A-Subjects and Control in Halkomelem

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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.

1. 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

niʔ	q̓ʷaqʷ**-ət**-əs	kʷθə	sx̌̓iʔx̌̓qəɬ	łə	słeniʔ	ʔə	kʷθə	sq̓əməl̓[3]
aux	*club-**tr**-3erg*	*art*	*child*	*art*	*woman*	*obl*	*art*	*paddle*

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

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he University of Victoria).

[2]The sorts of syntactic control structures found in languages such as English are largely not present in Halkomelem. Notice that in the single case of syntactic control discussed below, eit

er a-subject can be linked.

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

art = article
asp = aspect (roughly, perfect)
aux = auxiliary
ap = antipassive
cont = continuative (imperfective) aspect
cs = causative
decid = deciderative
erg = ergative suffix
evid = evidentual
fut = future
l.c.tr = limited control transitive
lnk = linker
nom = nominalizer
obj = object
obl = oblique case marker
pas = passive
pl = plural
pos = possessor
sg = singular
sub = subject
tr = transitive

Proceedings of the 7th International HPSG Conference, UC Berkeley (22-23 July, 2000).
Dan Flickinger and Andreas Kathol (Editors).
2001. CSLI Publications. http://csli-publications.stanford.edu/

b Passive Verb

niʔ	q̓ʷaqʷ**-ət-əm**	ʔə	kʷθə	sx̌̓iʔx̌̓qəł	łə	słeniʔ	ʔə
aux	*club-**tr-pas***	*obl*	*art*	*child*	*art*	*woman*	*obl*

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

(3) *-nəxʷ* Limited Control Transitive Verb

a Active Verb

niʔ	q̓ʷəqʷ**-nəx**ʷ-əs	kʷθə	sx̌̓iʔx̌̓qəł	łə	słeniʔ	ʔə
aux	*club-**l.c.tr**-3erg*	*art*	*child*	*art*	*woman*	*obl*

kʷθə sq̓əmə̓l.
art paddle
'The child accidentally clubbed the woman with the paddle.'

b Passive Verb

niʔ	*q̓ʷəqʷ**-n-əm***	*ʔə*	*kʷθə*	*sx̌̓iʔx̌̓qəł*	*łə*	*słeniʔ*	*ʔə*
aux	*club-**l.c.tr-pas***	*obl*	*art*	*child*	*art*	*woman*	*obl*

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

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 indirect 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 indirect 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

[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.

really a syntactic argument when it is present, but an adjunct. We state this in the following relationship.[5]

(6) Halkomelem Passive Lexical Rule

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

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.

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[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. We assume the 'result' is identical to the 'source' except where (i) information is added in the result or (ii) information spelled out in the source is not mentioned in the result. In the latter case, the specification is absent from the result. When information in the result unifies with the source, the source information appears in the result. When information in the result conflicts with the source, the source information does not appear in the result.

[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.

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

$$\begin{bmatrix} \textit{pas-vb} & \\ \text{SUBJ} & \langle [1] \rangle \\ \text{COMPS} & [2] \\ \text{ARG-ST} & \langle [1]_i, \langle \text{pro}, \text{pro}_i \rangle \oplus [2] \rangle \end{bmatrix}$$

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)

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

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]

2. 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.

2.1. 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.

2.2. 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.

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

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

niʔ	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

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

'The man barbecued some salmon.'

2.3. 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 indirect 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).

3. 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. (8) vs (9). We show that passive agents are not syntactic subjects, but the status of passive patients is less obvious.

3.1. Case: Straight vs. Oblique. As noted above, subjects and objects are straight case while notional objects of intransitives are indirect, 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

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

***'**The man hit the bear.'*

b Passive Clause

niʔ	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.

3.2. 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

niʔ	šiʔšk̓ʷaṁ	tᶿə	cq̓iǰ	speʔəθ
aux	*swim-cont*	*art*	*black*	*bear*

'The black bear is swimming.'

