Control constructions as a sub-class of nominalized clauses in Upriver Halkomelem[*]

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My goal in this paper is to provide syntactic evidence for a control construction in Upriver Halkomelem. This construction involves a nominalized clause complement that exhibits properties unique to this context. Taking obligatory coreference between a matrix and embedded argument as the initial indicator of a control construction, I show that two additional diagnostics also distinguish it from non-control nominalized clauses, namely, the inability of the nominalized clause to prepose and restrictions on the use of auxiliaries.

1   Introduction

The study of control has provided a rich and often hotly contested territory for exploring some of the fundamental properties of natural language. Topics such as clause structure and clausal embedding, anaphoric dependencies, and the morpho-syntax of inflectional categories are just a few of these. While an early focus on Germanic languages shaped theoretical approaches that centered on non-finite clauses, a burgeoning cross-linguistic study has shown that a variety of clause types are utilized throughout the languages of the world in instantiating the control relation. In this report, I examine the control relation as it is instantiated in Upriver Halkomelem (Central/Coast Salish: BC). The default form for embedding in this language is the nominalized clause, and as I show below, the control construction is among the contexts in which it is used. The purpose of this study is to show that the nominalized clause used in this construction is syntactically distinct from nominalized clauses that are *not* involved in a control context.

In section 2, I provide some theoretical background on control, using Halkomelem examples to highlight the salient properties. I then move on in the same section to introduce nominalized clauses, the embedded clause into which the control relation can be established in the language. Section 3 consists of the two further properties that uniquely identify control constructions, namely the inability of the nominalized clause to prepose, and restrictions on the availability

of auxiliaries in the embedded clause. The questions raised by my observations are posed as future research in section 4, while section 5 is the summary and conclusion.

## 2	Theoretical and empirical background

I briefly lay out in this section some basic theoretical assumptions about control constructions before going into the basic morpho-syntactic facts of Upriver Halkomelem nominalized clauses.

### 2.1	Theoretical background: what is control?

A substantial literature within the Principles and Parameters framework on the subject of control has yielded several classes of analyses. Perhaps the most fundamental distinction is between those that propose some sort of restructuring, whereby an embedded clause is argued to be or become a subjectless VP (cf. Wurmbrand 1998:Appendix 2), and those that argue for clausal projection(s) above the level of VP (e.g. Rosenbaum 1967, Chomsky 1973, Chomsky and Lasnik 1977, 1993, Hornstein 1999, Landau, 2000). Given that the control construction in Upriver Halkomelem involves the nominalized clause, which contains functional material that is generated outside of VP, I will not assume a restructuring analysis here. Rather, I take a bi-clausal structure as a starting point, represented schematically in the template below.

(1)	Bi-clausal control construction in Upriver Halkomelem

[matrix clause [nominalized clause]]

Throughout the class of analyses that assume a bi-clausal structure, the common thread is the dependence of the embedded clause on the matrix clause. The aspect of this dependence that has received the most attention, and for which the construction is named, is the obligatory coreference between a matrix and embedded argument, each bearing a theta-role assigned in their respective clause. The following Halkomelem examples illustrate this. Subject control is shown first - the matrix subject controls the reference of the embedded subject. This can be seen in the (b) examples, where different subject agreement in the matrix and embedded clause leads to ungrammaticality.

(2) a.	[**tsel**	t á-t	[kw'-**el**-s	xwemxál-em]]
	[**1sgS**	try-tr	[det$_h$-**1sgposs**-nom	run-itr]]
	I tried to run.

  b.	*[**tsel**	t á-t	[kw'-s-**es**	xwemxál-em]]
	[**1sgS**	try-tr	[det$_h$-nom-**3poss**	run-itr]]
	~ I tried for him to run.

(3) a. [**tsel** iyó-thet [kw'-**el**-s xwemxál-em]]
    [**1sgS** start-refl [det_h-**1sgposs**-nom run-itr]]
    I started running/to run.

  b. *[**tsel** iyó-thet [kw'-s-**es** xwemxál-em]]
    [**1sgS** start-refl [det_h-nom-**3poss** run-itr]]
    ~ I started him running.

