Argument linking and passives in Halkomelem

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We discuss evidence in Halkomelem that supports the hypothesis put forward by Manning and Sag (1999) that a universal passive argument structure (ARG-ST) is complex and has two a-subjects. The Halkomelem passive data show that two notions of subject are essential for capturing control phenomena. One set of constructions—motion auxiliaries, desideratives, and reflexive causatives—involve linking to the internal a-subject. One construction—cognitive verb control—links to either the highest a-subject or the internal a-subject. Similar conclusions have been drawn for data from Russian (Perlmutter 1984), Philippine languages (Schachter 1984), and other languages of the world. As Manning and Sag (1998) point out, one does not have to draw the conclusion that passive must be given a multilevel syntactic analysis from such data. Rather, their analysis of passive, which posits a complex argument structure, easily accounts for Halkomelem.

1 Introduction

Halkomelem, a Coast Salish language of British Columbia, supports the hypothesis put forward by Manning and Sag (1999) that a universal passive argument structure is complex and has two a-subjects, roughly of the form in (1).[1] We present arguments that morphological and syntactic control phenomena in Halkomelem can be described by saying that an a-subject—i.e., the highest argument in a list—is accessible.[2]

(1) $\langle NP_i, \langle NP, PRO_i \rangle \oplus L \rangle$

We first examine transitivity and passives in Halkomelem. While the status of the patient or notional object of the Halkomelem passive is unclear, we argue that it is some species of subject and probably a syntactic subject. We will also show that the notional object of the Halkomelem passive is not a syntactic subject, based on case and extraction facts. Various syntactic and morphological constructions involving control suggest however that the passive agent is nevertheless an argument-structure subject or *a-subject* (i.e., highest argument). We therefore propose an account along the lines of Manning and Sag's (1999) universal passive, in which the passive agent is an a-subject of an embedded argument structure.

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[2] The sorts of syntactic control structures found in languages such as English are largely not present in Halkomelem. In the single case of syntactic control discussed below, either a-subject can be linked.

2 The Halkomelem Passive

Halkomelem passives are based on transitive verbs. Transitivity is morphologically marked and passive morphology is suffixed to transitive bases. Transitive clauses contain a verb that is morphologically marked with a transitive suffix. These include, *inter alia*, the general transitive suffix *-t* in (2)a and the limited control transitive suffix *–nəxʷ* in (3)a. Their passive counterparts appear below them in the (b) examples.

(2) *-t* Transitive Verb

a. Active Verb

ni?	q̓ʷaqʷ-**ət**-əs	kʷθə	sx̌i?x̌qəɬ	ɬə	sɬeni?	?ə	kʷθə
aux	club-**tr**-3erg	art	child	art	woman	obl	art

sq̓əməl̓.[3]
paddle

'The child clubbed the woman with the paddle (on purpose).'

b. Passive Verb

ni?	q̓ʷaqʷ-**ət-əm**	?ə	kʷθə	sx̌i?x̌qəɬ	ɬə	sɬeni?	?ə
aux	club-**tr-pas**	obl	art	child	art	woman	obl

kʷθə sq̓əməl̓.
art paddle

'The woman was clubbed by the child with the paddle (on purpose).'

(3) *-nəxʷ* Limited Control Transitive Verb

a. Active Verb

ni?	q̓ʷəqʷ-**nəxʷ**-əs	kʷθə	sx̌i?x̌qəɬ	ɬə	sɬeni?	?ə
aux	club-**lctr**-3erg	art	child	art	woman	obl

kʷθə sq̓əməl̓.
art paddle

'The child accidentally clubbed the woman with the paddle.'

b. Passive Verb

ni?	q̓ʷəqʷ-**n-əm**	?ə	kʷθə	sx̌i?x̌qəɬ	ɬə	sɬeni?	?ə
aux	club-**lctr-pas**	obl	art	child	art	woman	obl

kʷθə sq̓əməl̓.
art paddle

'The woman was accidentally clubbed by the child with the paddle.'

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[3]The following are the abbreviations used in glosses.

art = article
aux = auxiliary
ap = antipassive
cont = continuative (imperfective) aspect
des = desiderative
erg = ergative suffix
fut = future
lctr = limited control transitive
lnk = linker
mid = middle
nom = nominalizer
obj = object
obl = oblique case marker
pas = passive
pl = plural
pos = possessor
ques = question
sg = singular
sub = subject
tr = transitive

Halkomelem head-marks transitive verbs for object, as we discuss later, and we propose that only transitive verbs have the valence feature OBJ(ect) as well as subject.[4]

(4) [*transitive-verb*] → [OBJ NP[CASE: straight]]

Only subjects and objects are in the straight case (unmarked). This contrasts with oblique case, which is flagged by the oblique particle. See the examples in (3).

We assume that canonical mapping from argument structure to valence features in Halkomelem maps the first element on the argument structure list to subject, the next (if it is an NP) to object and the remainder to COMPS. Thus transitive verbs will have the following specifications, most of which follow from general principles.

(5) Mapping to Valence Features in Transitive Constructions

$$\begin{bmatrix} \text{SUBJ} & \langle [1]\text{NP[case: straight]} \rangle \\ \text{OBJ} & \langle [2]\text{NP[case: straight]} \rangle \\ \text{COMPS} & \text{L} \\ \text{ARG-ST} & \langle [1], [2] \rangle \oplus \text{L} \end{bmatrix}$$

Both subjects and objects are assigned straight case, which is unmarked. NPs in COMPS will be assigned oblique case, which is marked by an oblique particle.

We provide here a lexical account of the Halkomelem passive in which bases of type *inflected-transitive-verb* have correspondents of type *passive-verb*, a point to which we return in the penultimate section. The syntactic status of Halkomelem passive agents and patients will be explored shortly. In anticipation of this, we make the conjecture that the passive agent is not really a syntactic argument when it is present, but an adjunct. We state this in the following relationship.[5]

[4]Instead, we could assume that all verbs assign direct case to their subject and only transitive verbs assign direct case the first element on COMPs list, a point to which we return below. Thus a (surface) object is the first NP on the COMPS list.

[5]We borrow the feature labels 'SOURCE' and 'RESULT' from Manning and Sag (1999) although we use the type 'passive-reln' rather than 'passive-drv' to emphasize the fact that we view this as a relationship between types rather than a derivation.

(6) Halkomelem Passive Lexical Rule

$$\left[\begin{array}{ll} \textit{pass-reln} & \\ \text{RESULT} & \left[\begin{array}{ll} \textit{pas-vb} & \\ \text{MORPH} & \left[\begin{array}{ll} \text{AFF} & \left[\begin{array}{ll} \textit{pas-suf} & \\ \text{FORM} & f_{pas}([1]) \end{array}\right] \\ \text{STEM} & [2] \end{array}\right] \\ \text{SYNSEM} & \left[\text{ARG-ST} \quad <[4]_j, \ <\text{pro}_i, \text{pro}_j> \ \oplus \ \text{L}>\right] \end{array}\right] \\ \text{SOURCE} & \left[\begin{array}{ll} \textit{infl-trans-vb} & \\ \text{MORPH} & \left[\begin{array}{ll} \text{AFF} & \left[\begin{array}{ll} \textit{trans-suf} & \\ \text{FORM} & [1] \end{array}\right] \\ \text{STEM} & [2] \end{array}\right] \\ \text{SYNSEM} & \left[\begin{array}{l} \text{OBJ} \\ \text{ARG-ST} \quad <[3]_i, [4]> \ \oplus \ \text{L} \end{array}\right] \end{array}\right] \end{array}\right]$$

The rule declares the existence of verbs of type *passive-verb*, a subtype of *intransitive-verb*, with argument structures roughly of the form <b, <a, b>>, the a-object of the transitive verb is promoted in passives to a-subject of the higher argument structure in a complex argument structure. We assume that the OBJ(ect) feature does not appear in the passive (as we assume intransitives do not have this feature). The phonological form of the passive morphology is a function on the transitive suffix (including object inflection), mapping it to the corresponding passive. We turn to the implications of this later, when we consider the status of passive 'patients' and first/second person marking.[6]

Turning briefly to the mapping from argument structure to grammatical roles, we assume that all roles in a complex argument structure are mapped unless they are blocked by being assigned special pronominal status. The internal a-object in the output of the passive is designated as 'pro', by which we mean that the role does not map. These can be interpreted as some sort of noncanonical type NP. We discuss this further in the penultimate section.

The syntactic status of passive 'patients' is problematic and we discuss below at some length the reasons why this is so. We assume in the end that the derived a-subject is mapped to subject.

