§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). Kroeker (1991) in his comparison across the Salishan 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. Kroeker maintains that they should be classified as passives nonetheless, since the agent can be expressed by an oblique phrase. According to Kroeker (1991), only four languages within the family (Squamish, Straits, Lushootseed, and Twana) have replaced the proto-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-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. In this section, I explicitly compare and contrast an NP-motion (NP-mv) analysis versus an NP-pro Control analysis. I will conclude that an NP-mvR/VP 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 prototypical 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 (sgdpl) are nominative/accusative, whereas 3persons show an ergative/absolute pattern. The 3person subject of a transitive verb (3ergative) is identified by the presence of f-/as/ on the predicate. 3person subjects of intransitives and 3person direct objects of transitive predicates pattern together as absolutes. The 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 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 here to include a nominal (sg/dpl), nouns preceded by a determiner (det N), and proper names. Sliammon, like other Salish languages, is a language in which the verbal complex often corresponds to a complete sentence as shown in (1).\(^1\)

(1) /?aɪəm-tsw-m-as/5
eat-Caus-lsgObj-3erg

They fed me.

(PD 274)

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.

\(^1\)This research can be 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 Matthews (1996) for a discussion of the syntax and semantics of DPs in Salish.

\(^2\)NPs can 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 Matthews (1996) for a discussion of the syntax and semantics of DPs in Salish.

\(^{3}\)Abbreviations used in the morpheme-by-morpheme glosses are as follows: abs=absolutive, aux=auxiliary, C=Cleft, C=Causative, comp=complementizer, conj=conjunctive(subjective), cont=continuative, CT=control transitivizer, det=definite article, det=determiner, D=direct object, d-topic=data topic, ep=epenthetic, erg=ergative, fut=future/unrealized, g=genitive, -inal=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, pas=passive, past=past/perfective, perf=perfective, pl=plural, poss=possessive, ptc=particle, Q=question, quot=quotative, RC=relative clause, recip=reciprocal, red=reduplication, refl= reflexive, R-to-O=Raising-to-Object, sg=singular, st=stative, S=Subordinate Clause, subj=subject, subj=subject clitic, tran=transitive, tran=transitive, tr=truly, trig=trigeminal, u=ungrammatical, un=ungrammatical, v=verb, word=final, wj=words, 0/0= as 0/0 in vocative position, as (w) post-vocally, as (w) pro-vocally and as (\(w\)) word-finally.

See Blake (1992) for a protodic analysis of the vowel glide/obstinate alternations in Sliammon.
§1.3 Word Order

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

(2a) /? ? ? lHan-e cont-eat-3abs John/ (PD 88)
cont-eat-3abs John ‘John is eating’

(2b) *([John ? ? ? lHan-e) (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) /? ? ? lHan-e cont-eat-3abs John/ (PD 88)
cont-eat-3abs John ‘John is eating’

(3b) *([ta] ? ? ? lHan-e) (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 (4-5). An overt NP in pre-predicate position is ungrammatical as shown by (5b-c).

(5a) /? ? ? lHan-e cont-eat-3abs John/ (PD 88)
cont-eat-3abs John ‘John is eating’

(5b) *([ta] ? ? ? lHan-e) (PD 138)

‘The woman cooked the fish’

(5c) *([ta] ? ? ? lHan-e) (PD 315)

‘The woman cooked the fish’

(5d) *([ta] ? ? ? lHan-e) (PD 138)

‘The woman cooked the fish’

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):

(6) /? ? ? lHan-e cont-eat-3abs John/ (PD 88)
cont-eat-3abs John ‘John is eating’

(7) /? ? ? lHan-e cont-eat-3abs John/ (PD 88a)
cont-eat-3abs John ‘John is eating’

(8) /? ? ? lHan-e cont-eat-3abs John/ (PD 88a)
cont-eat-3abs John ‘John is eating’

(9) /? ? ? lHan-e cont-eat-3abs John/ (PD 88a)
cont-eat-3abs John ‘John is eating’

(10) /? ? ? lHan-e cont-eat-3abs John/ (PD 88a)
cont-eat-3abs John ‘John is eating’

(11) /? ? ? lHan-e cont-eat-3abs John/ (PD 88a)
cont-eat-3abs John ‘John is eating’

(12) /? ? ? lHan-e cont-eat-3abs John/ (PD 88a)
cont-eat-3abs John ‘John is eating’

(13) /? ? ? lHan-e cont-eat-3abs John/ (PD 88a)
cont-eat-3abs John ‘John is eating’

(14) /? ? ? lHan-e cont-eat-3abs John/ (PD 88a)
cont-eat-3abs John ‘John is eating’

(15) /? ? ? lHan-e cont-eat-3abs John/ (PD 88a)
cont-eat-3abs John ‘John is eating’

(16) /? ? ? lHan-e cont-eat-3abs John/ (PD 88a)
cont-eat-3abs John ‘John is eating’

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 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.

---

6Proper names appear in English orthography throughout this paper.
7The determiner is often reduced or deleted in fast speech as indicated by the parentheses.
§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), 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-ʔ-ʔ-as to Jim to məsəqʷ/ eat-CTr-3abs-3erg det Jim det sea urchin

*'Jim is eating sea urchin' (PD 177)

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

(10a) */čəχ-a-ʔ-ʔ-as to sətIx to jənkʷ/ cook-lv-CTr-3abs-3erg det woman det fish

*'The woman cooked the fish'

(10b) */čəχ-ʔ-ʔ-at-ʔ-as to sətIx to jənkʷ/ 'The woman cooked the fish'

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

(10c) čəχ-a-ʔ-ʔ-at-ʔ-as to sətIx to jənkʷ/ cook-lv-CTr-3abs-3erg det woman det fish

FALSE. 'The woman cooked the fish'

(10d) (*čəχ-ʔ-ʔ-at-ʔ-as to sətIx to jənkʷ/)

VF be it pc fut woman cook-lv-CTr-3abs det fish

false. 'The woman's gonna cook the fish' (PD 738)

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 relevant 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.

(11a) *kʷan-a-ʔ-ʔ-as to qa-ʔ-ʔ-at-ʔ-as Jim/ see-lv-CTr-3abs 1sgSu Joe cont-beat-CTr-3abs-3erg Jim

[Joe qəqeytəs 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) *[kʷan-ʔ-ʔ-at-ʔ-as to Joe qa-ʔ-ʔ-at-ʔ-as 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) tət-ʔ-ʔ-at-ʔ-as to təmʔ/ shoot-CTr-3abs-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) *[ʔə-ʔ-a-ʔ-ʔ-at-ʔ-as to qəʔ-ʔ-ʔ-ʔ-at-ʔ-as]

VF be it pc fut woman taste-lv-CTr-3abs-obl det children det water

false. 'the kids tasted the water' (PD 359)
(92)

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

(14) */qα-qay-t-θ-am οa Joe Jim/
cont-beat-CTr-3abs-pass obl Joe Jim

[qegetam οa Joe Jim]

'Jim is being beaten up by Joe'

(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 */qα/.