(13) Intransitive Subject Extraction: Unmarked

tᶿə	cq̓iǰ	speʔəθ	[niʔ	šiʔšk̓ʷaṁ]
art	*black*	*bear*	*aux*	*swim-cont*

'the black bear that is swimming'

(9) Transitive Clause

niʔ	q̓ʷəl-ət-əs	tᶿə	swəy̓qeʔ	tᶿə	sce:łtən.
aux	*barbecue-tr-3erg*	*art*	*man*	*art*	*salmon*

'The man barbecued the salmon.'

(14) Transitive Object Extraction: Unmarked

tᶿə	sce:łtən	[niʔ	q̓ʷəl-ət-əs	tᶿə	swəy̓qeʔ]
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	swəy̓qeʔ	[niʔ	q̓ʷəl-ət	tᶿə	sce:łtən]
art	*man*	*aux*	*barbecue-tr-**Ø***	*art*	*salmon*

'the man that barbecued the salmon'

In contrast, oblique objects (indirect 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

niʔ	q̓ʷəl-əm	tᶿə	swəy̓qeʔ	ʔə	k̓ʷ	sce:łtən.
aux	*club-ap*	*art*	*man*	*obl*	*art*	*salmon*

'The man barbecued some salmon.'

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

kʷθə	sce:łtən	[niʔ	**s-**q̓ʷəl-əm**-s**	tᶿə	swəy̓qeʔ]
art	*salmon*	*aux*	***nom**-barbecue-ap-**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

niʔ	q̓ʷaqʷ-ət-əm	łə	słeniʔ	ʔə	kʷθə	sq̓əməl̓.
aux	*club-tr-pas*	*art*	*woman*	*obl*	*art*	*paddle*

'The woman was clubbed with the paddle.'

(18) Passive Patient Extraction

słeniʔ	łə	niʔ	q̓ʷaqʷ-ət-əm	ʔə	kʷθə	sq̓əməl̓.
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

niʔ	pən-ət-əm	ʔə	łə	słeniʔ	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:	*słeniʔ	łə	niʔ	(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.

3.3. Word Order. In brief, word order is not conclusive in determining 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 indirect (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

niʔ	pas-ət-əm	ʔə	tᶿə	swəy̓qeʔ	tᶿə	speʔəθ.
aux	*hit-tr-pas*	*obl*	*art*	*man*	*art*	*bear*

'The bear was hit by the man.'

(21) Passive Clause: Patient Preceding Agent.

niʔ	pas-ət-əm	tᶿə	speʔəθ	ʔə	tᶿə	swəy̓qeʔ.
aux	*hit-tr-pas*	*art*	*bear*	*obl*	*art*	*man*

'The bear was hit by the man.'

3.4. Summary of 3.1-3.3. The fact that passive agents are in the indirect case (oblique) 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.

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

3.5.1. 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

ʔi	**cən**	ceʔ	q̓ʷəl-ət	tᶿə	sce:łtən.
aux	***1sub***	*fut*	*barbecue-tr*	*art*	*salmon*

'I will barbecue the salmon.'

(23) Subject Clitic Follows Clause-Initial Main Verb

q̓ʷəl-ət	**cən**	ceʔ	tᶿə	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. (Third person subject is then doubly marked when the verb is transitive, unless the clitic would fall on the transitive verb.)

Table 2. Subordinate Clause Subject Clitics

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

3.5.2. 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	-θam̓š	-t-al̓x^{w}
SECOND PERSON	-θaməә	-t-alə
THIRD PERSON	-t (i.e., Ø)	

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

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

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

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

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

	SINGULAR	PLURAL
FIRST PERSON	-n-am̓š	-n-al̓x^{w}
SECOND PERSON	-n-aməә	-n-alə
THIRD PERSON	-nəx^{w} (i.e., Ø)	

3.5.3. 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	-θaməә-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 Limited Control Transitive -*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	

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

ni$^{\text{ʔ}}$ pas-**əθam̓š**-əs t$^{\theta}$ə swəy̓qeʔ.
*aux hit-**tr+1obj**-3erg art man*
***'**The man hit me.'*

(27) Passive Clause with First Person Patient

ni$^{\text{ʔ}}$ pas-**əθel-əm** ʔə t$^{\theta}$ə swəy̓qeʔ.
*aux hit-**tr+1sg-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.

