (1989), in his discussion of what constitutes a control domain, states that the minimal S clause is the control domain if there is rich agreement as in Italian. In languages with poor agreement, like English or Chinese, the control domain for a null subject *pro* is the immediate superordinate clause. Although Sliammon appears to have "rich agreement", the control domain for a null subject *pro* is the immediate superordinate clause just as in English or Chinese. We must conclude that agreement does not satisfy the principle of recoverability in Sliammon, and so is not an accessible SUBJECT. The control domain must be the matrix clause as shown by the Sliammon facts[35].

If the matrix clause is the control domain for a null *pro* within a non-matrix clause, then we can explain why the Sliammon equivalent of examples like (107) are ruled out.

(107) *[I saw you [when [pro ate-3Subj sea urchin]]] (cf. PD 785)

A null subject pronominal in the non-matrix clause which is indicated by 3 person subject agreement on the predicate 'eat' refers to a third person. The control domain for this *pro* is the matrix clause. The subject *pro* is licensed in this embedded context as long as it is controlled within its control domain. It therefore must be controlled in the immediate superordinate clause according to the GCR in (104). Note however that the two potential controllers, the matrix subject 'I' and the matrix object 'you' do not bear compatible person features. Therefore an embedded *pro* which has a control domain fails to be controlled in that domain. We can therefore exclude instances of *pro* in this context and explain the ungrammaticality of (107).

According to Huang, the theory of Generalized Control predicts that a null pronominal can occur in either an embedded complement clause or an adjunct clause, as long as it has a higher category as its control domain, and that it is properly controlled in that domain.

Complement clauses and adjunct clauses receive uniform treatment since their control domain will necessarily be the matrix clause. Huang (1989) presents a theory in which obligatory control follows as a direct consequence of the syntactic structures in which these embedded clauses occur. Obligatory control is configurational in nature, and is not stated as a lexical property of the predicates involved.

In summary, Huang claims that the reference of a null pronominal is determined by its controller (if it has a control domain) or is free (if it has no control domain). Within Huang's theory, any null pronominal can enter into a Control relation. In Sliammon, only 3rd person null pronominals enter into this Control relation since they are the only null arguments base-generated in the language. As noted in §1.2, 1/2persons are pronominal arguments and

[35]It seems that MComox has finite clauses which are marked for different kinds of aspectual distinctions and therefore, appears to be like the Chinese cases discussed by Huang (1989) in which the embedded clause contains a null *pro* as the subject of a finite clause, but that an accessible SUBJECT is not present. It is for this reason that the matrix clause must become the control domain since it must contain a subject in order to satisfy Huang's GC Rule. I do not attempt to resolve this issue further here.

appear on the predicate complex. Again there is the observed split between the behaviour of 1/2 persons versus 3rd persons. I propose the following explicit formulation for Sliammon (Salish).

(108) The environments in which a null 3rd person pronominal element is allowed, its reference is determined by its controller (if it has a control domain)

or

If the null 3rd person pronominal has no control domain, then its reference is determined by the Discourse Parallelism Constraint of Matthewson (1993) and H.Davis (1994).

Consider the following example in which the discourse topic 'Bill' has been mapped onto the null pronominal in subject position of the matrix clause.

D-Topic: Bill$_i$

(109)	/papkʷ-a-t-ø-as		John	məkʷ-t-ø-as		tə	masiqʷ/
	watch-lv-CTr-3abs-3erg		John	eat-CTr-3abs-3Su		det	sea urchin
	[pápkʷʌtʌs	pro$_i$	John$_j$	[mʊ́kʷtʌs	pro*$_{i/j}$	tə	mʌ́seqʷ]

'He$_i$'s watching John$_j$ eat the sea urchin'
(=he$_i$'s watching John$_j$ while he*$_{i/j}$ is eating sea urchin')

Mrs. Dominic: "John's doing the eating, and Bill's doing the watching." (PD 770)

The embedded *pro* receives its reference from the closest accessible antecedent within its control domain (=matrix S) which is 'John'. Coindexation with the matrix subject *pro*$_i$ is ruled out since there is a closer controller. Now consider the interaction of control and discourse binding as illustrated by (110). (110a) is an example of a matrix passive with an embedded clause of the kind under discussion.