(7) Halkomelem Passives and Mapping, Assuming Patients are Subjects

$$\left[\begin{array}{ll} \textit{pas-vb} & \\ \text{SUBJ} & <[1]> \\ \text{COMPS} & [2] \\ \text{ARG-ST} & <[1]_i, \ <\text{pro}, \text{pro}_i> \ \oplus \ [2]> \end{array}\right]$$

[6]The phonological form of the lexical item will be the concatenation of the stem and the affix in both the isource and the result.

The alternative is that patients do not advance in terms of surface grammatical relations. If so, we assume that there is a dummy subject, which we represent here as an empty list, and the 'outside' a-subject maps to object, in which case we must somehow view Halkomelem passives as transitives, under the assumption that the OBJ feature is restricted to transitives.

(8) Halkomelem Passives and Mapping, Assuming Patients are Objects (Alternate Account)

$$\begin{bmatrix} pas\text{-}vb & \\ \text{SUBJ} & < empty - list > \\ \text{OBJ} & < [1] > \\ \text{COMPS} & [2] \\ \text{ARG-ST} & < [1]_i, \ < \text{pro}, \ \text{pro}_i > \ \oplus \ [2] > \end{bmatrix}$$

But in either account, we propose (i) that Halkomelem passive patients are derived a-subjects, the highest element in the matrix argument structure, and (ii) passive agents are a-subjects of an embedded argument structure.[7]

3 Transitive and Intransitive Clauses

While our claim that Halkomelem passives are syntactically intransitive is unsurprising, it seems appropriate to discuss criteria for determining transitivity in Halkomelem before turning to the more central problem, the syntactic roles of Halkomelem passive agents and patients.

3.1 Transitive and Intransitive Marking

The following classes of verbs show transitive or intransitive marking. This can be contrasted with their syntactic status, as all are syntactically intransitive.

	Transitive	Intransitive
passive	yes	yes
reflexive	yes	no
reciprocal	yes	no
antipassive	no	yes
middle	no	yes

We wish to underscore several points. First, the passive suffix *–m* is phonologically identical to the middle suffix which has various functions, all of them intransitive (Gerdts and Hukari 1998). In addition, the Pan-Salish historical evidence suggests that the Salish passive is derived from the middle. Thus the passive is a detransitivized transitive. Second, only the passive shows both transitive and intransitive morphological affixes.

[7]See Gerdts (1993, 1995a) for Mapping Theory analyses of the Halkomelem passive.

3.2 If it is transitive, third person subject is marked (3erg).

Halkomelem is a split ergative language, as described in Gerdts (1988a). In a transitive main clause with a third person subject, the verb will be suffixed with the third person ergative marker *-əs*, as seen in the above examples and in (9). In contrast, third person subjects in main clause intransitives do not determine agreement.The antipassive verb in (10) is intransitive.

(9) Transitives: Third Ergative Suffix *-əs*

ni?	q̓ʷəl-ət-əs	[tθə	swəy̓qeʔ]	[tθə	sce:łtən].
aux	club-tr-3erg	art	man	art	salmon

'The man barbecued the salmon.'

(10) Intransitives: No Third Person Subject Marking

ni?	q̓ʷəl-əm	[tθə	swəy̓qeʔ]	[**ʔə**	k̓ʷ	sce:łtən].
aux	club-mid	art	man	**obl**	art	salmon

'The man barbecued some salmon.'

3.3 Case. Transitive verbs license straight case direct object NPs.

Also, only transitive verbs license a direct object NP in straight case, which is unmarked, as opposed to oblique case with the oblique marker *ʔə*. Subjects and objects of transitive constructions are in the straight case (unmarked), as in (9). Only subjects of intransitive constructions are in the straight case; notional objects are oblique, as in (10).

4 Passive Agents and Patients

Returning to the status of passive agents and patients, we consider whether the former are syntactic subjects whether the latter are syntactic subjects or objects, cf. (7) vs (8). We show that passive agents are not syntactic subjects, but the status of passive patients is less obvious.

4.1 Case: Straight vs. Oblique

As noted above, subjects and objects are straight case while notional objects of intransitives are oblique, as are NPs playing other roles. As we have seen in sentences such as (2)b-(3)b, the passive patient is straight. Case is not helpful in determining the mapping of passive patients, since straight case is consistent with the patient being either a subject or an object. Passive agents, on the other hand, are introduced by the oblique marker, as in (11)b vs. (11)a.

(11) a. (Active) Transitive Clause

ni?	pas-ət-əs	[tθə	swəy̓qeʔ]	[tθə	speʔəθ].
aux	hit-tr-3erg	art	man	art	bear

'The man hit the bear.'

b. Passive Clause

ni?	pas-ət-əm	[**ʔə**	tθə	swəy̓qeʔ]	[tθə	speʔəθ].
aux	hit-tr-pas	**obl**	art	man	art	bear

'The bear was hit by the man.'

The fact that passive agents are oblique suggests they are not syntactic subjects.

4.2 Extraction: Relative Clause Formation

Extraction in Halkomelem is discussed in Gerdts (1988a), Hukari (1976, 1977, 1979, 1980). Subjects of intransitives and objects of transitives are accessible to relativization without special marking.

(12) Intransitive Clause

ni?	ši?šḵʷaṁ	tθə	cq̓iǩ	spe?əθ
aux	swim(cont)	art	black	bear

'The black bear is swimming.'

(13) Intransitive Subject Extraction: Unmarked

tθə	cq̓iǩ	spe?əθ	[ni?	ši?šḵʷaṁ]
art	black	bear	aux	swim(cont)

'the black bear that is swimming'

(9) Transitive Clause

ni?	q̓ʷəl-ət-əs	tθə	swəy̓qe?	tθə	sce:łtən.
aux	barbecue-tr-3erg	art	man	art	salmon

'The man barbecued the salmon.'

(14) Transitive Object Extraction: Unmarked

tθə	sce:łtən	[ni?	q̓ʷəl-ət-əs	tθə	swəy̓qe?]
art	salmon	aux	barbecue-tr-3erg	art	man

'the salmon that the man barbecued'

Subjects of transitives are extracted without special morphology except that subject/ergative markers (e.g., the suffix *-əs*) are omitted (i.e., anti-agreement).

(15) Transitive Subject Extraction: No Ergative/Subject Marker

tθə	swəy̓qe?	[ni?	q̓ʷəl-ət	tθə	sce:łtən]
art	man	aux	barbecue-tr-**Ø**	art	salmon

'the man that barbecued the salmon'

In contrast, oblique objects (oblique case) can only be extracted via nominalization. The nominalizer *s-* is prefixed to the verb, and the subject is represented by a possessive affix *-s* for third person:

(10) Intransitive (Antipassive) Clause with Oblique NP

ni?	q̓ʷəl-əm	tθə	swəy̓qe?	?ə	k̓ʷ	sce:łtən.
aux	club-mid	art	man	obl	art	salmon

'The man barbecued some salmon.'

(16) Oblique Object Extraction: Nominalization and Possessor Marking for Subject

kʷθə	sce:łtən	[ni?	**s-q̓ʷəl-əm-s**	tθə	swəy̓qe?]
art	salmon	aux	**nom**-barbecue-mid-**3pos**	art	man

'the salmon that the man barbecued'

Passive 'patients' extract without special marking. This is unsurprising under either of two hypotheses: the patient is a surface subject or it is a surface object.

(17) Passive Clause

ni?	q̓ʷaqʷ-ət-əm	łə	słeni?	?ə	kʷθə	sq̓əmə̓l.
aux	club-tr-pas	art	woman	obl	art	paddle

'The woman was clubbed with the paddle.'

(18) Passive Patient Extraction

słeni?	łə	ni?	q̓ʷaqʷ-ət-əm	?ə	kʷθə	sq̓əmə̓l.
woman	art	aux	club-tr-pas	obl	art	paddle

'It was a woman that was was clubbed with the paddle (on purpose).'

Note that passive agents do not extract by any means, which suggests that they are not subjects of any sort and, in fact, that they are nonarguments.

(19) Passive Clause

ni?	pən-ət-əm	?ə	łə	słeni?	kʷθə	sqewθ.
aux	plant-tr-pas	obl	art	woman	art	potato

'The potatoes were planted by the woman.'

(20) Passive Agents Do Not Extract

not:	*słeni?	łə	ni?	(s-/š-)pən-ət-əm	kʷθə	sqewθ.
	woman	art	aux	nom/nom-plant-tr-pas	art	potato

for: It was a woman who the potatoes were planted by.