3.5.4. 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. 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).

(28) Object Extraction: Doubling

ʔe:n̓θə ʔi ləm-**n-am̓š**-əs t$^{\theta}$ə meʔ.
be-I *aux see-l.c.tr-**1obj**-3erg art grandpa*
'It was I grandpa saw.'

(29) Subject Extraction: Deletion

ʔe:n̓θə ni$^{\text{ʔ}}$ ləm-nəx^{w} t$^{\theta}$ə meʔ.
be-I *aux see-l.c.tr art grandpa*
'It was I that saw grandpa .'

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

nəwə niʔ ləm-n**-am(ə)**-eːn̓.
be-you *aux* *see-l.c.tr-**2obj**-1su*
'It was you that I saw.'

(31) Deletion Strategy for Object Fails

not: *nəwə ʔi ləm-nəxʷ-eːn̓.
be-you aux see-l.c.tr-1su
for: It was you that I saw.

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

(32) Object Extraction: Doubling

ʔeːn̓θə ʔi ləm-n**-am̓š**-əs tᶿə meʔ.
be-I *aux* *see-l.c.tr-**1obj**-3erg* *det* *grandpa*
'It was I grandpa saw.'

(33) Passive Patient Extraction: Doubling

ʔeːn̓θə ʔi ləm-n**-el-**əm ʔə-x̌̓ meʔ.
be-I *aux* *see-l.c.tr-**1sg**-pas* *obl-det* *grandpa*
'It was I that grandpa saw.'

(34) Deletion Strategy for Passive Patient Fails

not: *ʔeːn̓θə ʔi ləm-n-əm ʔə-x̌̓ meʔ.
be-I aux see-l.c.tr-pas obl-det grandpa
for: 'It was I that grandpa saw.'

3.6.6. 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.

3.6. Conclusions. This section provides evidence that passive agents are not subjects: they are not accessible to extraction, unlike subjects, they are in the indirect 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.

4. 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.

4. 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.

4.2. 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	ʔu	**č**	niʔ-**əx**^{w}	ǩiʔ-nəx^{w}	k^{w}θə	qəṅqəṅʔ
neg	*ques*	***2su***	*aux-**2su***	*catch-l.c.tr*	*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**	ǩiʔ-n-**amə**-t.
not	***2su***	*catch-l.c.tr-**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

sḵ^{w}ey	k^{w}	s-ǩiʔ-n-e:l-t.
cannot	*art*	*nom-catch-l.c.tr-1-pas (subordinate passive)*

'They can't catch me.'

(38) Nominalization: 3rd or no Subject marking

sḵ^{w}ey	ḵ^{w}ə	**nə**-s-ǩiʔn-**e:l**-t.
cannot	*det*	***1pos**-nom-catch-l.c.tr-**1**-pas (subordinate passive)*

'They can't catch me.'

The conditions under which this optional doubling require further investigation. 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.

4.3 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 4.2., namely that the passive patient may optionally be signalled by a subject marker in spite of the verb morphology.

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.

5. 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'.

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.

5.1. 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	słeni?
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	słeni?	?ə-x̌̓	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	?aɬ̓ə	sq̓-əlcəp-min-t-al-əm?
go	*dubitive*	*curious*	*split-wood-appl-tr-1pl-pass*

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

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

nem̓	yəxʷ	?aɬ̓ə	sq̓-əlcəp-min-θa:-m?
come	*dub*	*curious*	*split-wood-appl-tr+2sg-pass*

'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. Similar facts seem to hold for Tzotzil (Aissen 1984).

(44)

7ech'	7ak'-b-at-ik-on	jimoton	y-u7un	kamikotak.
PAS	*GIVE-io-pas-subj-B1*	*MY PRESENT*	*A3-BY*	*friends*

'My friends passed by to give me my present.'

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. Space limits prevent us from discussing unaccusatives, but generally they are rejected

in this construction.[8] 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 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.