Discourse Context: talking about a particular woman$_i$

(110a)	/ƛ̓ʷan-a-t-ø-əm	čəy-čuy̓	čaχ-a-t-ø-as		tə	janxʷ/
	see-lv-CTr-3abs-pass	kids	cook-lv-CTr-3abs-3erg		det	fish
	[ƛ̓ʷə́nætəm	čʃ́čuy̓	čʌ́χʌtʌs		tᵊ	jɛ́nxʷ]

'the kids were watching (her) when she^i cooked the fish' (PD 393)
(=she^i got watched by the kids when she^i cooked the fish)

(110a) has the following structure. As argued in §2.2, the passive morpheme /-əm$_j$/ binds the null pronominal in subject position of the matrix clause.

(110b)	[ƛ̓ʷə́næt-əm$_j$	čʃ́čuy̓$_j$ pro$_j$	pro	[čʌ́χʌtʌs	pro	tᵊ	jɛ́nxʷ]]
	got watched	the kids	her	[cooked	she	det	fish]]

'the kids were watching (her) when she cooked the fish' (PD 393)

This allows the discourse topic 'the woman' to map onto the 3rd persons null *pro* in object position. This step is illustrated in (110c).

D-Topic: a particular woman$_i$

(110c)	[ƛ̓ʷə́næt-əm$_j$	čʃ́čuy̓$_j$ pro$_j$	pro$_i$	[čʌ́χʌtʌs	pro	tᵊ	jɛ́nxʷ]]
	got watched	the kids	her	[cooked	she	det	fish]]

'the kids were watching (her) when she cooked the fish' (PD 393)

These binding relations yield the matrix passive 'she got watched by the kids'.

Now consider the reference of the subject *pro* within the embedded clause 'when she cooked the fish'. As discussed above, the control domain for the embedded subject is the matrix clause. The closest local antecedent for the embedded subject is the matrix object pro$_i$.

(110d)	[ƛ̓ʷə́nætəm	čʃ́čuy̓$_j$ pro$_j$	pro$_i$	[čʌ́χʌtʌs	pro$_i$	tᵊ	jɛ́nxʷ]]
	got watched	the kids	her	[cooked	she	det	fish]]

'the kids were watching (her$_i$) when she$_i$ cooked the fish' (PD 393)

In this example, the discourse topic appears to be mapped onto both the matrix object and the embedded subject. Comparison with other data in the paradigm show that discourse binding is responsible for mapping of the d-topic onto the matrix object, and that the theory of Generalized Control ensures that the embedded *pro* is properly controlled within its control domain.

To summarize, the reference of *pro* in embedded contexts follows from Control theory whereas the reference of null pronominals in matrix clauses follows from discourse binding.

(111)	Intra-sentential (reference of *pro* in Complement clauses/Adjunct clauses)	Generalized Control Theory
	Matrix Clauses (reference of *pro* in Matrix clauses)	Discourse Binding

Now consider (112) which is an abstract representation of the embedded passive of Davis (1980) (=43b).

(112) [I saw you^i [when beaten up Joe^j pro^j you^i]]

'I saw you when you got beaten up by Joe'

As independently motivated for passives in §2, the passive morpheme in the non-matrix clause binds the embedded subject *pro*. 1/2 persons are independently identified by agreement morphology, the 2nd person object within the embedded clause apparently does not need a controller. Only null 3 person pronominals need to be controlled. The distinction between 1/2 person versus 3 person in Sliammon which was noted in §1.2 plays a role in Object Control structures of this kind. Embedded 3rd person null pronominals require a controller whereas 1/2 persons do not.

§5.2.1 Control in Non-Matrix Clauses: C-command Requirement

Both Huang (1989) and Borer (1989) allow for Control into both complement clauses and adjunct clauses. (113) provides examples of Control into post-verbal adjunct clauses in English. Borer (1989) claims that the difference in grammaticality between these two utterances can be accounted for in terms of c-command: the matrix subject 'John' c-commands the embedded *pro* in (113a) and therefore controls it, whereas the matrix object fails to c-command the embedded *pro* in (113b) and Control is blocked.

(113a) John$_i$ saw Mary [while [pro$_i$ crossing the street]]. (Borer 1989:80)

(113b) *John saw Mary$_j$ [while [pro$_j$ crossing the street]]. (Borer 1989:80)

If we take c-command to be central to deriving Control effects, then we need to consider whether or not the matrix object c-commands the *pro* in the subject position of the non-matrix clause in Sliammon. If the non-matrix clause in (114a) were a non-complement clause (=temporal adjunct), then adjunction to VP would have a number of consequences. We would have to ensure that the object NP could c-command into the temporal adjunct clause. I assume that the c-command requirement must be satisfied inasmuch as it provides us with an account of the English contrast noted in (113).