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

(15a) /ya(!)-a-t-θ-am Sahana ta ɛay-ɛuy/11
 call-lv-CTr-3abs-pass Name det children

[yɛtalɑm Sahana ta ɛfɛuy]

'Sahana called the kids' (PD 189)

(15b) /qa-qay-t-θ-am Joe Jim/
cont-beat-CTr-3abs-pass Joe Jim

[qegetam Joe Jim]

'Joe beat Jim up' (=got beat up Jim by Joe)

For the present speaker, the passive */-am/ construction is used to accommodate 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) /la(!)-a-t-θ-am Ɂa ɛay-ɛuy Ɂa qigaθ/
VF taste-lv-CTr-3abs-pass det children det deer

[lɛatɑm Ɂa ɛfɛuy Ɂa qigaθ]

'the kids tasted the deer' (=got tasted by the kids the deer)

(16b) /la(!)-a-t-θ-am Ɂa qigaθ Ɂa ɛay-ɛuy/
taste-lv-CTr-3abs-pass det deer det children

[lɛatɑm Ɂa qigaθ Ɂa ɛfɛuy]

' the deer are tasting the kids' (=got tasted by the kids the deer)

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

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

(17a) /qɛʔatɑm Ɂa ɛfɛuy/
taste det children

('It got tasted by the kids')

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

(17b) /qɛʔatɑm Ɂa Ɂɑʔye/
taste det water

('the water got tasted')

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) */kʰan-a-t-θ ɛ Ɂa(!)-a-t-θ-as Sahana ɛay-ɛuy/
see-lv-CTr-3abs 1sgSu call-lv-CTr-3abs-3erg Sahana kids

*[kʰan Ɂa Ɂa qɛlɛməts Sahana ɛfɛuy]

'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) /kʰan-a-t-θ ɛ Sahana Ɂa(!)-a-t-θ-as ɛay-ɛuy/
see-lv-CTr-3abs 1sgSu Sahana call-lv-CTr-3abs-3erg kids

[kʰan Ɂa qɛlɛməts Sahana ɛfɛuy]

'I'm watching Sahana calling the kids' (=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 been "demoted" since the subject of an active predicate can be raised.

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

12In 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.
§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 adjointed-position of the passive agent is motivated.

(22a) /t$AX-a-t-@-am s@n Janx'w/  
cook-IV-CTR-3sbs-pass det woman det fish  
[l$AX@tas (ta) Janx'w]  
'S/he cooked the fish'  
(PD 140)

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

(21b) /t$AX-a-nW-@ s@n Joe  
know-IV-3sbs Joe  
[lt$AX@nas@n Janx'w]  
(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.

The transitive verb $AXat is the head of the lexical projection (VP). The direct object NPj is generated as sister to V, and is theta-marked by this V-head. The subject argument pro1 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 pro1 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) pro1 and -as1 enter into this Spec-head relation15. Finally, the verb $AXat raises, via head movement, to incorporate the higher functional head -as1. 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) /t$AX-a-t-@-am s@ntxw ta Janx'w/  
cook-IV-CTR-3sbs-pass det woman det fish  
[lt$AX@tas (ta) s@ntxw ta Jenx'w]  
'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 -am in Sliammon. It is a partial structure in which the passive agent 'by the woman' has been omitted for purposes of exposition16.

14Since 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.

15I 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 (-0), 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.

16Although 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.
onto the object (FP). Evidence from MComox alone does not allow us to decide between these two alternatives. Cross-linguistic evidence from Cowichan (Salish) in §3.1.

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 \( \text{pro}_1 \) which originates in \([\text{Spec}, \text{VP}]\). The passive morpheme which occupies the head of a higher functional projection binds this null subject pronoun. Binding takes place as a result of Spec-head agreement within FP\(^1\)\(^7\). 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)\(^1\)\(^8\). As with the active, the object NP ‘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 absolute 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).

181n §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 \( \text{pro} \) 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) being left-adjointed to VP as shown in (23c). The passive agent is coindexed with the subject \( \text{pro}_1 \) which originates in \([\text{Spec}, \text{VP}]\). This analysis derives the correct word-order restrictions on the passive agent has the status of an Argument-adjunct (i.e., an adjunct which is construed with an argument position) as discussed by Grinnshaw (1990). The NP in adjunct position inherits subject Case from \( \text{pro}_1 \) in order to be visible at the level of Phonetic Form (PF). As before, \( \text{pro}_1 \) raises from \([\text{Spec}, \text{VP}]\) to \([\text{Spec}, \text{FP}]\) for Case. The remainder of the derivation follows from the discussion of (23b). The predicate \( \text{\$at} \) 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-adjointed) which provides further support for the claim that the passive agent is adjuncted. 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’.

**Locatives**

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

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

(25b) shows the canonical position of the locative phrase ‘at school’.

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) /k'ən-nəm-məy-am/
see-NTr-1sgObj-pass
[kənomayəm]

'They've seen me'

("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) /ʁiʔtən-stəm-məy-am/
eat-Caus-1sgObj-pass
[ʁiʔtənθəməyəm]

‘this lady fed me today’

(=’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) /liʔ-aʔ-tə-ə-am/ VF
taste-lv-CTr-3abs-pass
det children

[liʔətəm] to əfɛuy]

‘the kids tasted it’ (the deer)

(=’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).

(31) Active Clause

Verbactive

Subj [pro ] Obj [NP]

Agent

d-topic

Passive Clause

Verbpassive

Adjunct [NP] Obj [pro ]

Passive Agent

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) /ʁaʔ xoʔay-təqan-s Mary-Anne (st 8 θəkəm) /
bad mind-3poss Mary-Anne (today)

[ʁaʔ xoʔay-gənəs məʔʔəm (st 8 θəkəm)]

‘Mary-Anne is sad (today)’

(323) 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) /qaʔ-qay-tə-ə-as Jim/ 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) qa-qay-t-s-am Jim/ [aqeytam 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 Kroeker's characterization of these constructions as basically "transitive" in nature. I have proposed an analysis in which the passive morpheme binds a null pronominal subject in a direct object position. This linking relation therefore allows the discourse topic to map onto a null 3rd person argument in a direct object position. The passive agent appears in a VP-adjointed 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:

Cowichan19..............Sliammon..............Lushootseed

<table>
<thead>
<tr>
<th>Impersonal Passive (IP)</th>
<th>Mixed</th>
<th>Personal Passive (PP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>morph: IP</td>
<td>morph: IP</td>
<td>morph: PP</td>
</tr>
<tr>
<td>syntax: IP</td>
<td>syntax: PP</td>
<td>syntax: PP</td>
</tr>
</tbody>
</table>

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 (~ab) 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.