(45) Control Relation in Motion Auxiliary Verbs

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

5.2. 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 słeniʔ.
*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 słeni' ʔə-ƛ̓ 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.'

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

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.

5.3. '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) meʔ-š-**stənaṁət** (Leslie 1979, 39: 111a)
*take.off-tr-**pretend***
'pretend to take it off'

(53) Desiderative Linked to Active Subject

niʔ cən kʷən-ət-**stənaṁət**
*aux 1sub take-tr-**pretend***
'I pretended to take it.'

(54) Desiderative Linked to Active Subject

ṁiʔ č ṗeʔ 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, unlike simple transitives. And when it does, it links to the actor, not the undergoer.

(55) Desiderative Linked to Passive Agent

ṫ$^{\theta}$iqʷ-əs-θel-əm-**stənaṁət** (Leslie 1979, 38:106)
*punch-face-tr+1sg-pas-**pretend***
'He pretended to hit me in the face.'

(56) Desiderative Linked to Passive Agent

niʔ kʷən-əθel-əm-**stənaṁət** ʔə-x̌̇ John
*aux take-tr+1sg-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.

Thus this construction seems essentially the same as the desiderative.

5.4. Conclusions about Clause-Internal Control. Our account of control in motion auxiliary constructions in (60) involves argument inheritance. As the other two constructions are morphological rather than syntactic, we leave open the issue of argument inheritance.

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.

6. Interclasual Control. Finally we consider a control construction (or, alternatively, a case of raising) in which a higher psychological/cognition verb *ɂcət* 'figure, wonder' (in various aspectual forms) controls an argument of its complement clause. We believe that this construction offers fairly convincing exemplification of a construction in which the controllee is either a 'matrix' or an embedded a-subject.[9]

As we previously noted, the HPSG control story in Pollard and Sag (1994) centers on the role of embedded subject, 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 in the control constructions already discussed that the controllee may be a passive agent which is a non-subject. Similar facts obtain in the data of this section as well. Further, we question whether a solution in which an embedded predicate's subject is a reflexive is viable, since we will see that the controllee is morphologically marked in the lower clause and it is not reflexive.

We begin the discussion with our proposal for the argument structure of control predicates in Halkomelem.

(57) Object Control Verb *ɂcət* 'figure, wonder'

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

We are making the following claims.

- The higher verb selects an object 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 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.

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[9]Davis (1980) reports on a similar phenomenon in another Coast Salish language, Sliammon. However, raising is restricted to (surface) subjects, which include passive patients. Both Davis (1980) and Blake (1997) present several control/raising verbs. It is possible that verbs of perception work this way in Halkomelem, although we have found that control is optional—even with first or second person matrix objects—perhaps indicating that the subordinate clause can either be a controlled complement or simply an adjunct. Halkomelem verbs which are roughly equivalent to classical control verbs in English show no obligatory control, perhaps indicating that the subordinate clause can either be a controlled complement or simply an adjunct.

(58) Without Control.

ʔi cən xeʔxci-t [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

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

John]
John
'I'm wondering about Bob if he is being helped by John.'

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

On our account, 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.[10] 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 xeʔxcit kʷθə John [ʔəẇ-ʔi-ʔəs leḷəṁ-ət-əs tᶿə
aux 1sub wonder-tr art John lnk-aux-3sub look(cont)-tr-3erg det

Bob]
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.

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

*ʔi cən xeʔxcit kʷθ-əẇ-nił [ʔəẇ-ni-:n ceʔ x̌̓əwəł
aux 1sub wonder-tr det-lnk-3emph lnk-aux-1sub fut too

ləm-nəxʷ]
look-l.c.tr
For: 'I'm wonder if I will see that one again.'

[10]Davis (1980) reports that passive agents are not controllees. As we note below, one Halkomelem speaker does not accept passive agent controllees either.