(114a) /k̓ʷan-a-t-Ø-u+č [John] mək̓ʷ-t-Ø-as tə masɬq̓ʷ/
see-lv-CTr-3abs-past 1sgSuCl [John] eat-CTr-3abs-3erg det sea urchin

[k̓ʷə́natǝ̀+č John$_i$ [mɨ́k̓ʷtʌs pro$_i$ tə mʌ́seq̓ʷ]]
'I watched John when he ate the sea urchin' (PD 118)

If the non-matrix clause were a complement clause, then the c-command requirement would be satisfied.

§5.3 The Nature of the Non-Matrix Clause: Questions for Further Research

So far we have established that there is an obligatory Object Control relation between a null pronominal in a non-matrix clause and a local antecendent (object) within the matrix clause in sentences like (50), repeated here as (115). We have not yet discussed in any detail the nature of this so-called "embedded" clause.

(115) /k̓ʷan-a-t-Ø-u+č John mək̓ʷ-t-Ø-as tə masɬq̓ʷ/
see-lv-CTr-3abs-past 1sgSuCl John eat-CTr-3abs-3erg det sea urchin

k̓ʷə́natǝ̀+č John [mɨ́k̓ʷtʌs pro tə mʌ́seq̓ʷ]
'I watched John [when he ate the sea urchin]' (PD 118)

Attempts to determine to what extent this embedded clause shares properties with complement clauses or with adjunct clauses have been inconclusive. The non-matrix ("embedded") clause in question could be a temporal adjunct clause which is adjoined to VP. This hypothesis seems plausible given the consultant's gloss inevitably includes 'while/when', even though these elements are not realized phonetically. Preliminary data are consistent with either (i) an adjunct clause analysis or (ii) a complement clause analysis. Additional research is required before choosing between these two analyses.

It should be noted that by adopting a theory of Generalized Control along the lines of Huang (1989) the outcome of this question does not effect the nature of the Object Control relation since subjects of embedded complement clauses and subjects of post-verbal adjunct clauses receive uniform treatment within Huang's theory as noted in §5.2. It is therefore an independent empirical question to what extent the non-matrix clause in question shares properties with complement clauses or adjunct clauses in languages such as English[36].

§5.3.1 The Morphology of the Non-matrix Clauses

Kroeber (1991) in his study of the *Comparative Syntax of Subordination in Salish* provides us with some morphological criteria for determining the nature of non-matrix clauses.The obvious question here is how does the morphology of Object Control constructions in Sliammon compare with the morphological properties of other non-matrix clauses.

[36]Kroeber (1991) has discussed the difficulty of determining whether or not an embedded clause in any Salish language is a true argument of the matrix predicate (=complement clause). I refer the reader to Kroeber's dissertation which discusses a range of subordinate clauses across the language family.

Kroeber notes that non-matrix temporal clauses may be introduced by an introductory particle (det) but need not be. Kroeber also notes that some temporal clauses appear with conjunctive (subject) morphology (Sechelt/Shuswap) while others, such as those in Kalispel, display plain subject inflection. In his discussion of the Coast Salish patterns, he claims that future and habitual temporal clauses take conjunctive (subject) person marking, whereas temporal clauses and immediate perception complements are nominalized. In nominalized clauses the subject (possessor) is marked by the presence of possessive morphology. Many of the Object Control structures tested in this study involve 3rd person arguments. The 3erg (subject) /-as/ and 3conj (subject) /-as/ are identical in Sliammon. /-as/ is also easily confounded with the 3sg possessor /-s/ due to phonological reduction and deletion. The non-matrix clauses in Object Control structures need to be tested further with 1/2 persons in order to confirm the nature of their subject agreement.

Kroeber also notes that MComox (Sliammon) sometimes uses nominalized clauses without an overt determiner although there are other cases in which this determiner (usually k̓ʷ) is present in order to introduce subordinate clauses. Since the nominalizer has been lost in Sliammon, and the introductory particle (det) can be missing, then nominalized clauses may occur without any overt introductory morphology. The determiner k̓ʷ does not introduce in any of the Object Control structures which I have tested.

