Multiple Antipassives in Halkomelem Salish

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1. Introduction

This paper is an exploration of antipassive constructions in Halkomelem, a Central Coast Salish language of British Columbia. Data are from original fieldwork on Həl̓q̓əmín̓əm̓, the Island dialect of Halkomelem, currently spoken by around one hundred people. In Halkomelem, a polysynthetic language, words usually contain several morphemes. We have been investigating the morphosyntactic properties of the over one hundred affixes in Halkomelem. This paper reports on two of these affixes, the middle suffix and the activity suffix, and their use in antipassive constructions.

Halkomelem has two different morphological means of marking antipassives. This paper explores the similarities and differences between the two antipassive constructions. Other languages of the world have been shown to have two or more antipassives. Halkomelem antipassives conform to previous generalizations about the form and function of antipassives (e.g. Foley and Van Valin 1984). However, Halkomelem shows one phenomenon that to our knowledge has never been discussed: Halkomelem allows the two antipassives to stack. We give an analysis of stacked antipassives and discuss its implications for the architecture of morphosyntactic theory.

2. The Two Halkomelem Antipassives

We give a transitive clause in (1a) and its antipassive counterpart in (1b).[1]

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[1]The following abbreviations are used in glossing the Halkomelem examples: 1 = first person, 2 = second person, 3 = third person, ACT = activity, APPL = applicative, AUX = auxiliary, BEN = benefactive, COMP = complementizer, CONT = continuative, CS = causative, DET = determiner, EMPH = emphatic, ERG = ergative, FUT = future, MID = middle, NOM = nominalizer, OBJ = object, OBL = oblique, POS = possessive, PL = plural, SUB = subject, SSUB = subordinate subject, TR = transitive.

(1)   a.   niʔ   q̓ʷəl-ət-əs   t̓θə   sce:ɬtən.
             AUX   bake-TR-3ERG   DET   salmon
             'He cooked/barbecued the salmon.'

       b.   niʔ   q̓ʷəl-əm   ʔə   t̓θə   sce:ɬtən.
             AUX   bake-MID   OBL   DET   salmon
             'He cooked/barbecued the salmon.'

The verb in the transitive clause in (1a) contains a transitive suffix *-t*, which marks controlled transitive action (Hukari 1976) and the 3rd person ergative agreement suffix. Third person absolutives are Ø-marked in main clauses. Core arguments of the verb are unmarked for case, though they are preceded by determiners signaling degree of distance from the speaker. In contrast, there is no transitive suffix on the verb in (1b); instead the middle suffix *-m (~eʔəm, ~əm)* appears, and the patient appears in the oblique case.[2] The suffix *-m* is used for a range of constructions, including logophoric reflexives, personal reflexives, main-clause passives, and various monadic intransitive constructions, including verbs of motion and body care. Gerdts and Hukari (1998) gives an analysis of the middle, arguing for personal reflexive as the source of this construction. Kroeber (1999) discusses the pan-Salish use of the suffix *-m* in antipassives.

The second antipassive uses the activity suffix *-els (~əl̓s)*. Example (2a) gives a transitive clause and (2b) gives the corresponding antipassive.

(2)   a.   naʔət   qʷəs-t-əs   t̓θə   ƛ̓eɬəm̓   sce:ɬtən.
             AUX   go.in.water-TR-3ERG   DET   salted   salmon
             'She put the salted fish in water.'

       b.   naʔət   qʷs-els   ʔə   t̓θə   ƛ̓eɬəm̓   sce:ɬtən.
             AUX   go.in.water-ACT   OBL   DET   salted   salmon
             'She soaked the salted fish.'

Again, the antipassive lacks transitive marking and 3rd person ergative agreement, and the patient in the antipassive appears in the oblique case.

There seems to be very little difference in meaning between the transitive clauses and the antipassive clauses. Various person/animacy restrictions come into play, as discussed in Gerdts (1988a, 1988b). As with antipassives in many other languages, the oblique-marked object in Halkomelem antipassives is usually third person and inanimate. It can be definite or indefinite, though often it has a non-individualized or non-specific meaning.