4.3 Word Order

In brief, word order is not conclusive in determining the syntactic role of passive patients, although it tends to support the claim that passive patients are not subjects. For the most part, Halkomelem is VSO. The order of oblique NPs with respect to direct case NPs is quite optional. Generally, when two direct NPs are present in a clause, the subject precedes the object although some speakers permit the order VOS particularly when the object is inanimate. The order of agent and patient in a passive clause is free and given that some speakers do not accept VOS, the optionality of word order could be taken as evidence that passive agents are not subjects.

(11)b Passive Clause: Agent Preceding Patient

ni?	pas-ət-əm	?ə	tθə	swəy̓qe?	tθə	spe?əθ.
aux	hit-tr-pas	obl	art	man	art	bear

'The bear was hit by the man.'

(21) Passive Clause: Patient Preceding Agent

ni?	pas-ət-əm	t^{θ}ə	spe?əθ	?ə	t^{θ}ə	swəy̓qe?.
aux	hit-tr-pas	art	bear	obl	art	man

'The bear was hit by the man.'

4.4 Summary of 4.1-4.3.

The fact that passive agents are in the oblique case and that they are not targets for extraction suggest they are not subjects, as does the word order freedom of agents and patients. The evidence thus far does not choose between the competing analyses for the syntactic status of Halkomelem passive patients as represented in (8) vs. (9) as our tests do not distinguish between two sorts of absolutives: transitive objects and intransitive subjects. We concentrate on the status of passive patients for the remainder of this section.

4.5 First and Second Person

First and second person forms provide a mixed message about the status of passive patients.

4.5.1 Subject Clitics

First and second person subject markers are second-position clitics in main clauses.

Table 1. Main Clause Subject Clitics

	SINGULAR	PLURAL
FIRST PERSON	cən	ct
SECOND PERSON	č	ce:p

Compare (22) and (23). The first person singular subject clitic appears after the main verb in (23), as the verb is clause-initial and it comes immediately after the clause-initial auxiliary in (22). Notice that the future clitic patterns in the same way.

(22) Subject Clitic Follows Clause-Initial Auxiliary

?i	**cən**	ce?	q̓^{w}əl-ət	t^{θ}ə	sce:łtən.
aux	**1sub**	fut	barbecue-tr	art	salmon

'I will barbecue the salmon.'

(23) Subject Clitic Follows Clause-Initial Main Verb

q̓^{w}əl-ət	**cən**	ce?	t^{θ}ə	sce:łtən.
barbecue-tr	**1sub**	fut	art	salmon

'I will barbecue the salmon.'

We list historically related subordinate clause subject clitics as well, since they will appear in examples below. Notice that third person appears in this series.[8]

Table 2. Subordinate Clause Subject Clitics

	SINGULAR	PLURAL
FIRST PERSON	-e:ṅ	-ət
SECOND PERSON	-əx^{w}	-ələp
THIRD PERSON	-əs	

4.5.2 Object Suffixes

Object markers are verbal affixes which appear in combination with a transitive subject. The first and second person singular suffixes phonologically fuse with transitive *-t* . We reconstruct a person marker transitive *-t* plus a first and second person marker *-s* which coalesced to [c] and shifted to [θ].

Table 3. Object Pronoun Suffixes with transitive *-t*

	SINGULAR	PLURAL
FIRST PERSON	-θaṁš	-t-aḷx^{w}
SECOND PERSON	-θamə	-t-alə
THIRD PERSON	-t (i.e., Ø)	

(24) Transitive Verb, First Person Subject, Second Person Object

ni? cən pas-əθamə.
aux 1sub hit-tr+2obj
'I hit you.'

(25) Transitive Verb, Second Person Subject, First Person Object

ni? č pas-əθaṁš.
aux 2sub hit-tr+1obj
'You hit me.'

The object pronoun suffixes appear in combination with other transitivizers. The limited control transitive suffix *-nəx^{w}*, indicating that the subject acted accidentally or did it with difficulty, occurs in sentence examples below (e.g., (28)-(31)), a table is provided here.

Table 4. Object Pronoun Suffixes with Limited Control Transitive *-nəx^{w}*

	SINGULAR	PLURAL
FIRST PERSON	-n-aṁš	-n-aḷx^{w}
SECOND PERSON	-n-amə	-n-alə
THIRD PERSON	-nəx^{w} (i.e., Ø)	

[8]Third person subject is then doubly marked when the verb is transitive. See sentence example (61).

4.5.3 Passives and Person Marking

First and second person patients in passives are signalled by suffixes which are not transparently derived from the active inflections, but there is a concensus among Salishanists that they are historically object forms. Note, for example, the *θ* in first and second singular forms based on transitive *-t*. As we have examples later on with subordinate clause passive forms, based on a passive suffix *-t*, we include them here as well.

Table 5. Passive 'Object' Suffixes with Transitive *-t*

	SINGULAR	PLURAL
FIRST PERSON	-θel-əm	-t-al-əm
SECOND PERSON	-θa:-m	-t-al-əm
THIRD PERSON	-t-əm	

Table 6. Subordinate Passive 'Object' Suffixes with Transitive *-t*

	SINGULAR	PLURAL
FIRST PERSON	-θe:l-t	-t-a:l-t
SECOND PERSON	-θamə-t	-t-a:l-t
THIRD PERSON	-t-ewət	

Table 7. Passive 'Object' Suffixes with Limited Control Transitive *-nəx^{w}*

	SINGULAR	PLURAL
FIRST PERSON	-n-el-əm	-n-al-əm
SECOND PERSON	-n-a:-m	-n-al-əm
THIRD PERSON	-n-əm	

Table 8. Subordinate Passive 'Object' Suffixes with LCT *-nəx^{w}*

	SINGULAR	PLURAL
FIRST PERSON	-n-e:l-t	-n-a:l-t
SECOND PERSON	-n-amə-t	-n-a:l-t
THIRD PERSON	-n-ewət	

The following sentences exemplify first person object/patient marking with transitive *-t* in active (26) and passive (27) clauses. Note that the passive clause does not contain the third person ergative suffix and that the actor is in the oblique case, points to which we return below.

(26) (Active) Transitive Clause (3rd Subject, 1st Object)

ni?	pas-**əθam̓š**-əs	t$^{\theta}$ə	swəy̓qe?.
aux	hit-**tr+1obj**-3erg	art	man

'The man hit me.'

(27) Passive Clause with First Person Patient

ni?	pas-**əθel-əm**	?ə	t$^{\theta}$ə	swəy̓qe?.
aux	hit-**tr+1-pas**	obl	art	man

'I was hit by the man.'

On the face of it, the morphology suggests that at least first and second person passive patients are objects. Bear in mind, however, that the morphology may not necessarily coincide with the syntax and, furthermore, even if there are independent reasons for assuming first and second person passive patients are objects, this may not be true of third person.

Recall that the phonological side our passive rule mapped transitive suffixes to passive suffixes. If we assume that object-inflected transitive suffixes are fused into indivisible suffixes (and the phonological fusion in first and second person singular forms supports this), then these are mapped to corresponding inflected passive suffixes. As such, the syntactic role of passive patients may very well be an independent issue. Gerdts (1989) suggests that the phonological fusion in first and second person object transitives may be the reason for the apparent object-like passive forms and she suggests that passive patients are nevertheless syntactic subjects.

4.5.4 Subject/Object Extraction with Predicative Pronouns

Not only are Halkomelm object forms fixed on the verb, but they are not deleted in extraction contexts, whereas the subject markers are.[9] Consider the following cleft constructions. When the object is 'extracted' or linked to the predicative pronoun, an object suffix remains on the verb, as in (28) and (30) so we have double marking. But when a subject is linked to the predicative pronoun, there is no doubling because no subject clitic appears, as in (29).

(28) Object Extraction: Doubling

?e:n̓θə	?i	ləm-**n-am̓š**-əs	t$^{\theta}$ə	me?.
be-I	aux	see-lctr-**1obj**-3erg	art	grandpa

'It was I that grandpa saw.'

(29) Subject Extraction: Deletion

?e:n̓θə	ni?	ləm-nəx^{w}	t$^{\theta}$ə	me?.
be-I	aux	see-lctr	art	grandpa

'It was I that saw grandpa .'

[9]A slight point of complexity is the fact that first and second person subject markers in subordinate clauses are distinct from, though historically related to, main clause forms. Further, the subject markers in extraction contexts do not cliticize, they are fixed on the main verb, as in (30).

(30) Object Extraction (with First Person Subject): Doubling

nəwə ni? ləm-n-**am(ə)**-e:n̓.
be-you aux see-lctr-**2obj**-1su
'It was you that I saw.'

It is not possible to employ the subject-extraction strategy of deletion in the case of objects. That is, doubling is obligatory, as shown in (31).

(31) Deletion Strategy for Object Fails

not: *nəwə ?i ləm-nəx^{w}-e:n̓.
be-you aux see-lctr-1su
for: It was you that I saw.

