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Author(s): Donna B. Gerdtz

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Mapping Transitive Voice in Halkomelem

Donna B. Gerdts
Simon Fraser University

1. Introduction¹

Although the notion of transitivity plays a central part in every current syntactic theory, it is only vaguely defined in many. Furthermore, an ongoing confusion exists concerning semantic vs. syntactic transitivity and the role each plays in a grammar. To complicate matters, the evidence for transitivity is largely drawn indirectly from phenomena such as agreement and case marking, or from the behavior of subject and/or object nominals with respect to such phenomena as extraction. However, in Salish languages, including the Coast language Halkomelem, transitivity is overtly marked. These languages thus provide a rare opportunity to test the effectiveness of various views of transitivity.

We find in Halkomelem three different suffixes correlated with transitivity: the general transitive (1a), the limited control transitive (1b) used when an action is performed accidentally or with difficulty, and the causative (1c).²

- (1) a. k'wən-ət 'take', k'wɛ-t 'pour', lem-ət 'look at', lək-át 'break', tɔyx-w-t 'eat', q'wəq-w-ət 'club', q'wəl-ət 'bake, cook', pən-ət 'plant'
- b. k'wən-nəx-w 'manage to take', k'wə-t-nəx-w 'spill', lək-w-nəx-w 'accidentally break', ləm-nəx-w 'see', q'wəq-w-nəx-w 'accidentally club'
- c. ʔiməš-stəx-w 'make (s.o.) walk', nəʔém-əstəx-w 'make (s.o.) go; take', ʔəmət-stəx-w 'have (s.o.) sit down', ʔəmʔi-stəx-w 'make (s.o.) come; bring', qaʔqaʔ-stəx-w 'have (s.o.) drink'

These three types of transitives contrast with basic intransitives, which lack a transitive suffix, such as the unergatives in (2a) and the unaccusatives in (2b).

- (2) a. ʔəšəl 'paddle', heyʔ 'build a canoe', ʔiməš 'walk', k'wiʔ 'climb', tək-w 'fly', tɔwʔ 'flee', p'ək-w 'come to the surface of the water', q'əp 'assemble, gather', šəq-wəl 'go across to the other side', yays 'work'
- b. ʔik-w 'get lost', k-wan 'be born', k'wes 'get burnt', tɛc 'get cut', pən 'get buried', q-wap 'be wrinkled', q'wəq-w 'get clubbed', q'wəl 'cook; be ripe'

This paper gives an analysis of Halkomelem transitive marking from the point of view of Mapping Theory. First proposed in Gerdts (1992), this theory develops an analysis of clause structure centered on the concept of morpho-syntactically-licensed argument positions, henceforth MAPs. First, I give a Mapping Theory analysis for the relevant Halkomelem constructions. Then I turn my attention to transitive marking. What the Halkomelem data show is that simple semantic or syntactic notions of transitivity do not straightforwardly align with Halkomelem transitive marking. However, within a Mapping Theory analysis, a

The universal principles for linking GRs to MAPs are given in (6)^{5,6}

- (6) Saturation Principle: every MAP must be linked to a GR or cancelled.
 Biuniqueness Principle: a MAP is linked to at most one GR (except under coreference), and every GR is linked to at most one MAP.
 No Delinking Principle: there are no “delinkings”.

Two types of association are recognized in the theory. Unmarked association proceeds in a vertical, non-crossing, left-to-right fashion. Marked associations, however, may involve non-vertical linkings, the linking of an “extra” nominal not lexically subcategorized by the verb, the non-linking of a nominal, or a special stipulation concerning a linked nominal. Marked associations are generally accompanied by morphological conditions. A statement of these conditions and their concurrent effect on argument structure is the biggest task of a Mapping grammar. Some aspects of marked association will be specified in universal grammar but other aspects will be subject to parameter setting.

2.1 Applicatives

Gerdts (1993) suggests the following universal linking rule for applicatives:

- (7) **Applicative:** add a MAP (up to threshold) and link the 3 or oblique to the lowest MAP.

Take the Halkomelem examples in (8) and (9); (8) shows a dative applicative and (9) shows a benefactive applicative.

- (8) niʔ ʔa-m-əs-θámʔš-əs ʔə kʷθə pukʷ
 aux give-adv-tr+1obj-3erg obl det book
 ‘He gave me the book.’
- (9) niʔ qʷəl-əʔc-θámʔš-əs ʔə kʷθə sce-ʔtən
 aux bake-ben-tr+1obj-3erg obl det salmon
 ‘He baked me the salmon.’