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[2]We use the term 'patient', without prejudice as to animacy, roughly in the sense of Dowty's (1991) proto-patient. The reader may substitute 'undergoer' or 'notional object'. Gerdts has used the terms 'initial object' and 'theme' in previous work, but we reserve the term 'theme' for locatum or entity in motion, following Jackendoff (1991) and others.

2.1 Antipassive Syntax

The two antipassives are syntactically identical. Gerdts (1998b) presents evidence that antipassives are syntactically intransitive. Causatives provide one argument for this. Causatives can be formed on intransitive bases (3), but not on transitive bases (4).

(3)   niʔ   cən   ʔiməš-stəxʷ   tθə   swiẃləs.
         AUX   1SUB   walk-CS+TR+3OBJ   DET   boy
         'I made the boy walk.'

(4)   *niʔ   cən   q̇ʷəl-ət-stəxʷ   łə   sɬeniʔ   (ʔə)   kʷθə   səplil.
         AUX   1SUB   bake-TR-CS+TR+3OBJ   DET   woman   OBL   DET   bread
         'I had the woman bake the bread.'

Antipassives can form causatives as we see in (5) and (6); the agent of the antipassive is the object of the causative.

(5)   niʔ   cən   q̇ʷəl-əm-stəxʷ   łə   sɬeniʔ   ʔə   tθə   səplil.
         AUX   1SUB   bake-MID-CS   DET   woman   OBL   DET   bread
         'I had the woman bake the bread.'

(6)   niʔ   cən   qʷs-els-stəxʷ   łə   sɬeniʔ   ʔə   tθə   ƛ̓eɬəm̓   sce:ɬtən.
         AUX   1SUB   go.in.water-ACT-CS   DET   woman   OBL   DET   salted   salmon
         'I had the woman soak the salted salmon.'

As Gerdts (1988b) argues, the semantic agent of an antipassive is a surface absolutive. In terms of person agreement, Halkomelem is a split ergative language. Only 3rd person shows ergative/absolutive agreement, and only in main clauses. But there are several syntactic constructions that select absolutives, and antipassives feed these constructions. For example, Halkomelem has a constraint that a sole NP argument in a clause with only third person agreement is interpreted as an absolutive. So in the transitive clause in (7), the sole NP argument is the object.

(7)   niʔ   q̇ʷəl-ət-əs   łə   sɬeniʔ.
         AUX   bake-TR-3ERG   DET   woman
         !!'He cooked/barbecued the woman.'
         not: 'The woman cooked (something).'

In contrast, the sole NP in the antipassive in (8) is the subject.

(8)   niʔ   q̇ʷəl-əm   łə   sɬeniʔ.
         AUX   bake-MID   DET   woman
         'The woman cooked (something).'
         not: !!'He cooked/barbecued the woman.'

Also, as Gerdts (1988b) notes, only absolutives link to preverbal quantifiers, and only absolutives allow their possessors to extract.

       Evidence that the semantic patient is a surface "oblique object" comes from data involving extraction (Gerdts 1988b, Hukari 1976, 1977, 1979, 1980). We give a summary of extraction facts in (9).

(9)   Extraction (wh-questions, relative clauses, clefts, pseudo-clefts)
           a. No special morphology is used to extract
               • ergatives (ergative agreement is deleted)
               • absolutives
           b. Nominalization with *s-* is used to extract
               • patients of antipassives
               • themes of applicatives
           c. Nominalization with *š(xʷ)-* is used to extract
               • obliques (location, direction, instrumental, manner, stimuli)

Core nominals (9a) extract with no special morphology. But oblique nominals extract via nominalization. Oblique objects (9b) extract with *s-* while true obliques (9c) extract with the prefix *š(xʷ)-*. Examples (10) and (11) show the extraction of the patient of both types of antipassives.

(10)   stem   ƙʷə   niʔ   s-qʷs-eʔəm-s   łə   słeniʔ?
       what   DET   AUX   NOM-go.in.water-MID-3POS   DET   woman
       'What did the woman put in the water/soak?'

(11)   stem   ƙʷə   niʔ   ʔən̓-s-x̌əl̓-els?
       what   AUX   AUX   2POS-NOM-write-ACT
       'What did you write?'