---

19Lillooet, 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) ?u-g"aÆ~a=dt-Ø [ti sq"abay?] Active

perf-look-for-CTR-3abs 1plSuCl [det dog]

'The dog looked for us' (adapted from T.Hess 1995:10)

(35b) ?u-g"aÆ~a=t-ab Passive

perf-look-for-CTR-pass 1plSuCl [obl det dog]

The dog looked for us ("we were looked for by the dog") (adapted from T.Hess 1995:24)

(35c) Structure of Personal Passive in Lushootseed

As before, the passive morpheme (here ~ab) binds the VP-internal subject pro. 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, this object NP cannot get object Case as confirmed by the absence of object agreement. The passive morpheme binds the subject pro in [Spec, F]. The presence of an overt subject clitic motivates the existence of F1. The VP-internal object raises to the specifier of F1 in order to receive subject Case. The passive agent appears in an oblique phrase headed by the oblique particle /?a/. The predicate raises in order to incorporate the passive morpheme. The subject ?a+ 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 (35a-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) ิ่ม-า–ตา-งา‌มะ can look-CTR-2Obj I Active 'I look at you' (Hukari 1976; Davis 1980:284)

(36b) ิ่ม-า–ต-า-ง-ม ำ‌ะ โจ 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 projection (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 \(\text{pro}_{\text{P}}\) in [Spec, FP\(_1\)] via Spec-head agreement. The passive agent appears in an oblique phrase headed by the oblique particle /ʔa/. The verb assigns a theta-role to the object NP\(_{\text{P}}\) which moves to [Spec, FP\(_1\)] 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 \(\text{pro}_{\text{P}}\) 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 interrupting 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 \(\text{pro}_{\text{P}}\) 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 /-am/. Note that the 1/2 sg object suffixes are fused with the control transitizer /-t/.

(37a) /säp-t-am/  [säptam] 'you got hit' (PD 22)
(37b) /kä-w a  sáp-nw-t-á-am/ Doug säptam čay-čuy/ 'he got hit' (PD 675)
(37c) /kä-w  sáp-x-á-am/ Doug säptam čly/ 'Some kids accidentally 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) /säp-t-am  čx'/  [säptam  čx']
hit-CTR.2sgObj-pass  2sgSuCl 'you got hit' (PD 319)

(38b) /säp-t-á-am/  [säptamas]
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, /kä-w/ 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 /-t/ absolutive in both passive and active clauses as in (37b) and (39b).

(39a) /säp-t-á  č/  [säptč]
hit-CTR.2sgObj  1sgSuCl 'I hit you' (PD 739)

(39b) /säp-t-t-á-t-á  Ruben/  [säptč Ruben]
hit-CTR-3sbs-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-3sgpos | -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 cz s qa-qay-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 I for the subordinate proclitic (nominalizer) /s/.

(41b) /papkw-a-t cz Joe s qa-qay-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 cz Jim s qa-qay-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 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 8 is the 2nd singular possessive morpheme and marks the subject of a nominalized subordinate (non-matrix) clause.

(42a) /papkw-a-t-sl cz s qa-qay-t-s Joe/21

watch-lv-CTr-2sgObj 1sgSuCl nom cont-beat-CTr-3abs Joe

'I watch you beat Joe up' (= 'I watched you, your beating Joe up')

(Davis 1980:281)

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-sl cz s qa-qay-t-sl-s Joe/

watch-lv-CTr-2sgObj 1sgSuCl nom cont-beat-CTr-2sgObj-(s)he Joe

(42c) */papkw-a-t-sl cz qa-qay-t-sl-s Joe/

watch-lv-CTr-2sgObj 1sgSuCl nom 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) /papkw-a-t cz Jim s qa-qay-t-sl-1t ?a Joe/

watch-lv-CTr 1sgSuCl 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).

(43b) /papkw-a-t-sl cz qa-qay-t-sl-sl 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

20Davis (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 /papk/ 'observe' as in /papkw/ 'I observed s.o.' Thanks to Mrs. Elsie Paul of Sliammon who provided this form.

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

22As noted in §1.2 MComox has a split ergative system: 1/2 vs 3rd persons. In §5.2.1 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) n1 lam-aRelam
aux look-CTr-1sgObj.intr (pass) obl det woman
'I was looked at by the woman'

(Gerdts 1989:186)

(45b) n1 lam-aRelam
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 Transitive (-t) is followed by a 1/2 person singular object, as shown in (46a)23.

Control Transitive with T-Obj fusion in Sliammon

(46a) /ya+1(a)-a-ay-um-am/ Sue sjasuu/ *t.say θay call-lv-CTr-1sgObj-pass Sue yesterday
[ly+1(a)-ayt m Sue sjesoo] ‘Sue called me yesterday’

(Gerdts 1989:197) the same restriction holds of Halkomelem; T-Object fusion is restricted to 1/2 person singular objects with the -t transitivizer.

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) /ya+1(a)-a-ay-um-am θay call-lv-CTr-2sgObj-pass-past Q Mona/ *t.s θ

[y+1(a)-ayt m θ Yan] 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 borne out in Sliammon as shown by a comparison of (46a-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+1(a)-a-t-uw-um-am k'a Joe/ cont-call-lv-CTr-1plObj-pass det Joe
[ly+1(a)-ayt m] k'a Joe 'We got called by Joe'

(PD 569; 654)

(47b) *ly+1(a)-ayt-am-811-pass-1plSu

(PD 654)

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

(47c) /ya+1(a)-a-t-anapi-um-am k'a Joe/ cont-call-lv-CTr-2plObj-pass det Joe
[ly+1(a)-ayt m] k'a Joe

You folks got called by Joe'

(PD 570; 655)

(47d) *ly+1(a)-ayt-am-plSp-

(PD 655)

Moreover, since T-Obj fusion does not occur with the other transitivizers (NTr or Causs), 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: [?6tinstaŋapom...] and not [?76tinstaŋapom...]. 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.
Underlying representations

Surface forms

/ʔiʔan-stw-max-am/  [ʔiʔantənəm]  ['they fed me']  (PD 150)

/ʔiʔan-stw-m1-am/  [ʔiʔantənəm]  ['somebody fed you']  (PD 151)

/ʔiʔan-stw-um-am  kʷə/  [ʔiʔantənəm  kʷə?]  'they're gonna use us'  (PD 154)

/ʔiʔan-stw-ann-um-am  kʷə/  [ʔiʔantənəm  kʷə?]  'they're gonna feed you folks'  (PD 156)

/ʔiʔan-stw-m-am/  [ʔiʔantənəm]  '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 coreferent with some argument of the matrix clause) which holds between matrix-clause and subordinate-clause elements. 