4.5.5 Passive Patient Extraction with Predicative Pronouns

First and second person passive patient marking is retained on the verb in extraction contexts, like active object marking.[10]

(32) Object Extraction: Doubling

ʔe:n̓θə ?i ləm-n-**am̓š**-əs t$^{\theta}$ə me?.
be-I aux see-lctr-**1obj**-3erg det grandpa
'It was I that grandpa saw.'

(33) Passive Patient Extraction: Doubling

ʔe:n̓θə ?i ləm-n-**el**-əm ʔə-x̓̌ me?.
be-I aux see-lctr-**1**-pas obl-det grandpa
'It was I that grandpa saw' = 'It was I that was seen by grandpa.'

We find that doubling of the passive patient by retaining the marking on the verb is obligatory, as in (34). This is parallel to example (31) and thus shows that passive patient extraction is similar to active object extraction.

(34) Deletion Strategy for Passive Patient Fails

not: *ʔe:n̓θə ?i ləm-n-əm ʔə-x̓̌ me?.
be-I aux see-lctr-pas obl-det grandpa
for: 'It was I that grandpa saw.'

[10]For this reason, following Hukari (1980), Gerdts (1988a) treated passives with first or second person patients as 'impersonal', not positing advancement.

4.6.6 Summary The facts that we have seen in this section present a picture which seems consistent with the assumption that first and second person passive patients are objects rather than subjects, contra our hypothesis. Bear in mind, however, that our passive rule in (6) predicts that object-like marking will appear on passive verbs given the assumption that the person marking and the transitive suffix are fused. We develop this idea further in the context of HPSG in Section 8 below.

4.6 Conclusions

This section provides evidence that passive agents are not subjects: they are not accessible to extraction, unlike subjects, they are in the oblique case whereas subjects are otherwise in the straight (unmarked) case, and they are freely ordered with respect to the passive patient. The status of passive patients is less clear and we continue to ask about them in the next section.

5 More on the Syntactic Role of Passive Patients.

We have, for the most part, non-answers to the question of the syntactic status of passive patients. Essentially, Halkomelem shows ergative/absolutive patterning, as argued by Gerdts (1988a). Case and extraction point in this direction, as discussed in previous sections. But first and second person markers for passive patients show morphological object-like properties. We now turn to other possible evidence.

5. 1 Anaphors and Binding

Halkomelem does not have independent reflexive or reciprocal pronouns, thus anaphora and binding principle A cannot be employed as a test. In brief, the reflexive and reciprocal are suffixes which combine with the transitive suffixes to form intransitive verbs and they cannot come into play in passivization.

5.2 Doubling

First or second person passive patients are not flagged by subject marking in simple clauses in Halkomelem. And this is the case in all but four Salish languages. But we find that optional marking is possible in more complex Halkomelem structures, with speaker variation as to which constructions support this.

One negative construction involves doubling of subject marking. The second subject marker is a subordinate clause subject marker.

(35) Negative Construction: Double Subject

ʔəwə	ʔə	**č**	niʔ-**əxʷ**	x̌iʔ-nəxʷ	kʷθə	qəṅqəṅʔ
not	ques	**2sub**	aux-**2sub**	catch-lctr	art	thief

'Didn't you catch the thief?'

It is possible to optionally use a main clause subject marker which corresponds to the passive patient. (Notice that this particular construction employs an alternate subordinate clause passive suffix, *-ət*, although nothing hinges on this.)

(36) Negative Passive with Optional Subject Marking

ʔəwə **č** ǰiʔ-n-**amə**-t.
not **2sub** catch-lctr-**2**-pas (subordinate passive)
'Don't get caught.'

A second doubling construction occurs in nominalized clauses. When the clause is nominalized, the subject is marked by a possessive affix which generally is cliticized to the first word of the nominalized clause, as is the nominal prefix *s-*. However subordinate clause nominal passives generally have no possessor marking the subject relation, so (37) has no possessor. But optional marking agreeing with the passive patient is possible as in (38).

(37) Nominalization: 3rd or no Subject marking

sk̓ʷey kʷ s-ǰiʔ-n-e:**l**-t.
cannot art nom-catch-lctr-**1**-pas (subordinate passive)
'They can't catch me.'

(38) Nominalization: 3rd or no Subject marking

sk̓ʷey k̓ʷə **nə**-s-ǰiʔn-**e:l**-t.
cannot det **1pos**-nom-catch-lctr-**1**-pas (subordinate passive)
'They can't catch me.'

The conditions under which this optional doubling pertains require further investigation.[11]

5.3 Conclusions

Passive first and second person inflection may not necessarily reflect the syntax. If object-inflected transitive verbs are converted into passives, the formal marking may carry over independently of the mapping from argument structure to valence features, as reflected in our passive rule. And this position is consistent with what we found in section 5.2., namely that the passive patient may optionally be signalled by a subject marker in spite of the fact that the morphology in which it appears most closely resembles object marking.

We somewhat tentatively conclude that passive patients are surface subjects despite the object-like morphological marking on the verb. This hypothesis finds further support in Section 7, where we see a control structure which can (but need not) target the passive patient and never targets active objects.

6 Clause-Internal Control

We consider three cases of control in this section. While these are reminiscent of classical control verbs at least in their translations, the first construction involves auxiliary verbs of motion and the remaining two are morphological: a desiderative suffix and a suffix meaning 'pretend to'.

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[11] Gerdts (1989) suggests that this can happen only when markers are in different agreement domains, although more research certainly needs to be done to work out the details of this proposal in the context of HPSG.

It seems clear to us that in none of these constructions does the controller simply target a syntactic subject. Beyond this fact, there is considerable room for interpreting the results: either the constructions target an a-subject (at some level) which is an actor or they simply target an actor. We propose that these control structures target an a-subject actor, although the issue is not a closed one and we admit that constraining control in these constructions to a-subjects is largely a hypothesis based on the assumption that control is restricted to arguments cross-linguistically.

6.1 Motion Auxiliary Verbs

Halkomelem motion auxiliary verbs normally link to the subject of the main verb, as in the following intransitive and transitive constructions.

(39) Motion Verb Linking to Intransitive Subject

ni?	nem̓	nəẇiləm	kʷθə	swəy̓qe?
aux	go	enter	art	man

'The man went in.'

(40) Motion Verb Linking to Transitive Subject

ni?	nem̓	kʷən-ət-əs	kʷθə	swəy̓qe?	łə	sɬeni?
aux	go	take-tr-3erg	art	man	art	woman

'The man went and took the woman.

Nevertheless, motion auxiliaries co-occur with passive main verbs.

(41) Motion Verb Linking to Passive Agent

ni?	nem̓	kʷən-ət-əm	θə	sɬeni?	ʔə-ẋ̌	John
aux	go	take-tr-pas	art	woman	obl-art	John

'John went and took the woman.'
not: 'The woman went and was taken by John.'

As indicated by the gloss, it is the actor who is in motion, not the undergoer (Gerdts 1988b). The following are similar examples with first and second person 'objects'.

(42) Motion Verb Linking to Passive Agent (First Plural Patient)

m̓i	yəxʷ	ʔal̓ə	sq̓-əlcəp-min-t-al-əm?
go	dubitive	curious	split-wood-appl-tr-1pl-pas

'Are they going to come and chop wood for us?'

(43) Motion Verb Linking to Passive Agent (Second Singular Patient)

nem̓	yəxʷ	ʔal̓ə	sq̓-əlcəp-min-θa:-m?
come	dubitive	curious	split-wood-appl-tr+2-pas

'Is he going to go chop wood for you?

We have provided evidence in previous sections that passive agents are not syntactic subjects, thus it appears motion auxiliaries are not targetting the syntactic subject. One account is that auxiliaries of motion access passive agents in argument

structure. More precisely, we claim that motion auxiliary verbs link with something which satisfies two criteria: it is an argument of the main verb and it is an agent. We have observed at least one other language, Tzotzil (Aissen 1984), where similar facts seem to hold .

(44) 7ech' 7ak'-b-at-ik-on jimoton y-u7un kamikotak.
PASS GIVE-io-pas-subj-B1 MY PRESENT A3-BY friends
'My friends passed by to give me my present.'

The Tzotzil construction is indisputably a passive and the motion auxiliary links to the agent.

The facts in the case of control and auxiliaries of motion are not quite transparent, but seems quite clear that the auxiliary is not simply targetting the subject of the main verb as controllee. Unaccusatives are beyond the scope of the present study, but generally they are rejected in this construction.[12] And, more importantly, passive agents are selected despite the fact they do not show subject-like properties. The facts are compatible with the assumption that it targets an agent which is an a-subject.