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	ceʔ	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	ceʔ	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	x̌əx̌c-it	[ʔəẇ-ʔi-ʔəs	ləṁləṁ-əθa:-ṁ	ʔə	tʰə	swəẏqeʔ].
aux	*1sub*	*wonder-tr*	*lnk-aux-3sub*	*look(pl)-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	x̌əx̌ci-θaṁə	[ʔəẇ-ʔi-ʔəxʷ/-ʔəs	leɬəṁ-əθa:-ṁ	ʔə
aux	*1sub*	*wonder-tr.2obj*	*lnk-aux-2su/-3sub*	*look(cont.)-tr.2-pas*	*obl*

tʰə	swəẏqeʔ].
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	x̌ec-θaṁš	[ʔəẇ-ʔi-ʔəs	ceʔ	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?

6.1. The Status of the Matrix Object. It is not material to our discussion whether we are looking at equi or raising so we will not persue the point. But a more 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	leɬəṁ-ət-əs
aux	*1sub*	*wonder-tr.*	*art*	*John*	*lnk-aux-3sub*	*look(cont.)-tr-3erg*

tʰə	Bob]
art	*Bob*

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

(69) Matrix Object Extaction

nił	ɬwet	k̓ʷə	ʔi	x̌eʔx̌ci-t-əxʷ	[ʔəẇ-ʔi-ʔəs	leɬəṁ-ət-əs
3-emp	*who*	*art*	*aux*	*wonder-tr.-2sub*	*lnk-aux-3sub*	*look(cont.)-tr-3erg*

tʰə	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.)

6.2. 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 and this tells us several things.

The fact that it 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 in our proposal above (57). Thus this section does not offer definitive evidence for (8) vs. (9).

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.

We should note, finally, that 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.

7. 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.

7.1. 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 applicative or applicative-like morphology.

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.

(70) A-Transitives

[*a-trans-vb*] → [ARG-ST <NP, NP> ⊕ 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.

(71) 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.)

(72) Transitive *-t* Lexical Rule

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

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

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

$$\begin{bmatrix} m\text{-}trans\text{-}vb & \\ \text{MORPH} & \begin{bmatrix} \text{AFF} & \begin{bmatrix} trans\text{-}suf & \\ \text{FORM} & ə\,t \end{bmatrix} \\ \text{STEM} & q̓ʷaqʷ \end{bmatrix} \\ \text{SYNSEM} & \begin{bmatrix} \text{SUBJ} & \langle [1]\text{NP[CASE: strt]} \rangle \\ \text{OBJ} & \langle [2]\text{NP[CASE: strt]} \rangle \\ \text{COMPS} & \langle [3]\text{NP[CASE: ind]} \rangle \\ \text{ARG-ST} & \langle [1], [2], [3] \rangle \end{bmatrix} \end{bmatrix}$$

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.[11]

(74) First Person Object Agreement Rule

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

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.

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

[11]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.

(6) Halkomelem Passive Lexical Rule

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

Consider the first person singular passive. According to (74), 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.

(75) Exemplifying First Person Singular Passive

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

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

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.)

7.3. Antipassives. Consider now Halkomelem antipassives, as in (10), repeated here.

(10) Antipassive -*m*

niʔ	q̓ʷəl-əm	tθə	swəy̓qeʔ	ʔə	k̓ʷ	sce:łtən.
aux	*club-ap*	*art*	*man*	*obl*	*art*	*salmon*

'The man barbecued some salmon.'

Antipassives are formally intransitive. See Section 3 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).

(76) Antipassive -*m* Lexical Rule

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

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 indirect case, marked by the oblique particle.

(77) Antipassive Arguments Mapped to Valence Features

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

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

(78) Stacked Antipassive Suffixes

q̓ʷəl-əm-els	cən	ceʔ	ʔə	k̓ʷ	sce:łtən	ʔəẇ-kʷeyəl-əs.
bake-ap-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.

(79) -*els* Antipassive Rule

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

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 (57) which we have also stated disjunctively.

8. Summary and Conclusions. Possibly an HPSG description. 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 as, for example Perlmutter (1984), Schachter (1976), or our control construction in Section 7. Rather, their analysis of universal passive, which posits a complex argument structure, easily accounts for Halkomelem. Control facts in Halkomelem, with examples drawn from both morphological and syntactic constructions, can be added to the catalog of phenomena that support this view of the passive.

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