(49) təxʷ-nu-m1 č [ʔ-a-ʔat-ʔam]  Sliammon

'I know (you) that you are sleepy'  (Davis 1978b; Kroeber 1991)

Kroeber’s discussion therefore calls into question the R-to-Q/AC analysis proposed by Davis (1980), at least for 3persons. My findings suggest that Kroeber is correct with respect to 3persons; for cases involving ordinary coreference, 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) /kʷən-an-a-t-θ-ut-č/  [John]  maŋʷ-t-θ-as  to  maštəqʷ/

see-IV-CTR-3abs-past  1sgSuCl  eat-CTr-3abs-3erg  det  sea urchin

[kʷənəstənəc]  [John]NP  muʃˈtəs  to  məˈseʔɛm\h]

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

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 (C0 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" (n) 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 monoclusal 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 /ʔɛxʷ/ of the matrix clause and before the embedded predicate as shown in (52a).

(52a) /kʷən-an-a-t-θ-ut-č  ħxʷ/  [Joe]  maŋʷ-t-θ-as  maštəqʷ/

see-IV-CTR-3abs-past-Q  2sgSuCl  eat-CTr-3abs-3erg  sea urchin

[kʷənəstənəc]  [Joe]  muʃˈtəs  məˈseʔɛm'

'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) *[kʷənəstənəc]  [Joe]  məˈseʔɛm'

'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) *[kʷənəstənəc]  [Joe]  məˈseʔɛm

'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-predicate 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 auxiliary ‘come’ as in (54a).

(54a) /qa/1 can sam títan k‘a masi?q/  
VF come 1sgSu fut eat det sea urchin  
[q‘a/1 can sam ?é?itín k‘a máse?q‘a]  
‘I’m gonna come over and eat sea urchin’

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

(54b) /qa/1 can sam t? Ø ?ítan k‘a masi?q/  
VF come 1sgSu fut eat det sea urchin  
[q‘a/1 can sam ?é?itín k‘a máse?q‘a]  
‘I’m gonna come over and eat sea urchin’

Building on the basic word order facts and having established that ‘come’ is an auxiliary 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 auxiliary.

D-Topic: Joe

(55a) /ya+t(1)-a-t-Ø-as Jim q‘al s ?ítan k‘a masi?q/  
VF call-lv-Cfr-3abs-3erg Jim come 3poss eat det sea urchin  
‘He called Jim to come over and eat (sea urchin) (with him)’

(55b) shows that ‘Jim’ cannot occupy a position between the auxiliary and the embedded predicate.

(55b) /ya+t(1)-a-t-Ø-as q‘a/1 s Jim ?ítan k‘a masi?q/  
VF call-lv-Cfr-3abs-3erg Jim come 3poss eat det sea urchin  
[?é?ímísas q‘a/1 s Jim ?é?itín k‘a máse?q‘a]  
‘He called Jim to come over and eat (sea urchin) (with him)’

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 CPl. (56) shows that the overt nominal ‘Sahana’ occurs before ‘ga’.

(56) /papk‘a-a-t-Ø t¿am [Sahana] ga mak¿-t-Ø-as sam to ?asx‘a/  
VF watch-lv-Cfr-3abs 1sg.fut [Sahana] if come-2sgconj 3abs fut det seal  
[papk‘a t¿am [Sahana] ga mufk‘tasam-Cfr-3abs-3erg tØ ?asx‘a]  
‘I’m gonna watch and see if Sahana’ll eat the seal’

(PD 448)

(57a-b) establishes that the particle ‘ga’ must precede the auxiliary ‘come’.

(57a) /papk¿a-a-Ø t¿am ga q‘al-as ?ítan-Ø k‘a masi?q/  
VF watch-lv-Cfr-2sgObj 1sgposs.fut if come-2sgconj 3abs fut det sea urchin  
[papk¿a aØ t¿am ga q‘a?lax‘a ?é?itín k‘a máse?q‘a]  
‘I’m gonna watch you to see if you’re gonna come and eat sea urchin’

(PD 593)

(57b) /papk¿a-aØ t¿am ga q‘alax‘a ga ?é?itín watch-lv-Cfr-2sgObj 1sgposs.fut if come-2sgconj 3abs fut 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) /papk‘a-a-t-Ø stam John ga mak¿-t-Ø-as to ?asx‘a/  
VF watch-lv-Cfr-3abs 1pl.fut John if come-2sgconj 3abs fut det sea urchin  
[papk‘a stam John ga mufk‘tas (ta) máse?q‘a]  
‘we’re gonna watch and see if John’ll eat sea urchin’  
(=we’re gonna watch John and see if he’ll eat sea urchin)

(PD 108)

(PD 746)

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

(58b) /papk¿a-stam ga John ga mufk‘tas (ta) máse?q‘a  
we’re gonna watch if John eat det sea urchin  
(‘we’re gonna watch and see if John’ll eat sea urchin’)  
(=we’re gonna watch John and see if he’ll eat sea urchin)

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

(PD 391)
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) ![Diagram](image)

'we're gonna watch and see if John'll eat sea urchin'

§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 cannot be bound by a potential antecedent in any domain. The operator-variable chain relation is represented schematically in (60).

(60) ![Diagram](image)

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).

(62a) ![Example](image)

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 -as I posit /-as') as shown in (62b).

(62b) ![Example](image)

§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) ![Example](image)

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

(63b) ![Example](image)

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

(63c) ![Example](image)
Object Extraction

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

(64a) /h(+1) ?a sam s Janx^m mak^w-t-Ø-at st^θuk^w/

VF be it ptc fut nom fish eat-CTr-3abs-1plconj today

[\(\text{h} + \text{sam} \text{Janx}^m \text{mak}^w-t-\text{at} \text{st}^\theta \text{uk}^w\)]

'We are 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.

(64b) */h(+1) ?a sam s Janx^m mak^w-t-Ø st^θuk^w/

be it ptc fut nom fish eat-CTr-3abs today

[\(\text{h} + \text{sam} \text{Janx}^m \text{mak}^w-t-\text{at} \text{st}^\theta \text{uk}^w\)]

'We are going to eat this fish today (=it's the fish we'll eat today) (PD 187)

It's the fish that will eat it today' (sounds funny!) (PD 387a)

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

(66a) /tam k^w a ?a mak^w-t-Ø-as-u+ ta tawma^S/

what quot ptc eat-CTr-3abs-3erg-past det man

[tam k^w a ?a mak^w-tas-o+ t^a tuma^S]

'What did the man eat?'

(66b) */tam k^w a ?a mak^w-t-Ø-u+ ta tawma^S/

what quot ptc eat-CTr-3abs-past det man

[tam k^w a ?a mak^w-t-o+ t^a tuma^S]

'What did the man eat?'