These next examples show object control, where the matrix object is the controller. Attempting to use possessive agreement that could not match up with the matrix object results in ungrammaticality, as shown in the (b) examples.

(4) a. [tsel tseshá-t **te** **swíyeqe** [kw'-s lám-**s**]]
    [1sgS order-tr **det** **man** [det_h-nom go-**3poss**]]
    I told the man to go.

  b. *[tsel tseshá-t **te** **swíyeqe** [kw'-**á'**-s lám]]
    [1sgS order-tr **det** **man** [det_h-**2sgposs**-nom go]]
    ~ I told the man for you to go.

(5) a. [tsel híqw-t **the** **slháli** [kw'-s
    [1sgS invite-tr **det_f** **woman** [det_h-nom
       mi-**s** ye ímex-ósem]]
       come-**3poss** asp walk-??]]
    I invited the woman to go for a walk.

  b. *[tsel híqw-t **the** **slháli** [kw'-**a'**-s
    [1sgS invite-tr **det_f** **woman** [det_h-**2sgposs**-nom
       ye ímex-ósem]]
       asp walk-??]]
    ~ I invited the woman for you to walk

Although there are many accounts of obligatory control that treat it as a fundamentally semantic phenomena (e.g. Culicover and Wilkins 1986, Williams 1994, Culicover and Jackendoff 2001), I approach the discussion from a syntactic perspective. That is to say, I am interested in the syntactic consequences of this relation. The two diagnostics presented in section 3 justify this approach, showing that both in terms of external and internal syntax, control constructions can be distinguished from non-control constructions.

2.2 Empirical background: what are nominalized clauses?

Nominalized clauses, one of four clause types in Halkomelem, are the default form for embedding in the language. The other three types - indicative,

subjunctive, and relative - differ from nominalized clauses and each other in terms of both internal and external syntax. As its name indicates, the construction under review displays both nominal and clausal properties. Like the other clauses, nominalized clauses admit the full range of transitive morphology on the predicate, and the same object agreement. Auxiliaries are also possible in nominalized clauses, though one of the diagnostics presented in this paper addresses restrictions on their use in control contexts. On the other hand, this clause type is distinguished from indicative, subjunctive, and most relative clauses by the presence of a nominalizer, use of the possessive agreement morphology to index the subject, and the overwhelming tendency to be introduced by a determiner, all characteristic of nominal projections. The following table summarizes the distribution of nominal and clausal properties.

(6)   Properties of nominalized clauses

Nominal	Clausal
Introduced by determiner	Auxiliaries possible
Possessive agreement for subjects.	Same object agreement as indicative clauses
Nominalizer	Transitive morphology

There are some robust generalizations that can be stated about the distribution of the pieces laid out in (6). The determiner must precede the nominalizer, which in turn must precede the auxiliaries, if any are present. Assuming that a nominalized clause contains a verbal projection line at least as high as the auxiliary, the following linear template captures this.

(7)   Linear template for UH nominalized clause

$[_{DP}$ det$_h$ $[_{NP}$ nom $[_{IP}$ aux$_l$ $[_{AspP}$ aux$_d$ $[_{V/AP}$ predicate [...comp...]]]]]]^1

        The initial element in this template is the hypothetical determiner, the only one available in the Upriver Halkomelem nominalized clause. However, the examples below show that the determiner can be preceded by elements like *tl'o* (a focus marker), and *yelh* or *qeyalh*, which establish a temporal/aspectual relation between the matrix and embedded clauses.

(8)   tsel   xwemá-x   te   xálh
        1sgS   open-tr   det   door
                  [**tl'e**-kw'-s-es   kw'ákw'es]
                  [**foc**-det$_h$-nom-3poss   get.hot]
        I opened the door because it got hot

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1   The labels for the different constituents should be taken as preliminary suggestions.