The HPSG control story in Pollard and Sag (1994) centers on the role of embedded subject, although not without semantic constraints. Basically, an embedded predicative category whose subject is not realized has an anaphor subject. This is indexed by a semantic control theory with the appropriate semantic role in the content of the higher control verb. The situation differs in Halkomelem in several respects. In particular, we have seen that the controllee may be a passive agent which is a non-subject. We question whether a solution in which an embedded predicate's subject is a reflexive is viable as well. We will see a control construction in Section 7 in which the controllee is morphologically marked and it is not reflexive.

Since passive agents are not syntactic subjects, it seems clear that the connection between motion auxiliaries and the main verb must be stated differently. We propose, following Gerdts (1988b), that the auxiliary inherits all arguments of the main verb using argument composition—along the lines of considerable work proposed by, inter alia, Abeillé and Goddard (1994), Hinrichs and Nagazawa (1994), Monachesi (1995). If the control relation should be restricted to things which are both actors and a-subjects, this can be stated along the following lines where the disjunction might be more perspicuously put as (<NP,)<NP_i, ...>(>), i.e., an a-subject is targetted—either in the main list or in an embedded one, provided it is coindexed with the verb's actor role (ACT).

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[12]The facts are much more complex. Often unaccusatives are interpreted as 'whimperatives', where there is understood agency.

(i) Motion Auxiliary with Unaccusative
m̓i ce? x̌ʷaq̓ʷ tθə (ə)n̓-x̌ʷiɬəm ?ə tθə q̓əlex̌əctən.
come fut tangle art 2pos-rope obl art fence
'You will tie your rope around the fence post.'
[The addressee is on the other side of the fence & will come towards the speaker.]

(45) Control Relation in Motion Auxiliary Verbs

$$\left[\begin{array}{ll} \text{ARG-ST} & \left\langle \left[\begin{array}{ll} \text{ARG-ST} & [1] < \text{NP}_i > \overset{\text{V}}{\oplus} \text{L} \vee < \text{NP}, < \text{NP}_i > \oplus \text{L} >) \\ \text{CONT} \mid \text{ACT} & i \end{array}\right] \right\rangle \oplus [1] \\ \text{CONT} \mid \text{ACT} & i \end{array}\right]$$

6.2 Desiderative *-əlmən*

When the desiderative suffix *-əlmən* combines with an intransitive or a transitive, it is the subject which desires the completion of the event.

(46) Desiderative and an Intransitive Subject

ʔi	hənəm̓-**əl̓mən̓**	tᶿə	swəy̓qeʔ
aux	go(cont)-**des**	det	man

The man wants to go.'

(47) Desiderative and a Transitive Subject

niʔ	ċeċəẇ-ət-əs-**əl̓mən̓**	kʷθə	swiẇləs	łə	sɬeniʔ.
aux	help(cont)-tr-3erg-**des**	art	young.man	det	woman

'The young man wants to help the woman.'
not: 'The woman wants the young man to help her.'

When the suffix combines with a passive verb, it is the agent, not the patient which desires the completion of the event (Gerdts 1988b).

(48) Desiderative and a Passive Agent

niʔ	ċew-ət-əm-**əlmən**	łə sɬeni'	ʔə-x̌	John.
aux	help-tr-pas-**des**	det woman	obl-art	John

'John wanted to help the woman.'
not: 'The woman wanted to be helped by John.'

This follows if we say that the desiderative links not to the syntactic subject but to the internal a-subject. Note that in Micmac it appears that either a-subject is accessible (Frantz 1976a, 1976b).

(49) Ketu-pma:l-k
want-carry-ls:3s
'I want to carry him.'

(50) Ketu-pma:l-uksi-Ø
want-carry-pas-1s
'I want to be carried' or 'One wants to carry me.'

As in the case of motion auxiliaries, the desiderative affix does not straightforwardly target syntactic subjects. Like motion auxiliaries, it selects passives agent controllees. Again, we propose that the construction selects an a-subject which is an actor, although we do not formulate an entry here.

6.3 'Pretend to' *-stənaṁət*

The combination of the causative suffix *-st(əxʷ)* combines with the reflexive of the limited control transitive *-naṁət* as *-stənaṁət* and this has a grammaticized meaning of 'pretend to' (Gerdts 1998). This morphological construction functions outside the normal paradigm for the causative, as noted by Leslie (1979) and Gerdts (1995b). So, for example, it can appear on a transitive verb, whereas the simple causative cannot.

(51) pas-ət-**stənaṁət** (Leslie 1979, 39: 110a)
hit-tr-**pretend**
pretend to hit him'

(52) Desiderative Linked to Active Subject
ni? cən kʷən-ət-**stənaṁət**
aux 1sub take-tr-**pretend**
'I pretended to take it.'

(53) Desiderative Linked to Active Subject
ṁi? č ṗe? temə-θaṁš-**stənaṁət**
aux 2sub certain call-tr+1obj-**pretend**
'Come just pretend that you are telephoning me.'

Leslie also points out that a passive can serve as a base. When it does, it links to the actor, not the undergoer, as it does in the case of simple transitives.

(54) Desiderative Linked to Passive Agent
t̓ᶿiqʷ-əs-θel-əm-**stənaṁət** (Leslie 1979, 38:106)
punch-face-tr+1-pas-**pretend**
'He pretended to hit me in the face.'

(55) Desiderative Linked to Passive Agent
ni? kʷən-əθel-əm-**stənaṁət** ?ə-ƛ̓ John
aux take-tr+1-pas-**pretend** obl-det John
'John pretended to take me.'
('He said he was going to but he didn't really intend to.')
not: I pretended to be taken by John.

(56) Desiderative Linked to Passive Agent
ni? ?ə c̓əẇə-θá:m-stənaṁət ?ə-ƛ̓ John
aux quest help-tr+2-pas-**pretend** obl-det John
'Did John just pretend to help you?'
not: You pretended to be helped by John.

Thus this construction seems essentially the same as the desiderative.

6.4 Conclusions about Clause-Internal Control

Our account of control in motion auxiliary constructions in (45) involves argument inheritance. As the other two constructions are morphological rather than syntactic, we leave open the issue of argument inheritance. It is logically possible that the morphologically complex word simply inherits the argument structure of the base word in a rule along the following lines. (Note that we are assuming the input is a fully inflected word.)

(57) Halkomelem Desiderative Lexical Rule

$$\left\langle \text{PHON } \langle [1] \rangle, \begin{bmatrix} word \\ \text{CONT} \mid [2]\text{SOA} \mid \text{ACTOR i} \end{bmatrix} \right\rangle \Rightarrow$$

$$\left\langle \text{PHON } \langle [1] \oplus \textit{əlməŋ} \rangle, \begin{bmatrix} \text{CONT} \mid \begin{bmatrix} desire\text{-}reln \\ \text{ACTOR} & \text{i} \\ \text{SOA} & [2] \end{bmatrix} \end{bmatrix} \right\rangle$$

The facts involving control that are persued in this section, while suggestive concerning the nature of the universal passive in HPSG and its instantiation in Halkomelem, do not provide compelling arguments for our hypothesis. We assume that the optimal treatment of motion auxiliaries is one in which an a-subject is targetted in control, but the facts may be compatible with a semantic constraint targetting an actor and the same can be said for the morphological constructions. We turn in the next section to interclausal control, which we feel provides stronger evidence.

7 Interclasual Control

Finally we consider a control construction (or, alternatively, a case of raising) in which a higher psychological/cognition verb controls an argument of its complement clause.[13] We believe that this construction offers fairly convincing exemplification of a construction in which the controllee links to either a 'matrix' or an embedded a-subject within the lower argument structure.[14]

The construction does not appear to require that the coreferential arguments be construed as agents, thus either the agent or patient in a subordinate passive clause may link to the upper argument.[15]

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[13]It is not material to our discussion whether we are looking at equi or raising so we will not pursue the point. The empirical difference between the two is most likely semantic in the context of Halkomelem, and it is not clear to us that there is a meaning difference of the sort we would predict, along the lines of the non-paraphrases 'We persuaded a doctor to examine Kim'/We persuaded Kim to be examined by a doctor' versus the paraphrases 'We expected a doctor to examine Kim'/We expected Kim to be examined by a doctor'. See Pollard and Sag (1994, pp. 132-145) for a discussion of raising vs. equi in the context of HPSG.

[14]Davis (1980) and Blake (1997) report on a similar phenomenon in another Coast Salish language, Sliammon. They discuss perception verbs as 'raising' or 'control' contructions and show that only the surface subject of the passive, not the agent, is accessible. Verbs of perception in Halkomelem, unlike the cognitive verb we discuss here, do not show the same kind of limits as found in Sliammon.