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 constricted 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) /k^w an-a-t-Ø-u+ c Joe qa-qay-t-Ø-as Jan/

see-iv-CTr-3abs-past IsgSuC1 Joe cont-beat-CTr-3abs-emph Jim

[\(\text{k}^\wedge \text{nat}^\wedge \text{c} \text{Joe qa-qay-t-Ø-Jim}\)]

'I watched Joe beat Jim up'

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

(67b) */k^w an-a-t-Ø-u+ c Joe qa-qay-t-Ø-Jim/

see-iv-CTr-3abs-past IsgSuC1 Joe cont-beat-CTr-3abs Jim

[\(\text{k}^\wedge \text{nat}^\wedge \text{c} \text{Joe qa-qay-t-Ø-Jim}\)]

'I watched Joe beat Jim up'

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 constructions 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'at'imcets as well as to Kroeger (1991) for a survey of these constructions in Salish in general.

29It 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.

30
(68a-68b) show parallel examples.

(68a) [k'wan-a-t-θ-u4 st John maf'k-t-θ-as ta masid'/
VF see-lv-Ctr3-abs-past 1plSuCl John eat-Ctr3-abs-3erg det sea urchin
[θùmsatd̆tʃ st John maf'k'as ta m'sešt̆m]

'We caught sight of John eating sea urchin'

(68b) *[k'wan-a-t-θ-u4 st John maf'k-t-θ ta masid'/
see-lv-Ctr3-abs-past 1plSuCl John eat-Ctr3-abs det sea urchin
*[θùmsatd̆tʃ st John maf'k-t ̄____ ta m'sešt̆m]

('We caught sight of John eating sea urchin')

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 cannot 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) [pášík'as̆st̆m John cpcl-{qa ip'maf'k'as m'sešt̆m]}cp1p
w̆we will watch John if eat-Ctr3-abs-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 Spec/AgrO) 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'

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI

IplSuCI
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 pronoun 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" controls the embedded subject pro.

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

\[
{k^{\text{nat}}}\theta_{\text{v}}\text{[John]}}\ c_\text{p}[m^{\text{d}}k^{\text{t}}t_{\text{s}} \text{pro}^1 \to m^{\text{ss}}}(\text{pro})
\]

+Theta role
+Case
NP Antecedent

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 position 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 straightforward 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 accommodates 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) /papk\text{-a-t}\theta_{\text{u}}\text{t} \text{pro} /watch-lv-CTr-3abs-past 1sgSuCl Joe cont-beat-CTr-3abs-3erg Jim

\[
[p^{\text{papk}}\text{a-t}\theta_{\text{u}}\text{t} \text{pro}]
\]

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

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.

Note that (72) 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) /papk\text{-a-t}\theta_{\text{u}}\text{t} \text{pro} /watch-lv-CTr-3abs-past 1sgSuCl Joe

\[
[p^{\text{papk}}\text{a-t}\theta_{\text{u}}\text{t} \text{pro}]
\]

'I was watching Joe'

(74a) /kw a q\text{-a-q}\text{-ay-t}\theta_{\text{a}}\text{as} 1sg/quot cont-beat-CTr-3abs-3erg Jim

\[
[kw a q\text{-a-q}\text{-ay-t}\theta_{\text{a}}\text{as}]
\]

'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 position 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).
Discourse Context 1:

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

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

D-topic: the search party

(76a) /kʷən-a-t-θ-u4/ ə  ya4(1)-a-θ1-it-u4/31
see-lv-CTr-3abs-past 1sgSuCl call-lv-CTr.2sgObj-pass-past
[kʷəⁿə̂̄ʔənə̂̄tə+⁴]

'I've seen them when they called you'

('I've seen them when you got called by them') (PD 480)

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 nowhere in sight?"

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-erect 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 de/ is identical to the embedded passive idi/ which would be better glossed as 'I've seen them, their calling you'. This is a topic for future research.

Discourse Context 2:

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

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) /kʷən-a-t-θ-u4/ ə s ťəŋə-a-θ1-it-u4/
see-lv-CTr-3abs-past 1sgSuCl nom search-lv-CTr.2sgObj-pass-past
[kʷəⁿə̂̄ʔənə̂̄ʔə+⁴]

'I watched them when they searched for you'

('I watched them when you got searched for by them') (PD 410,450)

(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) /kʷən-a-t-θ-u4/ ə təŋə-a-θ1-it-u4/
see-lv-CTr-3abs-past 1sgSuCl nom search-lv-CTr.2sgObj-pass-past
[kʷəⁿə̂̄ʔənə̂̄ʔə+⁴]

'I watched you when they searched for you'

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

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 hiding spot from where I am hidden. The others are searching for us.

(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 them' as is shown by the overt matrix object agreement.
37

(78a) /k'wan-a-01-h-u+ c [θy-a-01-1t-u4/ see-lv-CTr.2sgObj-ep-past 1sgSuCl search-lv-CTr.2sgObj-pass-past
[k'wānæθə+t+c əθə+t+c]

'I watched you when they searched for you' (PD 517)

(78b) /k'wan- at-0-u+ c s [θy-a-01-1t-u4/ see-CTr.3abs-past 1sgSuCl nom search-lv-CTr.2sgObj-pass-past
[k'wānæθə+t+c sθy-aθə+t+c]

'I watched when they searched for you' (PD 518)

Although (78b) is grammatical in the context of (78a) whereas (79b) is ruled out

Discourse Context 4:

(79) You and I were very proud of you. I was watching you.

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

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

(79a) /k'wan-a-01-h-u+ c ya(1)-a-01-1t-u4/ see-lv-CTr.2sgObj-ep-past 1sgSuCl call-lv-CTr.2sgObj-pass-past
[k'wānæθə+h0t+c əθə+h0t+c]

'I was watching you when they called you' (PD 414, 493)

(79b) /k'wan- at-0-u+ c ya(1)-a-01-1t-u4/ see-CTr.3abs-past 1sgSuCl call-lv-CTr.2sgObj-pass-past
[k'wānæθə+t+c əθə+t+c]

'I've seen when they called you' (PD 495)

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 pronoun morpholgy appears in both the matrix clause and the embedded clause.

Under a R-to-o 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-Objec 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 pronouns which predicts semantic pairs of this kind. Further support for this position comes from the interpretation of examples like (80).

Discourse Context: John is eating sea urchin.