The predicate is nominalized with the prefix *s-*. The subject of the nominalization appears as a possessor.

2.2 Antipassive Morphology
There are three ways to mark antipassives: *-els* (12a), *-m* (12b)*,* or Ø (12c).

(12)   a.   q̓ʷqʷels 'club, bat', ɫəmċels 'pick (fruit)', t̓θasels 'hit with hammer', yəxʷels 'open', q̓p̓els 'tie', ʔak̓ʷels 'hook', ləw̓els 'shuck (shellfish)', məkʷels 'pile', ɫčels 'cut', ɫap̓q̓ʷels 'boil', məq̓els 'poke into ground'

b.   pən̓əm 'plant, bury, lən̓əm 'weave', mək̓ʷeʔəm 'gather', ʔeʔəm 'give', q̓ik̓ʷəm 'bite', mim̓iət̓θəm 'mashing' , k̓ʷesəm 'heat, burn', ʔa:m 'call for'

c.   ʔəɫtən 'eat', qaʔqaʔ 'drink', čəkʷx̌ 'fry', qʷix̌ʷ 'miss (a target)', səw̓q̓ 'seek'

The choice between these is basically a lexical one. *-els*, the activity suffix, is the most popular: approximately 90% of the verbs in our sample take *-els*. Only about 15% of verbs take the middle *-m*. There are around a dozen very common verbs that can form antipassives with Ø morphology. We set aside this last class for the purposes of this paper. Some verbs allow two or three different forms. For example, we see the verb *qʷəs* 'fall in the water' can take either the activity (13) or middle suffix (14).

(13)   naʔət   qʷs-els   ʔə   t̓θə   x̣̓eɫəm̓   sce:ɫtən.
       AUX   go.in.water-ACT   OBL   DET   salted   salmon
       'She soaked the salted fish.'

(14)   niʔ   qʷs-eʔəm   ʔə   t̓θə   x̣̓eɫəm̓   sce:ɫtən.
       AUX   go.in.water-MID   OBL   DET   salted   salmon
       'She soaked the salted fish.'

Some more examples are given in (15). The first column shows the verb root: the root is unaccusative with a patient-oriented meaning. The next two columns show the middle and the activity suffixes. The last column shows the corresponding transitive.

(15)

root	middle *-m*	activity *-els*	transitive *-t*
qʷəs 'fall in water'	qʷseʔəm 'soak'	qʷsels 'soak'	qʷsət 'put in water'
k̓ʷəɫ 'spill'	k̓ʷɫeʔəm 'pour'	k̓ʷɫels 'pour'	k̓ʷɫet 'pour it'
cəq̓ʷ 'pierced'	cq̓ʷeʔəm 'poke through'	cq̓ʷels 'poke through'	cq̓ʷat 'pierce it'
q̓əp 'collected'	q̓peʔəm 'collect'	q̓pels 'collect'	q̓pət 'collect it'

In fact, we see from an examination of a full-range of data that antipassive and transitive suffixes are closely linked. In our database of over 500 verb bases tested in combination with various suffixes and also in additional sporadic data from the *Hul'qumi'n'um' Dictionary* (Hukari and Peter 1995), all verbs that can take the transitive suffix *-t* can form an antipassive. Many stative and unergative verbs do not take *-t*, and these also do not form antipassives. Furthermore, every verb in our sample that takes antipassive *-m* takes transitive *-t*. And verbs that take antipassive *-els* usually take transitive *-t*. There is one small class of exceptions to the last generalization. A dozen motion verbs that form transitives with the causative suffix *-stəxʷ* also form antipassives in *-els*:[3]

(16) ʔəši:ls 'paddle with something, tow', camels 'bring them up',
šqʷi:ls 'take across to the other side', ʔənəxʷels 'bringing to a stop',
nəẃels 'bring in'

These motion verbs are exceptional in other ways (Gerdts and Hukari 2000).

Based on these distributional facts, we conclude that, although antipassives are syntactically intransitive, they are semantically transitive. A notional object, whether stated or implied, is always part of the argument structure.