[15]Notice that this is not an infinitive construction. Halkomelem basically has two types of subordinate clauses, nominals or ones with what is called in comparative Salish, the conjunctive form. Both have overt

(58) Without Control.

ʔi	cən	x̌eʔx̌ci-t[16]	[ʔəẇ-ʔi-ʔəs	leḷəṁ-ət-əm	ʔə-x̌̓	John
aux	1sub	wonder-tr	lnk-aux-3sub	look(cont)-tr-pas	obl-art	John

kʷθə Bob]
art Bob
'I'm wondering if Bob is being watched by John.'

(59) Passive Agent Control[17]

ʔi	cən	x̌eʔx̌ci-t	kʷθə	John	[ʔəẇ-ʔi-ʔəs	leḷəṁ-ət-əm
aux	1sub	wonder-tr	art	John	lnk-aux-3sub	look(cont)-tr-pas

kʷθə Bob]
art Bob
'I'm wondering about John if Bob is being helped by him.'

(60) Passive Patient Control

ʔi	cən	x̌eʔx̌ci-t	kʷθə	Bob	[ʔəẇ-ʔi-ʔəs	leḷəṁ-ət-əm
aux	1sub	wonder-tr	art	Bob	lnk-aux-3sub	look(cont)-tr-pas

ʔə-x̌̓ John]
obl-det John
'I'm wondering about Bob if he is being helped by John.'

On our account (see (58) below), the accessible argument of the subordinate clause must be an a-subject, thus only the syntactic subject of a transitive clause is accessible. But since a passive construction has two a-subjects—the agent or the patient—either is accessible. Notice however that the object of a subordinate active clause does not link to the upper argument.

(61) Without Control of the Object of an Active Clause

ʔi	cən	x̌eʔx̌cit	kʷθə	John	[ʔəẇ-ʔi-ʔəs	leḷəṁ-ət-əs
aux	1sub	wonder-tr	art	John	lnk-aux-3sub	look(cont)-tr-3erg

tᶿə Bob]
det Bob
'I'm trying to figure out if John is watching Bob.'
Not: 'I'm trying to figure out if Bob is watching John.'

This is illustrated more compellingly in the following example, as there is no room for a grammatical interpretation.

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subject morphology (even in third person). Both are possible in control structures, although we have confined our examples to the conjunctive form.

[16]This word is in a durative form. (The continuative is *x̌ect.*)

[17]Our data come primarily from three very fluent speakers. One does not accept passive agent controllees. Her judgments are firm on this. However, we also have confidence in the judgments of the other speakers that the passive agent can be a controllee. We should note that the former is younger than the other two and it is possible that this reflects a linguistic change.

(62) *Without Control of the Object of an Active Clause

*ʔi	cən	x̌eʔx̌cit	kʷθ-əẇ-nił	[ʔəẇ-ni-:n	ce?	x̌̓əwəł	
aux	1sub	wonder-tr	det-lnk-3emph	lnk-aux-1sub	fut	too	
	ləm-nəxʷ]						
	look-lctr						

For: 'I'm wonder if I will see that one again.'

The facts shown above can also be illustrated with first and second person controllers and controllees.

(63) Without Control.

ʔi	cən	x̌eʔx̌ci-t	[ʔəẇ-ni-əxʷ	ce?	lem-əθaṁš].
aux	1sub	wonder-tr	lnk-aux-2sub	fut	look-tr.1obj

'I'm figuring if you were gonna come and see me.' (EM 1980 1:35)

(64) Second Person Subject Controllee

ʔi	cən	x̌eʔx̌ci-θaṁə	[ʔəẇ-ni-əxʷ	ce?	lem-əθaṁš].
aux	1sub	wonder-tr.1obj	lnk-aux-2sub	fut	look-tr.1obj

'I'm figuring if you were gonna come and see me.' (EM 1980 1:36)

(65) Without Control

ʔi	cən	x̌eʔx̌ci-t	[ʔəẇ-ʔi-ʔəs	ləṁləṁ-əθa:-ṁ	ʔ	ə	tᶿə	swəẏqeʔ].
aux	1sub	wonder-tr	lnk-aux-3sub	look(cont)-tr.2-pas		obl	art	man

'I'm taking notice if the man is watching you.' (AG 1980 2:62)

(66) Second Person Passive Patient Controllee

ʔi	cən	x̌eʔx̌ci-θaṁə	[ʔəẇ-ʔi-ʔəxʷ/-ʔəs	leḷəṁ-əθa:-ṁ
aux	1sub	wonder-tr.2obj	lnk-aux-2su/-3sub	look(cont.)-tr.2-pas

ʔə	tᶿə	swəẏqeʔ].
obl	art	man

'I'm checking you to see if the man is watching you.' (AG 1980 2:62)

Notice that the last example (66) also shows optional doubling of second person in the lower clause: the second person passive verb marking is optionally matched by 2nd person subject marking. And, finally, we show that a non-third object of an active subordinate clause is not targetted as controllee.

(67) No Control of an Active Object (Second Person)

*ʔi	ʔə	č	x̌eʔx̌ci-θaṁš	[ʔəẇ-ʔi-ʔəs	ce?	ċew-əθaṁš-əs]
aux	ques	2sub	wonder-tr.1obj	lnk-aux-3sub	fut	help-tr.1obj-3erg

for: Are you figuring me out, if he is going to help me?

7.1 The Status of the Matrix Object

An interesting issue is whether the putative matrix object NP is really an object or some sort of fronted NP within the subordinate clause. Object marking on the matrix verb, as in (64) and (66) seems pretty compelling as evidence that it is, in fact, the matrix

object. The point is further made by extraction, since the object is accessible, whereas a downstairs object is not.

(68) Without Extraction

ʔi	cən	x̌eʔx̌ci-t	kʷθə	John	[ʔəẇ-ʔi-ʔəs	leḷəm̓-ət-əs
aux	1sub	wonder-tr.	art	John	lnk-aux-3sub	look(cont.)-tr-3erg

tθə Bob]
art Bob
'I'm trying to figure out if John is watching Bob.'

(69) Matrix Object Extaction

nił	ɬwet	ḵʷə	ʔi	x̌eʔx̌ci-t-əxʷ	[ʔəẇ-ʔi-ʔəs	leḷəm̓-ət-əs
be-3	who	art	aux	wonder-tr-2sub	lnk-aux-3sub	look(cont.)-tr-3erg

tθə Bob]
art Bob
'Who$_i$ were you wondering if he$_i$ is watching Bob?'

The fact that the ostensible matrix object is accessible for extraction without any special marking is strong evidence that it is, in fact, the matrix object. (If extraction from a subordinate clause subject were involved, we would expect deletion of the ergative suffix and special marking on the matrix verb.)

7.2 Conclusions

We have seen this object-control structure clearly targets only subjects in active subordinate clauses, while it targets either agents or patients in passives. With these facts in mind, we state the following partial lexical entry for *x̌cət* in control structures.

(70) Object Control Verb *x̌cət* 'figure, wonder'

$$\left[\text{ARG-ST} \left\langle \text{NP}, \text{NP}_i, \left[\text{ARG-ST} \begin{array}{c} \text{S} \\ <\text{NP}_i> \oplus \text{L} \vee <\text{NP}, <\text{NP}_i> \oplus \text{L}> \end{array}\right]\right\rangle\right]$$

We are thus making the following claims:
- The higher verb selects an object (the second NP argument in ARG-ST) and a subordinate clause.
- The matrix object controls an a-subject in the lower clause: either the first element on the lower verb's argument structure or the first element on an embedded argument structure, where the latter option is possible when the lower verb is passive, given our anaysis of passivization following Manning and Sag (1999).

The fact that the construction targets passive patients but not active objects could be taken as support for our claim that passive patients are syntactic subjects. However this is also compatible with an analysis in which passive patients are a-subjects but not syntactic subjects, if control is stated on argument structure as it is in (70). Thus this section does not offer definitive evidence for (7) vs. (8).

The fact that it targets passive agents despite our evidence that these are not syntactic subjects supports our contention that control in this construction is based on argument structure and provides evidence for the complex argument structures in Manning and Sag's universal passive.

Finally, as mentioned in footnote 16, not all speakers accept passive agent controllees. Those who do have been checked repeatedly and seem to have consistent judgments on this. The split among speakers of essentially the same dialect of Halkomelem is interesting and seems best described by saying that Halkomelem control is, as we claim, based on argument structure in this construction and that some speakers can access an embedded a-subject while others access only the highest a-subject.

8 Transitives, Passives, and Antipassives

We return now to the puzzle of apparent object marking in passives, re-examining transitive marking in the process, and comparing passives to antipassives.