Since (8) and (9) are lexically transitive and Halkomelem is a two-MAP language, MAPs A and B are available for linking. The applicative cannot add a MAP, since the threshold is two in Halkomelem. Nonetheless, the 3 or oblique is linked to the lowest MAP, that is B, as (10) shows.

- (10) θ-Rs: agent theme goal/ben
 GRs: 1 2 3/OBL
- | /
- MAPs: A B

The 1 links by unmarked association. The 2 is unlinked and therefore gets licensed as a non-argument by a peripheral means, such as the preposition in (8a) and (8b).

Applicatives in Halkomelem can also be formed on initially intransitive clauses, for example the directional in (11).

- (11) ?i yə-ʔéʔwəʔ-nəs-əs ʔə steniʔ
 aux ser-come-dir+tr-3erg det woman
 'He's coming toward the woman.'

As (12) shows, the lexical valence of the motion verb in (11) is one, so MAP A is assigned. The applicative adds MAP B (added MAPs are represented in boldface), and the oblique links to it.

- (12) θ-Rs: agent dir
 GRs: 1 OBL
 | |
 MAPs: A **B**

We see that the applicatives in (8) and (9) vs. (11) differ in whether or not they add a MAP, but they are the same in that the 3 or oblique nominal links to the lowest MAP.

2.2 Antipassives

An example of an antipassive is given in (13):

- (13) ni q'ʷəl-əm θə steniʔ ʔə tʰə sçəʔtən
 aux cook-intr det woman obl det salmon
 'The woman cooked the salmon.'

We can compare this to the transitive clause in (3), which has transitive marking on the verb, ergative agreement, and two plain nominals. The antipassive in (13) has intransitive morphology, no ergative agreement, and the patient nominal is presented with a preposition.

The Mapping Theory rule for antipassive is given in (14); thus (13) is represented as in (15).

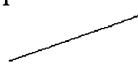
- (14) **Antipassive:** cancel the lowest MAP and do not link the GR above it.

- (15) θ-Rs: agent theme
 GRs: 1 2
 | |
 MAPs: A **B**

The antipassive involves cancelling the lowest MAP (represented by shadowed letters), and the 2 is not linked.

- b. ʔu č'ax^{aa}at-b čax^{aa} ʔə ti č'ač'as
 asp club+tr-intr 2sub obl det boy
 'You were clubbed by the boy.'


In the transitive clause in (20a), the 2nd person theme shows up as objective agreement. In the passive in (20b), intransitive morphology is added to the predicate, and the theme appears as a subjective clitic. This kind of passive is represented in (21): the 2 links to A and hence appears in subjective form, and the B is cancelled; the unlinked 1 is a non-argument, presented as a preposition phrase.

- (21) θ-Rs: agent theme
 GRs: 1 2
 MAPs: A B
- 

The Halkomelem passive demonstrates an alternative pattern.

- (22) ni cən ləm-əθamə
 aux 1-sub look-tr+2obj
 'I looked at you.'
- (23) ni ləm-əθa-m ʔə ʔə sʔeni?
 aux look-tr+2obj+intr obl det woman
 'You were looked at by the woman.'

(22) shows a transitive clause with the 2nd person theme as an objective suffix. In the passive in (23), the 2nd person theme, which tests to be the sole direct argument of the clause, likewise appears as an objective suffix.⁷ The structure in (24) accommodates this.

- (24) θ-Rs: agent theme
 GRs: 1 2
 MAPs: A B
- 

In Halkomelem, the 2 links to B and the A is cancelled. Lushootseed and Halkomelem passives are minimally distinct. They both have the same verbal morphology and the same way of presenting passive agents. But because B cancels in Lushootseed while A cancels in Halkomelem, the themes are linked differently.

3. Transitive marking

The general transitive suffix *-t* (and its allomorphs *-θ* and *-s*) can be seen in the Halkomelem data above. For example, in the transitive clause in (3), *-t* appears immediately after the verb root. Transitive marking not only appears on the

monotransitive in (3), but also on the applicatives in (8), (9), and (11), the reflexive in (16), and the passive in (23). Unergatives (25), unaccusatives (26), as well as antipassives (see (13) above), do not have transitive suffixes.

- (25) ni ʔiməš tə steni?
 aux walk det lady
 'The lady walked.'
- (26) ni q'ʷəl tʰə sceʔtən
 aux bake det salmon
 'The salmon baked.'