2.3 Antipassive Semantics

So far we have talked about ways in which the two antipassives are similar. We turn now to a way in which the two antipassives are different: they seem to have slightly different meanings. Both antipassive suffixes can be used to make the agent an absolutive. The agent is then accessible to constructions that target absolutives, as discussed in section 2.2 above. Also, both antipassives are used to express non-specific, de-individualized patients, or to avoid expressing a patient.

However, the *-els* activity suffix often brings an additional meaning. It is used to emphasize the action. The event is often a job-like activity that will take time and effort. Sometimes the agent is playing a role in a social situation. He/she is the delegated doer of the event. For many forms with the activity subject, certain patients are evoked even when they are not expressed. The patient is fully understood from the cultural context of the activity (see also Galloway 1993:252–255, Hukari 1979, Suttles in prep.):

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[3]Van Eijk (1997:116) has noted the same sort of small exceptional class of antipassives in Lillooet, a nearby Interior Salish language.

(17) q̓pels   'collect' [when going around collecting money]
      wənels   'throw' [when throwing out money or blankets in the bighouse]
      nəẇ els   'bring in' [when showing a picture for ceremonial purposes in the
                       bighouse]
      ɫq̓els   'lay (it) down' [when making a down payment or donating blankets]
      θəyqʷels   'dig' [when digging a grave for the funeral]
      yəqʷels   'burn' [ritual burning of the clothes of the deceased]
      pepək̓ʷəİs   'smoking' [when smoking salmon for storing]
      ƛ̓əyq̓els   'push down' [when kneading bread]
      yək̓ʷels   'break' [when breaking old plates in ceremony for black faces]
      ɫəẇels   '(shaman) working a cure', 'escape being guessed right on' [in the
                       bone game]

       In various languages, antipassive is correlated with progressive or continuative aspect. For example, Blake (1987) notes that antipassive in Australian languages is often associated with imperfect, desiderative, or habitual aspect. Adams and Marlett (n.d.) note that the Madija antipassive is more likely to be used when the continuative aspect of the action is emphasized. This is not exactly what is going on in Halkomelem, since antipassives cross-cut the aspect paradigm. Perfective or progressive antipassives are allowed. Nevertheless, the job-like semantics often evoked by the suffix *-els* seems to be a similar phenomenon.
       We can see the difference in semantics in the way the two antipassives are nominalized. Using an antipassive base to form a noun is quite common in Halkomelem. In (18), nouns formed with the *s-* prefix express a nominal that corresponds to the patient of the antipassive.

(18) Noun   Verb
      sƛ̓cels   'design, pattern'   ƛ̓cels   'make a design or pattern'
      sq̓pels   'collection (of money)'   q̓pels   'gather something'
      spəṅəm   'seed, something planted'   pəṅəm   'plant, bury'
      stiləm   'song'   t̓iləm   'sing'

The activity suffix is also frequently used in instrumental nouns formed with the oblique prefix *š(xʷ)-*. Since the suffix *-els* puts a job-like cast on an event, it makes sense that it would be used to create words for tools.

(19) šċatq̓ʷəİs 'grinder', šček̓ʷx̌əİs 'frying pan', šxʷiʔqəİs 'baking pan',
      sɫemċəİs 'picking machine', šseq̓əİs 'shake splitter', šxʷaxʷək̓ʷəİs
      'sander', šxʷeʔt̓θəİs 'eraser', šxʷiʔx̌wəİs 'back-hoe'.

We have found no examples of the middle suffix being used in this fashion. So we find, then, that the *-els* suffix often adds a special job-like meaning to an event, while the middle suffix does not.

3. Stacked Antipassives

The following examples show that in some cases Halkomelem allows antipassives in which both the middle suffix and the activity suffix appear.

(20) q̓ʷəl-əm-els   cən   ce̓   ʔə   k̓ʷ   sce:łtən   ʔəw̓   kʷeyəl-əs.
      bake-MID-ACT   1SUB   FUT   OBL   DET   salmon   COMP   day-3SSUB
      'I am going to barbeque fish tomorrow.'

(21) ʔi   ct   pəpən̓-əm̓-əl̓s   ʔə   kʷθə   sqewθ.
      AUX   1PL.SUB   plant+CONT-MID-ACT   OBL   DET   potato
      'We are doing the planting of the potatoes.'