(80) /pāpkw-a-t-0-u4 c māk'-t-0-as əθə māsiə'/
VF watch-lv-CTr.3abs-past 1sgSuCl eat-CTr.3abs-3erg det sea urchin

[pāpkw atō+t+c māk'-tas əθə māsiə]

'I watched him when he 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) /pakpW“-a-t-Ô-u+ c Joe qa-qay-t-Ô-as/
watch-IV-CTr-3abs-past 1sgSuCl Joe cont-beat-CTr-3abs-3erg

\[
[pakpW“äätë+c \quad \text{Joe qeqeytas}]
\]

'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) /k“an-a-Ô-u+ c Joe qa-qay-t-Ô-as Jim/
see-IV-CTr-3abs-past 1sgSuCl Joe cont-beat-CTr-3abs-3erg Jim

\[
[k“äätë+c \quad \text{Joe qeqeytas} \quad \text{Jim}]
\]

'I watched Joe beat Jim up'  
(PD193)

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-nvt 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) *(/k“äätë+c qeqeytas Joe Jim)
I watched Joe Jim

'I watched Joe beat Jim up'  
(PD195)

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) /k“an-a-Ô-u t Joe qiatan-s k“a mäst“/ see-IV-CTr-reflex Joe eat-3poss det sea urchin

\[
[k“äneôtë t Joe qëtëins k“a mäse“]
\]

'Joe is watching himself, while he’s eating sea urchin'  
(PD718)

(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 1 person sg/pl.

(84a) /k“an-a-Ô-u+ t e Ix“at-?am-(?u+4 see-IV-CTr-reflex-past 1sgSuCl 1sgposs fall-intr-past

\[
[k“äneôtë t e Ix“atam“]
\]

'I’ve seen myself when I was falling'  
(PD712)

(84b) /tIy-nut 1t k“an-a-Ô-u t sa ms qiatan-?u+4 big-very 1plSuCl see-IV-CTr-reflex det 1plposs eat-past det sea urchin

\[
[k“äneôtë 1t qëtëins 1plmäse“]
\]

'We really watched ourselves when we ate sea urchin'  
(PD707)

§4.6.2 Reciprocals

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

(85a) /pakpW“us-taw+t Joe ni?aga Jim ?1-?Htan ta mäst“/33 watch=LS’face’-recip Joe and Jim impf-eat det sea urchin

\[
[pakpW“ustaw+t Joe ne?aga Jim qëtëtëins t e mäse“]
\]

'Joe and Jim watched each other while they were eating sea urchin'  
(PD632)

Again (85b) with the 1 person 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.

33There 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. Kroober (1991) also records /?iy/ as the conjunction 'and'. The question then is what are the differences between /?iy/ 'and' versus /ni?aga/ 'and' for the present speaker. Judging from the few tokens which appear in the present corpus, /ni?aga/ conjoons proper names whereas /?iy/ appears between co-ordinate clauses. An adequate statement of their function and distribution is beyond the scope of the present paper.
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 provides evidence that the matrix "object" can be "passivized".

Discourse Context: talking about a particular woman

(86) /k'wan-a-t-θ-am ēay-ćeγ ēx-a-t-θ-as tə Jänx/ see-lv-CTR-3abs-pass kids cook-lv-CTR-3abs-3erg det fish
[k'wāmqtam cǐʕuy ēx'xas tə Jēnx] the kids were watching when she cooked the fish

(=she got watched by the kids when she cooked the fish)

§4.8 Wh-Extraction (Operator Movement 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) /gət mākʷ-t-θ kʷu ʂa masiq'/ who eat-CTR-3abs ptc det sea urchin
[gət th mūs'mt kʷu ʂa məseq '/]'Who ate the sea urchin?'

(87b) questions the matrix object.

(87b) /tam kʷa ʔa mākʷ-t-θ-as-u+ tə tawməs/ what quot ptc eat-CTR-3abs-3conj-past det man
[təm kʷa ʔa mukʷtəsəʔ tə təməs] 'What did the man eat?'

(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) /gət kʷan-a-t-θ-axʷ-u+ ʔi̞ tan-θ kʷa masiq'/ who see-lv-CTR-3abs-3conj-past eat-3abs det sea urchin
[gət kʷənətāxʷu+ ʔətan kʷa məseq'/]'Who did you eat the sea urchin?'

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

(87d) */k'wan-a-t-θ-axʷ-u+ Joe makʷ-t-θ-as-u+/ what quot ptc see-lv-CTR-3abs-3conj-past Joe eat-CTR-3abs-3erg-past
*ltəm kʷa ʔa kʷənətāxʷu+ Joe mukʷtəsəʔ ('What did you see Joe eating?')

(87e) /gət kʷan-a-t-θ-am kʷu ʔa masiq'/ who eat-CTR-3abs-3conj-past eat-3abs det sea urchin
[gət kʷənətāxʷu+ ʔətan kʷa məseq'/] ('It was Joe that I've seen Bernie beat up') (PD 686)

§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) /k'wan-a-t-θ-utë Bernie qa-qay-t-θ-ut-s Joe/ see-lv-CTR-3abs-past 1sgSuCI Bernie cont-beat-CTR-3abs-past-3p Joe
[k'wānətātë Bernie qa-qaytos Joe] 'I've seen Bernie, when he beat Joe up'

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

(88b) /hɨt Bernie k'wan-a-t-θ-an-u+ qa-qay-t-θ-u+s Joe/ be it Bernie see-lv-CTR-3abs-1conj-past cont-beat-CTR-3abs-past-3p Joe
[hɨt Bernie k'wənətənəʔ qa-qaytos Joe] 'It was Bernie that I've seen when he beat up Joe'

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

(88c) */hɨt Joe k'wan-a-t-θ-an-u+ Bernie qa-qay-t-θ-u+s/ be it Joe see-lv-CTR-3abs-1conj-past Bernie cont-beat-CTR-3abs-past-3p Joe
*ltəm Joe k'wənətənəʔ Bernie qa-qaytos] ('It was Joe that I've seen Bernie beat up') (PD 766)

34If 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 §5.3.2, 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.
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 Gerlts (1989), Matthewson (1993), Matthewson et al. (1993), Roberts (1994), H.Davis (1994). A non-overt pronounal (pro) appears in argument position and has a definite (third person) reference. A null pronounal requires an antecedent; it is anaphoric. H.Davis (1994) provides an account of the mapping of the discourse topic(s) onto syntactic positions. Null pronouns 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 present first 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 woman1 is at the beach.

(89) /ðəq̓aʔ-əʔ-ə-as to jən̕xʷ/ [ɬ̓q̓əʔx̣ə̀staʔ oʃjəʔ]  
cook-iv-CTR-3erg det fish  
'She1 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: John1 is eating sea urchin1

(90) /maʔ-əʔ-ə-as taʔ/  
eat-CTR-3abs-3erg deictic  
'[he] has eaten it (that)' (PD 109)

Discourse Context: The woman1 cooked the fish.