(9)　　tsel　　　le　　　　 áyel　　[**yélh**-0-s-es　　　　　xwemá-x-es
　　　　1sgS　　aux_d　　leave　[**inc**-det_n-nom-3poss　open-tr-3erg
　　　　　　　　te　　　　pús　　te　　　xálh]
　　　　　　　　det　　　cat　　det　　door]
　　　　I left before the cat opened the door

(10)　　ch-úlh　　　　　　me　　　áyel　　[**qeyálh**-0-s-es
　　　　1sgS-already　　aux_d　　leave　[**before**-det_n-nom-3poss
　　　　　　　　　me　　　lhémexw]
　　　　　　　　　aux_d　　rain]
　　　　I left before it started raining

The question raised by these examples is whether we ought to add another layer to the clause or insert these elements into the structure as it is. In other words, should they be treated as modifiers or heads, as shown in the partial templates below.

(11) a.　　[_NC_ [*tl'o/yelh/qeyalh* det_h] [_?P_ nom [_IP_ ...　　　- modifier

　　　b.　　[_XP_ *tl'o/yelh/qeyalh* [_NC_ det_h [_?P_ nom [_IP_ ...　　　- head

These elements do not add anything to the interpretation of the utterance that could not have been gathered from context – the relevant interpretations are available in their absence. But those interpretations are obligatory when the elements *are* present. Their presence does not seem to alter the distribution of the clause either. These observations encourage treating them as modifiers, rather than as heads. However, they are also apparently capable of appearing as predicates which take nominalized clause complements, as shown below.

(12)　　tl'ó-0-s-es　　　　　　　　me　　　q'ól-thet　　　tútl'ò
　　　　foc-det_n-nom-3poss　　come　　return-refl　　3emph
　　　　That's why he came back

(13)　　yélh-0-al-s　　　　　　　　a　　　la　　　kw'ekw'í
　　　　inc-det_n-1sgposs-nom　　fact　　aux_d　　climb.cont
　　　　I started climbing.

(14)　　qeyálh-0-s-es　　　　　　　　la　　　t'óqw'
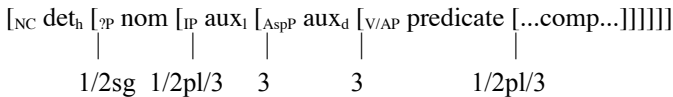　　　　before-det_n-nom-3poss　　aux_d　　go.home
　　　　He just went home.

If indeed the adverbials are here acting as predicates, that would mean that they are at least able to appear as heads in their own right. I will assume for the

moment that they are in each case what they appear to be – modifiers in the contexts represented in (8-10) and heads in those in (12-14).

Kroeber (1999:100) apparently considers the nominalizer in this context[2] to be a clitic, attaching to the left-most element of the verbal projection. I believe that at least for Upriver Halkomelem, the nominalizer's position does not vary, but is instead base-generated at it's left-most surface position regardless of the presence of overt material between it and the VP. This is consistent with the facts and allows for the simplest statement about its distribution. I am assuming for the moment that the nominalizer heads an NP, this to accommodate the internal facts such as possessive agreement and selection by a determiner. I am not, however, committed to this analysis. I am, for instance, open to the idea that the projection headed by the nominalizer is higher up along the nominal projection line. Assuming, as argued in Schueler (2004), that the nominal and verbal projection lines are parallel structures, and that nominalization maps from a position in the verbal line to the corresponding one in the nominal line, the presence of the upper, locative auxiliaries in Upriver Halkomelem nominalized clauses suggests that the nominalizer attaches above a fair amount of verbal structure and the result is one of the larger nominal constituents.

The distribution of possessive agreement is more complicated than the other pieces, as it is variable across person and number splits. In linear terms, the distributions are as follows (cf. Galloway 1993:179-181, Kroeber 1999:102-103). 1st and 2nd singular agreement appears between the nominalizer and the determiner. 1st and 2nd plural agreement prefers to encliticize to the predicate but can also appear encliticized to the nominalizer. 3rd person agreement, which is unspecified for number, is the most mobile of the lot, able to encliticize to the either auxiliary if present, as well as either position available to 1st/2nd pl. Laying this out on the template just given yields the following picture.