8.1 Transitives

Transitive marking in Halkomelem is a complex issue and we will not attempt to resolve it completely here. We have, for example, not discussed causatives, nor will we consider various sorts of applicatives.

Let us assume that lexical bases may have argument structures with (at least) two NPs, as in the following, and we call these 'a-transitives', for 'argument structure transitives', not to be confused with morphosyntactic transitives. And we treat a-transitivity as a subtype of verb.

(71) A-Transitives

$[a\text{-}trans\text{-}vb] \rightarrow [\text{ARG-ST} \langle \text{NP}, \text{NP} \rangle \oplus \text{L}]$

We leave open the possibility that certain obliques which we do not wish to include are, in fact, arguments and in that case it may be necessary either to implement Manning's (1994) direct/oblique distinction in argument structure or to propose a more fine-grained analysis which invokes higher-level semantic roles along the lines of A. Davis (1996). In the latter case, the lexical bases which we target for the discussion at hand may be of the semantic type *actor-undergoer*, with the first NP linking to ACTOR and the second to UNDERGOER. We leave this issue unresolved here.

All transitive Halkomelem verbs will be of type *m-trans-verb*, indicating they are morphological transitives. They will have a transitive suffix, and we assume this is because the only *m-transitive* verbs are output of transitive lexical rules . Their argument structure is inherited from *a-transitive* bases (though we mention it here), and only *m-transitive* verbs have the valence feature OBJ.

(72) Morpho-Syntactic Transitives

$$\begin{bmatrix} \textit{m - trans - vb} & \\ \text{MORPH} & \begin{bmatrix} \text{AFF} & \begin{bmatrix} \textit{trans - suf} \\ \text{FORM} \quad \text{X} \end{bmatrix} \\ \text{STEM} & \text{Y} \end{bmatrix} \\ \text{SYNSEM} & \begin{bmatrix} \text{OBJ} & < \text{NP[CASE: strt]} > \\ \text{ARG - ST} & < \text{NP, NP} > \oplus \text{L} \end{bmatrix} \end{bmatrix}$$

Transitive *-t*, as in (2)a, and the limited control transitive suffix *–nəx*^{w} (when it plays the role of counterpart to *-t*, as in (3)a) convert *a-transitive* lexical bases into transitive verbs. We assume that all verbs have the valence features SUBJ and COMPS. Transitive morphology adds the feature OBJ, whose value is an NP in straight case. (These points do not need to be mentioned in the *-t* transitive lexical rule as they follow from general principles, but we include them for the purpose of discussion.)

(73) Transitive *-t* Lexical Rule

$$\begin{bmatrix} \textit{trans - t - reln} & \\ \text{RESULT} & \begin{bmatrix} \textit{m - trans - vb} & \\ \text{MORPH} & \begin{bmatrix} \text{AFF} & \begin{bmatrix} \textit{trans - suf} \\ \text{FORM} \quad \textit{ət} \end{bmatrix} \\ \text{STEM} & [1] \end{bmatrix} \\ \text{SYNSEM} & [\text{OBJ} \quad < \text{NP[CASE: strt]} >] \end{bmatrix} \\ \text{SOURCE} & \begin{bmatrix} \textit{a - trans - vb} \\ \text{MORPH} \quad [\text{STEM} \quad [1]] \end{bmatrix} \end{bmatrix}$$

We assume that when the feature OBJ present, the canonical mapping from argument structure ranks the valence features as follows: SUBJ < OBJ < COMPS. Both SUBJ and OBJ NPs are assigned straight case. If an NP is mapped to COMPS, it will receive oblique case. The entry for *q̓*^{w}*aq*^{w}*-ət* 'hit-trans.' as in (2)a, with an instrument NP, will be along the following lines, once mapping from argument structure as taken place (if we assume the instrument is an argument).

(2)a ni? q̓^{w}aq^{w}**-ət**-əs k^{w}θə sx̌i?x̌qəɬ łə słeni? ?ə k^{w}θə
aux club-**tr**-3erg art child art woman obl art
sq̓əməl̓
paddle
'The child clubbed the woman with the paddle (on purpose).'

(74) An Entry for *q̓ʷaqʷ-ət* 'hit-trans.' (if the Instrument is an Argument)

$$\begin{bmatrix} \textit{m-trans-vb} & \\ \text{MORPH} & \begin{bmatrix} \text{AFF} & \begin{bmatrix} \textit{trans-suf} \\ \text{FORM} \quad ;\text{t} \end{bmatrix} \\ \text{STEM} & \check{}\text{¿aq¿} \end{bmatrix} \\ \text{SYNSEM} & \begin{bmatrix} \text{SUBJ} & \langle [1]\text{NP[CASE: strt]} \rangle \\ \text{OBJ} & \langle [2]\text{NP[CASE: strt]} \rangle \\ \text{COMPS} & \langle [3]\text{NP[CASE: obl]} \rangle \\ \text{ARG-ST} & \langle [1], [2], [3] \rangle \end{bmatrix} \end{bmatrix}$$

Passives are based on transitive bases—specifically, *m-transitive* ones, but we assume these are first inflected for object. We leave open whether object inflection is rule-driven or falls out from a type hierarchy of constraints, but we provide a sample rule for first person singular object agreement for the sake of discussion, given as a type.[18]

(75) First Person Object Agreement Rule

$$\begin{bmatrix} \textit{obj-inflection-reln} & \\ \text{RESULT} & \begin{bmatrix} \textit{infl-trans-vb} & \\ \text{MORPH} & \begin{bmatrix} \text{AFF} & \begin{bmatrix} \textit{trans-suf} \\ \text{FORM} \quad f_{1\text{sg.ob}}([2]) \end{bmatrix} \\ \text{STEM} & [1] \end{bmatrix} \\ \text{SYNSEM} & \begin{bmatrix} \text{ARG-ST} & \left\langle [1]\text{NP}, [2]\begin{bmatrix} \textit{o-aff} \\ \text{PERS} \quad \textit{1sg} \end{bmatrix} \right\rangle \oplus \text{L} \end{bmatrix} \end{bmatrix} \\ \text{SOURCE} & \begin{bmatrix} \textit{m-trans-vb} & \\ \text{MORPH} & \begin{bmatrix} \text{AFF} & \begin{bmatrix} \textit{trans-suf} \\ \text{FORM} \quad [2] \end{bmatrix} \end{bmatrix} \\ \text{SYNSEM} & [\text{ARG-ST} \ \langle [1]\text{NP}, [2]\text{NP} \rangle \oplus \text{L}] \end{bmatrix} \end{bmatrix}$$

The type of the a-object NP is noncanonical, *object-affix*. We assume, following Abeillé, Godard, and Sag (1998) and numerous works cited therein, that noncanonical arguments are not realized as actual syntactic daughters. We leave open whether such items are actually appear only in argument structure or are mapped to valence features such as OBJ but ignored by the Valence Principle.

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[18]A rule of this sort cannot be construed as a functional mapping, since there will be additional rules for other persons and numbers. If this is a problem, this could be one of a family of rules and the rule type would reflect this.

8.2 Passives

We now return to object marking in Halkomelem passives. The passive lexical is repeated here for reference.

(6) Halkomelem Passive Lexical Rule

$$\left[\begin{array}{ll} \textit{pass-reln} & \\ \text{RESULT} & \left[\begin{array}{ll} \textit{pas-vb} & \\ \text{MORPH} & \left[\begin{array}{ll} \text{AFF} & \left[\begin{array}{ll} \textit{pas-suf} & \\ \text{FORM} & f_{\text{pas}}([1]) \end{array}\right] \\ \text{STEM} & [2] \end{array}\right] \\ \text{SYNSEM} & \left[\text{ARG-ST} \;\; <[4]_j, \; <\text{pro}_i, \; \text{pro}_j> \; \oplus \; \text{L}>\right] \end{array}\right] \\ \text{SOURCE} & \left[\begin{array}{ll} \textit{infl-trans-vb} & \\ \text{MORPH} & \left[\begin{array}{ll} \text{AFF} & \left[\begin{array}{ll} \textit{trans-suf} & \\ \text{FORM} & [1] \end{array}\right] \\ \text{STEM} & [2] \end{array}\right] \\ \text{SYNSEM} & \left[\begin{array}{l} \text{OBJ} \\ \text{ARG-ST} \;\; <[3]_i, \; [4]> \; \oplus \; \text{L} \end{array}\right] \end{array}\right] \end{array}\right]$$

Consider the first person singular passive. According to (75), the t-transitive first person singular affix form is a function on *-t* whose value is *-θaṁš*. The corresponding passive is formally derived by the passive function which maps *-θaṁš* to *-θeləm*, as in the following walk-through.