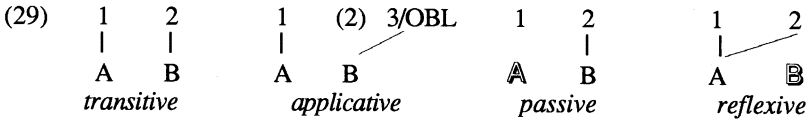
Given this range of data, how do we state a rule for transitive marking? The chart in (27) summarizes the transitive properties of each construction in terms of semantics and syntax: I take semantic transitivity to correlate with the presence of the grammatical relations 1 and 2— typically an agent and a theme; syntactic transitivity corresponds to constructions which allow agreement with two nominals.

		semantically transitive	syntactically transitive
with -t:	monotransitive	yes	yes
	applicatives (e.g. (8, 9))	yes	yes
	applicatives (e.g. (11))	no	yes
	passives	yes	no
	reflexives	yes	no
without -t:	unergatives	no	no
	unaccusatives	no	no
	antipassives	yes	no

What (27) shows is that a rule based solely on semantic or solely on syntactic transitivity is inadequate. There are constructions that are semantically intransitive, e.g. applicatives like (11), or syntactically intransitive, e.g. passives and reflexives, but nevertheless have transitive marking. In addition, the antipassive is semantically transitive but lacks transitive marking. We are led to conclude that the notion of transitivity that is marked in Halkomelem does not seem to correspond neatly to either semantic or syntactic transitivity, nor to a simple combination of these notions.

However, seen from the Mapping Theory viewpoint, transitive marking is a simple rule. The Mapping Theory analysis for constructions without transitive marking is given in (28) and for those with transitive marking in (29).

(28)	1	2	1	2
	A	A	A	B
	<i>unergative</i>	<i>unaccusative</i>	<i>antipassive</i>	



The crucial difference between the constructions in (28) vs. (29) is captured by the following rule:

(30) **Transitive:** a GR other than the first one is mapped.

Under the Mapping analysis, transitive marking in Halkomelem can be taken to be another type of marked association: one that stipulates some feature of a mapped nominal, i.e. that it is not the first nominal in the GR tier.

4. Limited Control Marking

A second Halkomelem transitive suffix, limited control, is used in the context of an action that is performed accidentally or with difficulty. However, this suffix appears only in a subset of the constructions in (29). Active transitives, passives, and reflexives can take limited control marking, as (31)-(33) show:

- (31) ni cən k'wət-nəxw ní ʔə tʰə lətəm
 aux lsub pour-l.c.+3obj be obl det table
 'I spilled it on to the table.'
- (32) ni q'wəq-w-n-əm ʔə-λ' John tʰə Bob
 aux club-l.c.-intr obl-det J. det B.
 'Bob was accidentally clubbed by John.'
- (33) ni k'wələš-námət k'wəθə swəyʔqe'
 aux shoot-l.c.+ref det man
 'The man managed to shoot himself.'/'The man shot himself accidentally.'

However, applicative constructions (cf. (*34b) and (*35b)) cannot.⁸

- (34) a. ni yəθ-əs-t-əs
 aux tell-adv-tr-3erg
 'He told her about it.'
- b. *ni yəθ-əs-nəxw-əs
 aux tell-adv-l.c.+3obj-3erg
 'He happened to tell her about it.'
- (35) a. ni ʔiləq-ət-t-əs
 aux buy-ben-tr-3erg
 'He bought it for him.'

- b. *ni ʔiləq-əc-nəx[∞]-əs
 aux buy-ben-l.c.+3obj-3erg
 ‘He managed to buy it for him.’

This fact is easy to capture in Mapping Theory, given the analyses in (29): applicatives do not involve the mapping of a 2. Therefore, a rule of limited control marking can be given as in (36).

- (36) **Limited control:** a GR other than the first one, specifically a 2, is mapped.

We see then that transitive marking and limited control marking differ in a crucial way: transitive marking is blind to which GR is mapped, as long as it is not the first GR, while 2-hood is crucial for limited control marking.

5. Causatives

Mapping Theory has only one level of relational structure at its disposal. Thus, causatives present a special challenge, since most theories analyse them as multi-level structures in order to accommodate the arguments of both the causative and the base predicate. I will assume, following Alsina (1992) and others, that a lexical rule is responsible for morphological causatives of the type found in Halkomelem, where there is no evidence that the causative morpheme is a higher verb. This rule will provide for the concatenation of the arguments of the causative event and base predicate. The core claim of this rule is that one of the nominals has a double function. For Halkomelem, a single nominal is both the causee and the agent of the base predicate.⁹ Within Mapping Theory, this can be captured by assigning this nominal a dual grammatical relation even though it is linked to only one MAP. Thus, a causative based on an intransitive stem, as in (37), is represented as in (38).