(22) k̓ʷs-eʔəm-els   ʔə   t̓θə   maʔəqʷ!
      burn-MID-ACT   OBL   DET   water fowl
      'Do the job of singeing the water fowl!'

Other examples are given in (23).

(23) ƛ̓x̌eʔəmels 'warm', x̌ələmels 'write', ʔak̓ʷeʔəmels 'hook ',
      mit̓θeʔəmels 'mashing', k̓ʷł-eʔəm-els 'pour'

The opposite order of stacking—the activity suffix inside the middle suffix—is not allowed, as the data in (24) show.

(24) *q̓ʷəl-els-əm, *pəpən̓-əl̓s-əm̓, *k̓ʷs-els-(eʔ)əm

When viewed from a semantic perspective, double antipassives are not unexpected, since the two suffixes have slightly different lexical restrictions and different semantic functions. Adding *-els* to a form that already has *-m* adds the additional meaning of a job-like activity, as we see by contrasting the translation of the simple antipassive in (25) to the stacked antipassive in (26).

(25) niʔ   k̓ʷł-eʔəm   ʔə   k̓ʷ   ti   t̓θə   John.
      AUX   pour-MID-ACT   OBL   DET   tea   DET   John
      'John poured some tea.'

(26) niʔ   k̓ʷł-eʔəm-els   ʔə   k̓ʷ   ti   t̓θə   John.
      AUX   pour-MID-ACT   OBL   DET   tea   DET   John
      'John served some tea.'

In cases like (20), the verb root takes *-em* (*q̓ʷəl-əm*) but not *-els* (*q̓ʷəl-els*). The presence of the *-m* makes the *-els* possible.

Double antipassives have exactly the same surface syntax as single antipassives. They are intransitive, as the causatives in (27) and (28) show.

(27) niʔ   cən   qʷs-eʔəm-els-stəxʷ   łə   sɬeniʔ.
      AUX   1SUB   go.in.water-MID-ACT-CS   DET   woman
      'I had the woman do the soaking.'

(28) niʔ   cən   x̌əl̓-əm-els-stəxʷ   θə   naːs   ʔə   θə-nə   pipə.
      ACT   1SUB   write-MID-ACT-CS   DET   nurse   OBL   DET-1POS   paper
      'I had the nurse fill out my form.'

Recall that only intransitives form causatives in Halkomelem. Also the data in (29) and (30) show that the patient in the double antipassive is an oblique object that extracts via *s*-nominalization.

(29) stem   ʔal̓ə   k̓ʷə   niʔ   s-qʷs-eʔəm-els-s   łə   sɬeniʔʔ.
      what   EMPH   DET   AUX   NOM-go.in.water-MID-ACT-3POS   DET   woman
      'Whatever did the woman soak?'

(30) stem   ʔal̓ə   k̓ʷə   niʔ   s-k̓ʷɬ-eʔəm-els-s   tθə   John?
      what   EMPH   DET   AUX   NOM-pour-MID-ACT-3POS   DET   John
      'Whatever did John serve?'

Thus, adding a second antipassive morpheme has no syntactic consequences.

Stacked *-els* presents a problem for the generalization we gave earlier. We said that *-els* and *-m* work like detransitivizers. They attach to transitives. But in forms like *q̓ʷəl-əm-els* in (20), the activity suffix is attached to an intransitive base. So we seem to have a violation of our previous generalization. Actually the generalization that we need to accommodate the additional facts is quite straightforward. What *-els* is looking for is not a transitive base to attach to, but a verb root with a transitive argument structure. This claim is supported by evidence from lexical suffixes, the Salish equivalent to noun incorporation:

(31) yə-kʷən-as-əls   'steer horses, drive car' [hold face]
      šašəm-aʔqʷ-els   'smoking fish heads' [smoke-dry head]
      k̓ʷš-as-els   'count money' [count round objects]
      xʷ-tθəq̓ʷ-s-els   'punch in face' [punch face]
      ʔəx̌-iws-els   'scrape ducks' [scrape body]
      kʷaxʷ-əw̓txʷ-əls   'knock on houses' [knock building]
      tθəx̌ʷ-ətθ-el̓s   'washing clothes' [wash garment]