(15)   Location of possessive agreement by person/number

$$[_{NC} \text{ det}_h \ [_{?P} \text{ nom } [_{IP} \text{ aux}_l \ [_{AspP} \text{ aux}_d \ [_{V/AP} \text{ predicate } [...comp...]]]]]]$$
$$\quad\quad | \quad\quad\quad | \quad\quad\quad | \quad\quad\quad\quad | \quad\quad\quad\quad\quad |$$
$$\quad 1/2sg \ \ 1/2pl/3 \quad 3 \quad\quad\quad 3 \quad\quad\quad\quad 1/2pl/3$$

I do not have anything constructive to say about how these facts can be accounted for. While I assume there is some mechanism responsible for placing the agreement clitics, I am not prepared to speculate on the nature of that mechanism.

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2   The nominalizer involved in a subset of relative clauses has a different distribution, unable to appear to the left of the leftmost set of auxiliaries, and is therefore given a different treatment.

3   Two diagnostics for control constructions

This section is for the main empirical contribution of the paper. The first diagnostic I discuss is the inability of control nominalized clauses to prepose, or occur to the left of the predicate complex of the matrix clause. The second diagnostic involves the sensitivity of embedded auxiliaries to the control/non-control distinction.

3.1   The preposing diagnostic

The examples below show that, unlike nominalized clauses used as complements of non-control predicates or as a modifier (temporal, rationale/purpose, etc.), those that are the complement of a control predicate are unable to occur to at the left edge of the sentence.

(16)   [$_{NC}$ kw'-el-s   t'ít'el-em]   éy-st-exw-tsel
          [$_{NC}$ det$_h$-1sgposs-nom   sing.cont-itr]   good-caus-3O-1sgS
          I like singing
                  cf. éystexwtsel [$_{NC}$ kw'els t'ít'elem]

(17)   [$_{NC}$ kw'-a'-s   me   kwetxwíl-em]
          [$_{NC}$ det$_h$-2sgposs-nom   aux$_d$ enter-itr]
                          tsel   ts'lhám-eth-óme
                          1sgs hear-tr-2sgO
          I heard you come in
                  cf. tsel ts'lhámethóme [$_{NC}$ kw'a's me kwetxwílem]

(18)   [$_{NC}$ kw'-a'-s   a   xwexwá]   tsel   t'ám-et
          [$_{NC}$ det$_h$-2sgposs-nom   fact   hungry]   1sgS   guess-tr
          I guessed you were hungry
                  cf. tsel t'ámet [$_{NC}$ kw'a's a xwexwá]

In each of these three examples, the nominalized clause occurs to the left of the matrix predicate. The following examples show that the same is not true in control contexts.

(19)   *[$_{NC}$ kw'-el-s   a   le   áyel]   tsel   t'á-t
          [$_{NC}$ det$_h$-1sgposs-nom   fact   aux$_d$ leave]   1sgS   try-tr
          ~ I tried to leave
                  cf. tsel t'át [$_{NC}$ kw'els a le áyel]

(20)   *[$_{NC}$ kw'-el-s   ímex]   tsel   iyó-thet
          [$_{NC}$ det$_h$-1sgposs-nom   walk   1sgS   start-refl
          ~ I started to walk
                  cf. tsel iyóthet [$_{NC}$ kw'els ímex]

(21) *[$_{NC}$ kw'-s   le-s   áyél   tútl'ò] tsel   tsesh-át
      [$_{NC}$ det$_h$-nom   aux$_d$-3poss   leave 3sg]   1sgS   order-tr
      ~ I ordered him to leave
              cf. tsel tseshát [$_{NC}$ kw's les áyél tútl'ò]

This same diagnostic was shown in Jacobs (1992:51,61-62) to divide nominalized clauses in Squamish (Coast Salish) into two classes as well - complements and adjuncts - where only the latter are able to prepose. Only a subset of the complement NCs are sensitive to this diagnostic in Upriver Halkomelem.