- (37) ʔi cən ʔəmʔi-stəx[∞] tθə swiwʔləs
 aux 1sub come-cs+3obj det boy
 ‘I made the boy come.’/‘I brought the boy.’

- (38) θ-Rs: causer causee/agent
 GRs: 1 2=1
 | |
 MAPs: A B

Causative marking requires the mapping of this double-function nominal, which is necessarily not the first GR:

- (39) **Causative:** a 2=1 is mapped.

- (45) ni cən q'ʷəl-əm-stəx^ω θə stəni? ʔə tθə səplɪl
 aux 1sub bake-intr-cs+3obj det woman obl det bread
 'I made the woman bake the bread.'
- (46) ni cən k'ʷələš-θət-stəx^ω tθə Mary
 aux 1sub shoot-tr+ref-cs+3obj det M.
 'I made Mary shoot herself.'

Of course, other rule combinations that satisfy the requirements of more than one marked association without violating the linking principles of (6) will also be possible. These are too numerous to detail here, but, to give one example, (47) involves antipassive, causative, and passive, as represented in (48).

- (47) ni q'ʷəl-əm-st-əm θə stəni? ʔə tθə səplɪl
 aux bake-intr-cs-intr det woman obl det bread
 'The woman was made to bake the bread.'
- (48)
- | | | |
|---|-----|---|
| 1 | 2=1 | 2 |
| | | |
| A | B | C |
- antipassive/causative/passive*

In sum, the Mapping Theory account of Halkomelem causatives not only accommodates the basic data but also correctly predicts the range of co-occurrence of the causative and other marked associations of the language.

6. Conclusion

The Halkomelem data show that transitive marking does not straightforwardly align with either semantic or syntactic notions of transitivity. Mapping Theory, however, provides a simple and unified account of the three Halkomelem transitive suffixes. One of the transitive suffixes appears whenever a grammatical relation other than the first one is mapped. The three suffixes differ subtly. The general transitive marker *-t* is blind to the grammatical relation of the mapped nominal. Limited control marking, however, stipulates the 2-hood of the mapped nominal. The causative suffix indicates the mapping of the 2=1 nominal, i.e. the causee.

In conclusion, the three transitive marking rules are language-specific marked associations. These interact with universal marked association rules for applicatives, passives, antipassives, and reflexives. The resulting structures are also subject to the general principles for linking grammatical relations to MAPs. In this fashion, Mapping Theory accounts for a significant array of Halkomelem data.

Footnotes

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²The Halkomelem data are from the late Arnold Guerin, a speaker of the Island dialect. My fieldwork on Halkomelem was supported by the Canadian Consulate, the Jacobs Research Fund, the Phillips Fund, and the National Museum of Man.

The data are presented in standard Northwest orthography. I do not mark stress when it falls on the first syllable of a word. The following abbreviations are used in glossing the data: *adv* advancement marker, *asp* aspect, *aux* auxiliary, *ben* benefactive, *cs* causative, *det* determiner, *dir* directional, *erg* ergative, *intr* intransitive, *l.c.* limited control, *obj* object, *obl* oblique, *ref* reflexive, *ser* serial, *sub* subject, *tr* transitive, *1* first person, *3* third person.

³This paper gives only a brief look at Mapping Theory and does not compare it with other similar theories. The approach taken by Woolford (1986) is perhaps the closest in its notation and intention.

⁴See Gerdts (1988) for details of the presentation structure of Halkomelem. The presentation level will also involve co-occurrence restrictions which may reference the semantic and grammatical properites of the mapped elements. For example, Halkomelem has the following constraint: *A = 3rd person, B = 2nd person.

⁵Such principles are fairly typical in linking theories. See, for example, Ostler (1980), Woolford (1986), and Yip et al. (1987).

⁶In addition, individual languages may place further stipulations on their Mapping grammars. For example, in Halkomelem it is possible to exclude all crossing lines.

⁷However, the forms in the active and passive are not always transparently related, although it is clear that they are always objective—and not subjective—in nature. See Gerdts (1988, 1989a) for discussion.

⁸See Gerdts (1988) for additional examples.

⁹Since “agent” is specifically mentioned here, causatives on unaccusatives, which do not have an agent nominal, will be ruled out. This is basically correct for Halkomelem, as Gerdts (1991) discusses.

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