(76) Exemplifying First Person Singular Passive

$$\left[\begin{array}{ll} \textit{infl-trans-vb} & \\ \text{MORPH} & \left[\begin{array}{ll} \text{AFF} & \left[\begin{array}{ll} \textit{trans-suf} & \\ \text{FORM} & f_{\text{1sg.ob}}(\textit{-t}) \; = \; [2]\,\textit{-θaṁš} \end{array}\right] \\ \text{STEM} & [1] \end{array}\right] \\ \text{SYNSEM} & \left[\text{ARG-ST} \;\; \left\langle [3]\text{NP}, \; [4]\text{NP}\left[\begin{array}{ll} o-\textit{aff} & \\ \text{PERS} & \textit{1sg} \end{array}\right]\right\rangle \; \oplus \; \text{L}\right] \end{array}\right] \Rightarrow$$

$$\left[\begin{array}{ll} \textit{pas-vb} & \\ \text{MORPH} & \left[\begin{array}{ll} \text{AFF} & \left[\begin{array}{ll} \textit{pas-suf} & \\ \text{FORM} & f_{\text{pas}}([2]) \; = \; \textit{-θeləm} \end{array}\right] \\ \text{STEM} & [1] \end{array}\right] \\ \text{SYNSEM} & \left[\text{ARG-ST} \;\; <[4]_i, \; <[3], \; \text{pro}_i> \; \oplus \; \text{L}>\right] \end{array}\right]$$

Notice that the passive verb will inherit the noncanonical specification for its outer a-subject from the transitive entry and thus it will not be realized as a NP daughter. Further, since the argument is *o-aff*, this may explain why it is not realized as a subject clitic. We set aside the analysis of subject morphology as this beyond the scope of this presentation. Recall that first and second person subject markers are second-position clitics at the clause level, not verbal affixes, while the third person transitive ergative marker is a verb suffix. (In addition, all persons are marked by affixal second-position clitics in the so-called conjunctive-type subordinate clauses.)

8.3 Antipassives

Consider now Halkomelem antipassives, as in (10), repeated here, where we take the particular middle construction to be an antipassive.

(10) Antipassive *-m*

ni?	q̓ʷəl-əm	tθə	swəy̓qeʔ	ʔə	k̓ʷ	sce:ɬtən.
aux	club-mid	art	man	obl	art	salmon

'The man barbecued some salmon.'

Antipassives are formally intransitive. See Section 4 for evidence of this. Gerdts and Hukari (to appear) propose that antipassive *-m* is affixed to a 'transitive' base, specifically, to an *a-transitive* base, and a new argument structure is derived which is similar to Manning's (1994).

(77) Antipassive *-m* Lexical Rule

$$\left[\begin{array}{ll} m\text{-}ap\text{-}rln & \\ \text{RESULT} & \left[\begin{array}{ll} m\text{-}ap\text{-}vb & \\ \text{MORPH} & \left[\begin{array}{ll} \text{AFF} & \left[\begin{array}{ll} intr\text{-}suf & \\ \text{FORM} & \text{-}m \end{array}\right] \\ \text{STEM} & [1] \end{array}\right] \\ \text{SYNSEM} & [\text{ARG-ST} \ \langle [1]_i, \ \langle \text{pro}_i, [2] \rangle \oplus \text{L} \rangle] \end{array}\right] \\ \text{SOURCE} & \left[\begin{array}{lll} a\text{-}trans\text{-}vb & & \\ \text{MORPH} & [\text{STEM} & [1]] \\ \text{SYNSEM} & [\text{ARG-ST} & \langle [1], [2] \rangle \oplus \text{L}] \end{array}\right] \end{array}\right]$$

This promotes the original a-subject to a-subject of the higher argument structure and it maps to SUBJ. As antipassives are subtypes of intransitives, not transitives, no OBJ feature appears, and any (canonical) arguments map to COMPS, where they are assigned oblique case, marked by the oblique particle.

(78) Antipassive Arguments Mapped to Valence Features

$$\begin{bmatrix} \textit{m-ap-vb} & \\ \text{MORPH} & \begin{bmatrix} \text{AFF} & \begin{bmatrix} \textit{intr-suf} \\ \text{FORM} \quad -\text{m} \end{bmatrix} \\ \text{STEM} & [1] \end{bmatrix} \\ \text{SYNSEM} & \begin{bmatrix} \text{SUBJ} & <[1][\text{Case: strt}]> \\ \text{COMPS} & <[2][\text{Case: obl}]> \oplus \text{L} \\ \text{ARG-ST} & <[1]_i, <\text{pro}_i, [2]> \oplus \text{L}> \end{bmatrix} \end{bmatrix}$$

Oddly enough, a second and more productive antipassive suffix, *-els*, sometimes combines with antipassive -m bases, as in the following example.

(79) Stacked Antipassive Suffixes

q̓ʷəl-əm-els	cən	ce?	ʔə	k̓ʷ	sce:ɬtən	ʔəẇ-kʷeyəl-əs.
bake-mid-ap	1sub	fut	obl	art	salmon	lnk-day-3su

'I am going to barbeque fish tomorrow.'

Gerdts and Hukari (to appear) discuss this and propose that this antipassive suffix attaches to bases whose argument structure has the a-transitive configuration **at some level**. This can be expressed as follows.

(80) *-els* Antipassive Rule

$$\begin{bmatrix} \textit{els-ap-rln} & \\ \text{RESULT} & \begin{bmatrix} \textit{els-ap-vb} & \\ \text{MORPH} & \begin{bmatrix} \text{AFF} & \begin{bmatrix} \textit{intr-suf} \\ \text{FORM} \quad \textit{-els} \end{bmatrix} \\ \text{STEM} & [1] \end{bmatrix} \\ \text{SYNSEM} & [\text{ARG-ST} <[2]_i, <\text{pro}_i, [3]> \oplus \text{L}>] \end{bmatrix} \\ \text{SOURCE} & \begin{bmatrix} \text{MORPH} & [\text{STEM} \quad [1]] \\ \text{SYNSEM} & \begin{bmatrix} \text{ARG-ST} & <[2]\text{NP}, [3]\text{NP}> \oplus \text{L} \vee \\ & <[2]\text{NP}, <\text{NP}, [3]\text{NP}> \oplus \text{L}> \end{bmatrix} \end{bmatrix} \end{bmatrix}$$

Notice the disjunctive specification of the argument structure in the input side of the rule. The first list is is a-transitive and the second contains an a-transitive list within it. This is reminiscent of the control configuration in (70) which we have also stated disjunctively.

9 Conclusion

In sum, the Halkomelem passive data show that at least two notions of subject are essential for capturing control phenomena. One set of constructions—motion auxiliaries, desideratives, and the "pretend" construction—involve linking to the agent. One construction—cognitive verb control—links to either the agent or the surface subject in a passive. Thus, Halkomelem control facts can be added to the catalog of phenomena that show that subject properties can be split or shared among different nominals including the passive agent. Similar conclusions have been drawn for data from Russian (Perlmutter 1984), Philippine languages (Schachter 1984), Tzotzil (Aissen 1984), and Blackfoot (1976a, b), among others. Such data reinforces the notion that passives have complicated structures relative to simple transitive clauses.

However, as Manning and Sag (1998) point out, one does not have to draw the conclusion that passive must be given a multilevel syntactic analysis from such data. Under their analysis, passivization yields a complex argument structure roughly like the following where the highest a-subject—the external a-subject— is the patient (i):

(1) $\langle NP_i, \langle NP, PRO_i \rangle \oplus L \rangle$

Their analysis of passive, which posits a complex argument structure with a single level of syntax, easily accounts for Halkomelem. Three subject control constructions—motion auxiliaries, desideratives, and the "pretend" construction— target the internal a-subject. One construction—cognitive verb control—targets any a-subject, at least for some speakers of Halkomelem.

The remaining weakness of our analysis is the lack of robust evidence for the surface structure of Halkomelem passives. Based on evidence from case and extraction, we argue that the agent is not a subject and is most likely a non-argument. Based on evidence from double-marking in negatives and nominalizations and cognitive verb control, we conclude tentatively that the patient is the surface subject, despite the fact that the passive pronominal suffixes most closely resemble object agreement suffixes. The concept of "quirky" case subjects is well-established, for example in Icelandic (Zaenen et al. 1985). What we suggest for Halkomelem is "quirky" agreement in passives. As with "quirky" case, "quirky" agreement arises when the assignment of a morphological property is triggered in an earlier level of structure in such a manner that it takes precedence over surface or default properties. Thus, the passive in Halkomelem can be accommodated with the usual syntactic mechanisms without resort to analyses involving impersonals, inverse structures, or the like.

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