      This restriction can be understood as a consequence of the dependency relations between the embedded and matrix clauses. As already pointed out, the embedded subject is obligatorily coreferent with a matrix argument, and evidence will be presented below suggesting that embedded auxiliaries are dependent on the matrix auxiliary. Both of these relations are indicative of a tighter, asymmetrical relation between clauses than is found in non-control cases. The distributional restriction is in line with Williams (1997) General Pattern of Anaphoric Dependence, which states roughly that a dependent term must be either to the right of or subordinate to its antecedent.

3.2   Sensitivity of auxiliaries

      The data for this section show a far more subtle discrimination than the preposing test. Upriver Halkomelem's locative auxiliaries[3], *?i* and *li*, can freely appear in nominalized clauses when they are embedded under non-control predicates. It has been pointed out that these auxiliaries are implicated in the temporal interpretation of the indicative clauses in which they occur (Wiltschko 2006)[4]. Wiltschko also points out, in the same article, that the presence of auxiliaries in embedded nominalized clauses has a related effect on interpretation. This can be seen in the examples below.

(22)   tsel   mélq-eles   kw'-el-s   í-lh
       1sgS   forget-lct   det$_h$-1sgposs-nom   aux$_l$-past
               tl éqwel-t   te   héyqw
               put.out-tr   det   fire
       I forgot **that** I put out the fire

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3   These are to be distinguished from the directional auxiliaries, *lam* and *ami*. They are phonologically stronger than the locative auxiliaries, and have a different distribution, as shown in the template in (7) above.

4   The exact mechanism by which this is achieved is not relevant to the present discussion, but is interesting in its own right.

(23) tsel   mélq-eles   kw'-el-s   tl éqwel-t
     1sgS   forget-lct   det$_h$-1sgposs-nom   put.out-tr
             te   héyqw
             det   fire
     I forgot **to** put out the fire

In the first example, the presence of an auxiliary results in a factive interpretation, with an embedded event that took place at a point in time. Its absence in the second however, results in an embedded event that *has not taken place* and so is not anchored in time/space.

       Given the observation in section 2.1 that embedded clauses have been found cross-linguistically to display temporal dependence on the matrix clause in control contexts, I predict that the presence of auxiliaries ought to be restricted in those nominalized clauses. The following data show that this is indeed the case. In the first set, which were elicited first, the auxiliaries are simply not allowed.

(24) *tsel   t á-t   kw'-el-s   lí   xwemxál-em
     1sgS   try-tr   det$_h$-1sgposs-nom   aux$_l$ run-itr
     ~ I tried to run[5]
             cf. tsel t át kw'els xwemxálem

(25) *tsel   iyó-thet   kw'-el-s   í-lh
     1sgS   start-refl   det$_h$-1sgposs-nom   aux$_l$-past
             xwemxál-em
             run-itr
     ~ I started running
             cf. tsel iyóthet kw'els xwemxálem

However, on revisiting the issue in further elicitation, a more subtle picture emerged. This time, auxiliaries *were* allowed, but, crucially for my story, not both of them. The proximate auxiliary is able to appear, as shown in these examples.

(26) tsel   t á-t   kw'-el-s   í-lh   lép-ex
     1sgS   try-tr   det$_h$-1sgposs-nom   aux$_l$-past   eat-tr
     I tried to eat it before

(27) tsel   tsésha-th-óme   kw'-á'-s
     1sgS   order-tr-2sgO   det$_h$-2sgposs-nom
             í-lh   ítet
             aux$_l$-past   sleep
     I was telling you to go to sleep

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5   A version with ilh was accepted during this elicitation, and given an emphatic
     interpretation (I DID try to run).

The distal auxiliary though, is still banned from this construction.