(91a) /ðəq̓aʔ-əʔ-ə-as taʔ/ [ɬ̓q̓əʔx̣ə̀staʔ taʔ]  
VF cook-iv-CTR-3abs-3erg deictic  
'she1 is cookin it (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) /pəp̓əʔ-kʷ-ə-ʔ-ə-uʔ/ [jəʔ qaʔ-qay-t-ʔ-ə-uʔ-s]  
watch-CTFr-3abs-past 1sgSuCl  
Joe cont-beat-CTFr-3abs-past-3p  
[əʔəp̓əʔ-kʷəʔ-əʔ] [jəʔ qəʔqəʔtəs]  
'I was watching Joei beating himi up'  

(PD 227)

The subject pro in the embedded clause is anaphorically dependent on NP 'Joei' in the matrix clause. Both instances of pro cannot be referentially dependent on NP 'Joei' 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 'Joei' 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: Joe1

(92b) I was watching Joei. Hej1 was beating himi up.

The D-Topic 'Joei' would be expected to map onto the subject pro of the embedded clause whereas the object 'Joei' 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 'Johni' can be mapped onto the null pro in subject position as shown by (93a).

Discourse topic: John1

(93a) /ʔə-ʔɪ-pəʔ-nəʔ-əʔ/ [ʔəʔəqəʔqəʔnəʔ]  
dig=LS 'root'-3abs  'he1 is digging roots' (PD 487)

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

(93b) /ʔə-ʔɪ-pəʔ-nəʔ-əʔ John/ [ʔəʔəqəʔqəʔnəʔ John]  
dig=LS 'root'-3abs John  
'John's digging roots'  

(PD 484)
The syntactic data in §4 also show that this connection cannot be construed as an embedded clause, and were bound by (coindexed with) a null clause can undergo impossible to maintain an NP-movement analysis of these facts. Subsequently, I will refer to these putative “R-to-O. Remember that 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 when John 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 pronoun in the subject of the non-matrix clause, as illustrated by the schema in (95).

(95) Object Control Structures

<table>
<thead>
<tr>
<th>Predicate</th>
<th>Subject</th>
<th>Obj</th>
<th>Object</th>
</tr>
</thead>
</table>

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, (96b) D-topic

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 straightforward 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) /kʷən-a-t-am-ʔuʃ kʷə Bill John maʃkʷ-t-ə-ú-s \$a mələbʔ/ 

We conclude that passive patient NP movement is impossible in this sentence. The data in this study show that 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.

(96) D-topic

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 straightforward 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) /kʷən-a-t-əm-ʔuʃ kʷə a Bill John maʃkʷ-t-ə-ú-s \$a mələbʔ/ see-lv-CTR-3abs-pass-past quot Bill John eat-CTR-3abs-pass-3p det sea urchin

We conclude that passive patient NP movement is impossible in this sentence. The data in this study show that 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.

(96) D-topic

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 straightforward 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) /kʷən-a-t-əm-ʔuʃ kʷə a Bill John maʃkʷ-t-ə-ú-s \$a mələbʔ/ see-lv-CTR-3abs-pass-past quot Bill John eat-CTR-3abs-pass-3p det sea urchin

We conclude that passive patient NP movement is impossible in this sentence. The data in this study show that 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.

(96) D-topic

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 straightforward 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) /kʷən-a-t-əm-ʔuʃ kʷə a Bill John maʃkʷ-t-ə-ú-s \$a mələbʔ/ see-lv-CTR-3abs-pass-past quot Bill John eat-CTR-3abs-pass-3p det sea urchin

We conclude that passive patient NP movement is impossible in this sentence. The data in this study show that 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.
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 boundaries and ensures that coreferential NPs have the same discourse function (subject-object; 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’ onto the null pro subjects in both independent clauses.

D-Topic: Jim

(98a) Hej caught sight of Arlene. Hej’s talking to herj.

Subject - Subject

Object - Object

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

(98b) /kʷən-nw-θ-əs Arlene/

see-NTr-3abs-3erg Arlene

[kʷə nwa Arlene]

‘Hej’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) /qʷi-θ-ay-sw-θ/ [qʷəŋəswus]

imp-speak-Caus-3abs-3erg ‘He’s talking to her’ (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-object; subject-object.

(99a) Petej is looking for Jimj.

Subject-Subject

Object - Object

(99b) /ya-yat(1)-a-t-θ-əs qʷəl-əs θ’lt/ cont-call-Caus-3abs-3erg come-3p beach [qʷələs θ’lt]

‘He’s calling Jimj 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

(100a) #Hej caught sight of Joej. Petej called himj ‘yj.

#Subject - Object

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

(100b) /kʷən-nw-θ-əs Joej (θ’lt)/ see-NTr-3abs-3erg det Joej (beach)

[kʷə nwa Joej (θ’lt)] ‘Hej’s seen Joej (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) (‘Petej called himj’)

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-yat(1)-a-t-θ-əs kʷə Joej qʷəl-əs θ’lt/

VF cont-call-Caus-3abs-3erg pass det Petej Jim come-3p beach [qʷələs θ’lt]

‘Petej is calling Jimj 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

(101a) #Petej was calling himj. Hej was talking to Joej.

#Object - Subject

(101b) PD: "so whose doing the talking—it is unclear who’s talking to Joej” (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) /kʷən-nw-θ-əs Billj John mak’-t-ə-ut-s sa masť’ə/ see-lv-Caus-3abs-past past det Billj John eat-Caus-3abs-past-3p det sea urchin [kʷə nwa Billj John masť’ə] ‘Billj was watching Johnj when hej ate sea urchin’ (PD 579)

If the Parallelism Constraint on the mapping of grammatical functions were responsible for determining intra-clausal relations, then we would expect the passive agent ‘Billj’ to be expected to bind null subject in the embedded clause. Instead the object of the matrix clause ‘Johnj’ 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 subject pro (he) are coreferent.

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

D-Topic: Bill

(103) /papk^w-a-t-0-as John ma^k^-t-0-as ta masiq^w/ watch-IV-CTR-3abs-3erg John eat-CTR-3abs-3erg det sea urchin

[papk^w-tas John mun^k^w-tas t^0 maseq^w]

'He's watching John eat the sea urchin'

(=He's watching John while he = he 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 on 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:generalized control] which must be controlled within its control domain (if it has one). This control domain is the specification of the environment in which a null pronominal has a "local, unique, non-arbitrary antecedent." The formal specification 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 factors which fall outside of the theory of Generalized Control.

I propose that the relation between a 3rd person NP in the matrix clause and a null 3rd person pronominal (pro) in a non-matrix clause (complement clause or adjunct clause) is determined by Generalized Control.

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

Relations between elements in independent clauses follows from Discourse Binding as outlined in §5.1. I postpone 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 Johni pro 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) [k^w-an-a-t-0-ui-c John ma^k^-t-0-as ta masiq^w/ see-IV-CTR-3abs-past 1sgSucCl John eat-CTR-3abs-3erg det sea urchin

[k^w-nat^d^t^c John mun^k^w-tas t^0 maseq^w(m)]

'I watched John when he ate the sea urchin'

(106c) [k^w-nat^d^t^c Johni mun^k^w-tas pro t^0 maseq^w]]

An empty 3 person subject pronominal pro 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.