In (31) the lexical suffix is the patient. This type of lexical suffixation can result in detransitivization in Halkomelem (Gerdts 1998, Gerdts and Hinkson 1996). So, in fact, the verb base is already detransitivized when the activity suffix *-els* is attached. The suffix *-els* adds the job-like semantics. So we see that the crucial condition on *-els* is that it be attached to a form

with a verb root with a transitive argument structure. The middle suffix *-m* is different. Verb bases with lexical suffixes do not form antipassives with *-m*. Another use of the middle, the personal reflexive, is allowed (Gerdts to appear, Gerdts and Hukari 1998), but an antipassive use of the middle suffix following lexical suffixes is not. This, together with the fact that *-m* cannot appear outside of *-els* (*24), shows that, unlike *-els*, *-m* places restrictions on the base to which it attaches. We summarize the difference between *-els* and *-m* in (32).

(32)   Transitivity conditions on Antipassive morphology:
        a. *-m* requires the base to which it attaches to be a 2-place predicate.
        b. *-els* requires the underlying predicate to be 2-place.

Both antipassive morphemes require transitivity. But *-m* requires the base to which it attaches to be transitive while *-els* requires the underlying predicate to be transitive.

      The requirement in (32b) might seem a little strange if you are used to thinking in terms of ordered, bracketed derivation with Mirror Principle effects (Baker 1988). But having a condition on morphology that requires looking back into the argument structure of the verb root is not unprecedented for Halkomelem. Gerdts (to appear) gives the following restrictions on the two benefactive applicatives:

(33)   a. Use *-əłc-* when the underlying predicate is 2-place.
        b. Use *-meʔ-* when the underlying predicate is 1-place.

Like the activity suffix, the benefactive *-əłc-* is attached to transitives per (32a), as exemplified in (34), but the benefactive *-meʔ-* is used in intransitive contexts, as exemplified in (35).

(34)   niʔ   q̓ʷəl-əłc-t-əs   ʔə   kʷθə   sce:łtən.
        AUX   bake-BEN-TR-3ERG   OBL   DET   salmon
        'He baked the salmon for her.'

(35)   kʷukʷ-meʔ-t!
        cook-APPL-TR
        'Cook for him/her!'

But also like the activity suffix, the benefactive can appear after lexical suffixes, as in (36) and (37). So its transitivity requirement is met by the transitivity of the root at the underlying level, not according to the base to which it attaches.

(36)   t̓θx̌ʷ-əlwət-əłc-ət!
        wash-clothes-BEN-TR
        'Wash clothes for him/her!'

(37) q̓ṗ-əwəɬ-əɬc-ət!
      tie-vessel-BEN-TR
      'Tie up the canoe for him/her!'

We see then that the transitivity of the root can satisfy the transitivity requirement for both the Halkomelem benefactive suffix *-əɬc-* and the activity suffix *-els*, despite the fact that there are intervening detransitivizing suffixes.

4. The Structure of Antipassives

What do stacked antipassives tell us about the architecture of morphosyntactic theory? To account for antipassives, we need an analysis involving a transitive argument structure but an intransitive surface syntax. Many different analyses for antipassive constructions have been proposed in the literature. Although the terminology and devices vary across theories, they nevertheless can be grouped into two general approaches.

      First, some theories take the "demotion" approach to antipassive. In these theories, antipassive morphology is associated with detransitivization. The first formal treatments of antipassive were given in Relational Grammar (Postal 1977). The clause is assigned an initial transitive structure, but the initial object is "chomeurized" either via the retreat and advancement of the subject (see especially Davies (1986) or via spontaneous demotion, as Gerdts (1988b) posits for Halkomelem. Another analysis that treats antipassive as a syntactic rule is the Government/Binding Incorporation approach (Baker 1988). Antipassive morphology is base-generated as the object of the verb; the NP object is an adjunct. The morpheme head-moves to the V and absorbs accusative case. Other linguists have proposed non-syntactic demotion. Lexicalist approaches (e.g. Grimshaw & Mester 1985) associate antipassive with a lexical rule affecting the argument structure of the clause, turning the object/theme into an oblique nominal. The antipassive morpheme is added to the base as a concomitant to the lexical rule. Farrell (1992) gives a lexical account of Halkomelem antipassive based on arguments supplied by Gerdts.