(28)   * tsel   iyó-thet   kw'-el-s
          1sgS   start-refl   comp-1sgposs-nom
                     lí   xwemxál-em
                     aux_1 run-itr
          I just started running

There are two things to point out with regards to these examples. The first is that the auxiliary inventory is still restricted in control contexts. So in terms of availability, auxiliaries provide a diagnostic for distinguishing between control and non-control contexts.

       The second point to make has to do with the apparent lack of an effect on interpretation. Recall, from examples (22, 23), that there was a significant difference in the interpretations of the embedded clause, conditioned by the presence/absence of an auxiliary. Such minimal pairs do not exist in control contexts - where the auxiliary is permitted, it has no discernible impact on the interpretation of the embedded clause. Once again, the control case is distinct from the non-control case.

4   Future research

       This study is still lacking a formal analysis. My goal is to devise one that will tie these three facts together   the obligatory coreference of two arguments across a (nominalized) clause boundary, the presence of auxiliaries restricted to the proximate, and the inability of these nominalized clauses to prepose. As was mentioned in the theoretical background section, control constructions involve an embedded clause that is dependent in some ways on the matrix clause. My working hypothesis, then, is that each of these three facts is a manifestation of that dependence.

       Consider first the auxiliaries. As discussed in Ritter and Wiltschko (to appear)[6], in certain matrix contexts, the proximate auxiliary gives rise to present tense interpretations. It in effect says that the event described takes place 'here', understood temporally. Conversely, the distal auxiliary gives rise to non-present interpretations - the event happened 'there'. The auxiliary picture in control contexts can be explained by assuming that the embedded auxiliary is anaphoric on the matrix clause. On this hypothesis, proximate and distal would be determined in relation to the matrix clause setting. If the location of the event in a control nominalized clause is dependent on the location of the matrix event (in time or space, I think they are extensionally equivalent in this case), then the prediction must be that only the proximate auxiliary is possible. Of course there are other pieces of evidence necessary to cement this claim. The most pressing need is to establish the generalizations for those cases of embedded nominalized clauses where *both* auxiliaries are possible. The very clear prediction is that if

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6   Suttles (2004:508) raises a similar point for Musqueam, a sub-dialect of Downriver Halkomelem.

the events of each clause have the same location, the distal auxiliary should not be possible, and that if they have a different location, the proximate auxiliary should not be possible. I do not have the data at the moment to verify this however.

Aside from the already dismissed restructuring family of accounts, all of the syntactic accounts of control involve a dependency relation between a matrix and an embedded argument position. Whether this dependence is characterized in terms of movement or agreement, it uniformly involves the structural subordination of the clause containing the dependent term to the clause containing its antecedent. Assuming the argument presented above for anaphoric IP domain material in just these cases, there are now two reasons for maintaining a particular syntactic configuration between the matrix and embedded clauses. Whatever the mechanism is that enforces this configuration, it is possibly responsible for ensuring that the nominalized clause cannot prepose in the context of control.

5   Conclusion

In this paper, I have shown that a cluster of three properties combine to distinguish a particular construction from superficially similar ones. I have shown that cases identified as control in virtue of an obligatory coreference relation between two theta-role bearing arguments across a clause boundary display two additional characteristics unique to that context. The first of these was a straightforwardly syntactic constraint on the ability of nominalized clauses to occur to the left of the predicate - those involved in a control construction can not, while nominalized clauses elsewhere are free to do so. It was suggested that this could be a reflex of a general constraint to keep a dependent term (here, the controlled argument or possibly the embedded auxiliary) to the right of or below its antecedent (the matrix controller or auxiliary). The second is a more subtle arrangement, involving the role and place of auxiliaries in control vs. non-control contexts. It was shown that, when they are allowed at all, the only auxiliary permitted in a control nominalized clause is the proximate auxiliary. This in itself distinguishes control from non-control contexts, and so achieves its purpose with respect to the aims set out at the beginning of the paper.

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