The pattern which emerges from the study of Object Control structures presented here is that non-matrix clauses appear to be nominalized, even though nominalization is not always present due to strict syllable-structure constraints in Sliammon (cf. Davis 1978, Kroeber 1991). Subjects of nominalized clauses are normally marked by possessive morphology (cf.83-84). Non-matrix intransitive predicates in Sliammon appear to take possessive morphology, whereas non-matrix transitives take conjunctive morphology as in (86).

§6.0 Conclusions

The major empirical and analytical generalizations which emerge from this study of perception predicates, passives and Control in Sliammon are summarized in §6.1-2.

§6.1 Empirical Generalizations

Many of the empirical findings presented in this paper are consistent with Davis' description of the language. Interesting differences and additional generalizations which I have discovered include the following:

(122)	a.	The Single Nominal Constraint (as in Lushootseed)	§1.5
	b.	The obligatory nature of Object Control relation	§4.10
	c.	Difference in the syntactic behaviour of 1/2 persons versus 3rd persons	§5.2
	d.	The relationship between Discourse Binding and Control	§5.2

§5.3 asks about the nature of the non-matrix clause in Object Control structures and sets out issues for further research. The morphological facts relating to nominalization of the non-matrix clause are particularly interesting: non-matrix intransitives take possessive morphology whereas non-matrix transitives appear to take conjunctive marking.

I have also provided evidence for a number of independent syntactic constructions in Sliammon based on both grammatical and ungrammatical utterances. The data presented here represents an indepth study of Object Control structures and will provide a basis for further research on Sliammon.

§6.2 Analytical Conclusions

The analytical conclusions which I would like to emphasize relate to my analysis of the passive morpheme and Object Control structures. I have approached the investigation the morpho-syntactic mismatch of Davis (1980) from two different directions. Based on the independent behaviour of main clause passives in §2, I show that Sliammon has an impersonal passive construction.

An investigation of R-to-O constructions presented in §4 provides evidence that the intermediate NP is the thematic object of the matrix predicate. I have argued that the relation between the matrix object and the non-matrix subject *pro* is best analysed as one of obligatory Object Control. Under this analysis, there is no movement involved. This is probably the first time that obligatory Control has been identified in a Salish language and is therefore a

significant finding. An Object Control analysis of these facts enables us to reconsider Davis' (1980) conclusio regarding the apparent "morpho-syntactic mismatch" in Sliammon. Once we have reinterpreted "R-to-O" as Obje Control, we are able to resolve this apparent morpho-syntactic mismatch. The Object Control anlysis which propose is consistent with an impersonal passive analysis in Sliammon. I therefore conclude that the morphologic properties of Sliammon passives are an accurate reflection of the syntactic structures involved.

Appendix A
Pronominal Markers in Sliammon

Pronominal Subject Markers (cf. Davis 1970 et seq., Kroeber 1991, and Watanabe 1994)

Person	Main Clause—full	Main Clause—reduced	Subordinate (conjunctive)	Possessives
1sg	čan, čən	č	-an	t^{θ}
2sg	$čax^{w}$	$čx^{w}$	$-ax^{w}$	θ
1pl	čat	št	-at	ms
2pl	čap	čəp	-ap	-ap
3person	ø Intrans (3Abs) -as Trans (3Erg)	ø Intrans (3Abs) -as Trans (3Erg)	-as	-s (3sg) -it (3pl)

Object Suffixes-Active paradigm

Person	Control Transitive -t	Noncontrol Transitive -(n)(ə)W	Causative -s(t)W
1sg Obj	-θ (fused)	-nu-mš	-stu-mš
2sg Obj	-θi (fused)	-nu-mi	-stu-mi
1pl Obj	-t-umuɬ	-nu-muɬ	-stu-muɬ
2pl Obj	-t-anapi	-n-anapi	-st-anapi
3 Obj	-t-ø	$-(n)əx^{w}-ø$	$-stəx^{w}-ø \sim -sx^{w}-ø$

Object Suffixes-Passive paradigm

Person	Control Transitive -t	Noncontrol Transitive -(n)(ə)W	Causative -s(t)W
1sg Obj	-θay (fused)	-nu-may	-stu-may
2sg Obj	-θi (fused)	-nu-mi	-stu-mi
1pl Obj	-t-uw	-nu-muw	-stu-mow
2pl Obj	-t-anapi	-n-anapi	-st-anapi
3 Obj	-t-ø	-nu-ø (main clause) -nəg-ø (subord. clause)	-stu-ø (main clause) -stəg-ø(subord. clause)

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