      Any of the demotion analyses can handle the simple antipassive examples. However, none of them can handle multiple antipassives. When the second antipassive is added, it should correlate with detransitivization. However, the second antipassive cannot detransitivize a structure that has already been detransitivized by the attachment of the first antipassive suffix. So, under demotion approaches, multiple antipassives are totally unexpected and unexplained.

      A second type of approach to antipassive has been proposed, however. Antipassive can be associated with the "maintenance" of an agent by mapping the agent, but not the patient, onto subsequent layers of morphosyntactic structure. Many functional accounts of antipassive imply this process. See, for example, "foregrounding" antipassives (Foley and Van Valin 1984) and the "agent focus" construction in Mayan (Aissen 1999 and references therein). In Mapping Theory, an off-shoot of Relational Grammar, Gerdts (1993, 1995) proposes the following mapping rule for the Halkomelem antipassive:

(38) Do not link the 2 (patient) and cancel the B (object) inflectional position
      (if there is one).

Such a rule allows for multiple antipassive, since NOT linking the 2 twice has no more effect on the clause than NOT linking the 2 once.

In addition, a mapping analysis is possible within HPSG. Following Manning and Sag (1998) and Wechsler (1998), we propose that antipassive has a complex argument structure. The a-subject of the antipassive corresponds to the a-subject of the inner argument structure, where, by 'a-subject', we mean the leftmost argument on the (local) list.

(39)   antipassive ARG-ST $<a_i, <a_i, b>>$

The outer a-subject maps to the syntactic role of subject and, for Halkomelem, we assume that a (distinct) inner argument maps to oblique object. Compare this to passive (Manning and Sag 1998), roughly represented as follows:

(40)   passive ARG-ST $<b_i, <a, b_i>>$

That is, the outer a-subject links to the inner a-object and this role would generally map to subject, while the inner a-subject would link to an oblique role (if at all).[4]

If the *-m* antipassive creates the complex argument structure in (39), then the question arises as to the structure of a double antipassive. Is it as follows?

(41)   double antipassive ARG-ST $<a_i, <a_i, <a_i, b>>>$

It is not obvious that the complex structure in (41) satisfies the condition on antipassives, as discussed above, namely that the base predicate's argument structure is transitive. It seems we need access to the inner argument structure, which is transitive.

(42)   An outer antipassive [e.g. Halkomelem *-els*] is only possible if the AP
        morpheme can satisfy a condition on transitivity somewhere within its
        (innermost) argument structure (cf. (32b)).

Thus we see that, double antipassive with no syntactic effect will be possible in an HPSG analysis, provided that the outer antipassive morpheme can satisfy its transitivity requirement from the innermost predicate.

5. Conclusion

In conclusion, antipassives in Halkomelem show many properties that have been attested in antipassives of other languages. One property though, stacking, is something previously unattested. Stacked antipassives are problematic for demotion analyses of antipassives. However, mapping approaches that allow for the crucial feature of an antipassive structure to be the maintenance of the agent into subsequent layers of morphosyntactic structure can

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[4]The Halkomelem passive is beyond the scope of this paper. The status of the Halkomelem passive patient is moot, as discussed in Gerdts (1988b).

accommodate multiple antipassives. We have proposed a mapping analysis within HPSG for the Halkomelem antipassive.

Thus, the Halkomelem facts support a model of argument structure where fully formed words, at least up to the level of inflection, stand in relationship to other fully formed words without internal bracketing, following Anderson (1992). Argument structure mapping approaches do not "derive" antipassives from transitive bases or double antipassives from single antipassives, but rather allow verb valences to stand in a lexical relation to each other.

We might ask, why are stacked antipassives so rare? The answer, we think, lies in (32b)—the fact that the suffix *-els* can satisfy its requirement for transitivity from the root rather than from the base it attaches to. Such "look back" licensing runs counter to the usual procedures of ordered, bracketed derivation. We expect "look back" licensing to be rare, so likewise multiple antipassives will also be rare.

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