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 example like (107) are ruled out.

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

A null subject pronoun 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 structure 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 pronouns enter into this Control relation since they are the only null arguments base-generated in the language. As noted in §1.2, 1/2 persons are pronominal arguments and

---

35It 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

(109) /papkw-a-t-ø-as John maskw-t-ø-as ta masiQ’/ watch-IVCTr-3abs-3erg John eat-CTr-3abs-3Su det sea urchin

[kapkw’tası pro] Johnj [maskw’tası pro]j tø msaxeq’

‘He’s watching Johnj eat the sea urchin’

Mrs. Dominic: “John’s doing the eating, and Bill’s doing the watching.”

(110) /papkw-a-t-ø-am ẓay-čuy ẓax-a-t-ø-as to janx’/ see-IVCTr-3abs-pass kids cook-IVCTr-3abs-3erg det fish

[kapkw’tam] ẓe'[x’i] ẓaxtasi tø [janx’]

‘the kids were watching (her) when she cooked the fish’

As independently motivated for passives in §2, the passive morpheme -am/y binds the null pronominal in subject position of the matrix clause.

(110a) /k’ɑun-a-t-ø-am ẓay-čuy ẓax-a-t-ø-as to janx’/ see-IVCTr-3abs-pass kids cook-IVCTr-3abs-3erg det fish

[k’ɑun’tam] ẓe'[x’i] ẓaxtasi tø [janx’]

‘the kids were watching (her) when she cooked the fish’

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

(110c) [k’ɑun’at-ø-am] čfu’j pro]j pro] ẓaxtasis pro] j[øn]x’]

‘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.

(110d) [k’ɑun’tam] čfu’j pro]j pro] ẓaxtasis pro] j[øn]x’]

‘the kids were watching (her) when she 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 pronouns in matrix clauses follows from discourse binding.

(111) Intra-sentential

(referenee of pro in Complement clauses/Adjunct clauses) Generalized Control Theory

Matrix Clauses

(referenee 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 when beaten up Joe pro] yo’u]

‘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 pronouns 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 pronouns 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.

51
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 and consequent 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 3sg (subject) /-as/ and 5 conj (subject) /-as/ are identical in Sliammon. /-as/ is also easily confused 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 111 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 k*) 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 k* 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 (60).

§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:

1. The Single Nominal Constraint (as in Lushootseed)
2. The obligatory nature of Object Control relation
3. Differences in the syntactic behaviour of 11 persons versus 3rd persons
4. The relationship between Discourse Binding and Control

§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 language. I have approached the investigation of 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) conclusion regarding the apparent "morpho-syntactic mismatch" in Sliammon. Once we have reinterpreted "R-to-O" as Object Control, we are able to resolve this apparent morpho-syntactic mismatch. The Object Control analysis 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


<table>
<thead>
<tr>
<th>Person</th>
<th>Main Clause—full</th>
<th>Main Clause—reduced</th>
<th>Subordinate (conjugative)</th>
<th>Possessives</th>
</tr>
</thead>
<tbody>
<tr>
<td>1sg</td>
<td>čan, čαn</td>
<td>č</td>
<td>-α</td>
<td>-t (3sg)</td>
</tr>
<tr>
<td>2sg</td>
<td>čαx</td>
<td>čαx</td>
<td>-αx</td>
<td>α</td>
</tr>
<tr>
<td>1pl</td>
<td>čat</td>
<td>bt</td>
<td>-at</td>
<td>ms</td>
</tr>
<tr>
<td>2pl</td>
<td>čαp</td>
<td>čαp</td>
<td>-αp</td>
<td>-αp</td>
</tr>
<tr>
<td>3pl</td>
<td>Ø Intrns (3Abs)</td>
<td>Ø Intrns (3Abs)</td>
<td>-as</td>
<td>-s (3sg)</td>
</tr>
<tr>
<td></td>
<td>-as Trans (3Erg)</td>
<td>-as Trans (3Erg)</td>
<td>-as</td>
<td>-t (3pl)</td>
</tr>
</tbody>
</table>

Object Suffixes—Active paradigm

<table>
<thead>
<tr>
<th>Person</th>
<th>Control Transitive</th>
<th>Noncontrol Transitive</th>
<th>Causative</th>
</tr>
</thead>
<tbody>
<tr>
<td>1sg Obj</td>
<td>-0 (fused)</td>
<td>-nu-m§</td>
<td>-stum§</td>
</tr>
<tr>
<td>2sg Obj</td>
<td>-01 (fused)</td>
<td>-nu-mi</td>
<td>-stumi</td>
</tr>
<tr>
<td>1pl Obj</td>
<td>-t-um±</td>
<td>-nu-m±</td>
<td>-stum±</td>
</tr>
<tr>
<td>2pl Obj</td>
<td>-t-anapl</td>
<td>-n-anapl</td>
<td>-st-anapl</td>
</tr>
<tr>
<td>3 Obj</td>
<td>-t-0</td>
<td>-(n)αx-0</td>
<td>-staxw-0-n-sxw-0</td>
</tr>
</tbody>
</table>

Object Suffixes—Passive paradigm

<table>
<thead>
<tr>
<th>Person</th>
<th>Control Transitive</th>
<th>Noncontrol Transitive</th>
<th>Causative</th>
</tr>
</thead>
<tbody>
<tr>
<td>1sg Obj</td>
<td>-0ay (fused)</td>
<td>-nu-may</td>
<td>-st-may</td>
</tr>
<tr>
<td>2sg Obj</td>
<td>-01 (fused)</td>
<td>-nu-mi</td>
<td>-st-mi</td>
</tr>
<tr>
<td>1pl Obj</td>
<td>-t-uw</td>
<td>-nu-muw</td>
<td>-st-mow</td>
</tr>
<tr>
<td>2pl Obj</td>
<td>-t-anapl</td>
<td>-n-anapl</td>
<td>-st-anapl</td>
</tr>
<tr>
<td>3 Obj</td>
<td>-t-0</td>
<td>-nu-0 (main clause)</td>
<td>-st-0 (main clause)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-nag-0 (subord. clause)</td>
<td>-stag-0(subord. clause)</td>
</tr>
</tbody>
</table>

References
Davies, O.Jaeggli 1984. "Notes on Sliammon Syntax," ms., University of Victoria, Victoria, BC.


Matthewson, Lisa, Henry Davis and Dwight Gardiner. 1993. 'Coreference in Northern Interior Salish,' in Papers for the 28th International Conference on Salish and Neighboring Languages, University of Washington, Seattle.


---. 1996. 'Sliammon (Mainland Comox) Transitive Constructions,' in Proceedings from the 31st ICSNL, University of British Columbia.