A RELATIONAL ANALYSIS OF HALKOMELEM CAUSALS

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1. INTRODUCTION

In Halkomelem, a Salish language spoken in southwestern British Columbia, there are several ways of expressing psychological events. In cases involving a CAUSAL (an indirect cause), the nominal playing the role of causal can be expressed in two ways.\(^1\) First, it can be an oblique in an intransitive clause, as exemplified in (1)–(3):\(^2\)

\(^1\) The term "causal" as used here originates with the work of Eduardo Raposo on Portuguese causatives.

\(^2\) These abbreviations are used in the glosses of the Halkomelem:
- advA: Marker of 3–2 Advancement
- advB: Marker of Ben–2 Advancement
- advC: Marker of Caus–2 Advancement
- aux: Auxiliary
- cs: Causative
- det: Determiner
- erg: Ergative
- intr: Intransitive
- l.c.: Limited control
- lnk: Linker
- obj: Objective case
- obl: Oblique marker
(1) ni cən c'əq’ə ʔə kʷθə səlxám-s
aux lsub astonished obl det jump-3pos
'I was astonished at his jump.'

(2) ni cən stciwʔs ʔə kʷθə ni ʔət na-syá.yʔs
aux lsub tired obl det aux pst 1pos-work
'I am tired of working.'

(3) ni q’elʔə ʔə kʷθə šmaθ’aŋqínam-s
aux believe obl det lie-3pos
'He believed his lies.'

Second, the causal can be the object of a verb suffixed with -meʔ, as exemplified in (4)–(6):

(4) ni cən q’elʔ-méʔ-ə ʔə ləpliʔt
aux lsub believe-advC-tr det priest
'I believed the priest.'

(5) ni cən waʔ šciws-mə-ə ʔə John
aux lsub already tired-advC-tr det
'I'm already tired of John.'

(6) ni ʔθεyʔkʷ’-méʔ-təs ʔə kʷθə sqʷəmeyʔ
aux startled-advC-tr-3erg det dog
'He was startled at the dog.'

In (7), I have listed other verbs that can occur in these two constructions; there are about 30 verbs in all. They are of a consistent semantic class — psychological predicates.

(7) šiʔčəʔ ‘ashamed’
hiʔakʷ ‘be happy’
siʔwl ‘sense’

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<th>pos</th>
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3 Data from two dialects of Halkomelem are given here: In the Cowichan dialect the causal to object advancement marker is -méʔ, in the Musqueam dialect this marker is -miʔ, and in both dialects, the stressed form alternates with an unstressed variant -ma.
siʔsiʔ 'frightened'
wistənaq 'be jealous'
ciʔwetʔ 'be annoyed' (Musqueam only)
ʔəlyə 'dream' (Musqueam only)
həʔəkʷʷ 'remember' (Musqueam only)

In Halkomelem, causals as in (1)–(6) contrast syntactically and semantically with agents. In the transitive construction in (8), the agent is the direct, purposeful inducer of the psychological state and appears as subject.

(8) ni cən ʔəʔəkʷʷ-t kʷəʔ sqʷəməʔ? ʔə kʷəʔ tintin
aux 1 sub startle-tr det dog obl det bell
'I startled the dog with the bell (on purpose).'

In addition, causals (indirect causes) contrast with causers, which directly cause an event. Causers in Halkomelem are expressed in causative constructions like (9); this construction is discussed further in Section 5.2.2.

(9) ni cən ʔiməʔ-staxʷ kʷəʔ John
aux 1 sub walk-cs det
'I made John walk.'

In this chapter I propose to give analyses for causal constructions. In presenting these analyses, I make use of concepts available in Relational Grammar, as outlined in Section 2. Because my arguments are based on some basic rules of Halkomelem, I discuss these rules in Section 3. In Section 4, I argue that causal constructions like those in (4)–(6) involve the advancement of the causal to object. In Section 5, I discuss causal constructions in light of the Unaccusative Hypothesis, as proposed by Perlmutter (1978) and Perlmutter and Postal (1984). I give evidence that causal constructions are initially unaccusative. In Section 6, I show that Passives of causal constructions which involve advancement to object are possible; such Passive constructions constitute a counterexample to a law proposed as a universal by Perlmutter and Postal—the 1-Advancement Exclusiveness Law.

2. OUTLINE OF RELATIONAL GRAMMAR

The following is a summary of the basic concepts of Relational Grammar (RG) needed to comprehend the analysis presented here. For a more thorough discussion and justification of these concepts, see Perlmutter and Postal (1977, 1984) and Perlmutter (1980).
The basic claim of RG is that the following information is needed in the syntactic characterization of a clause:

1. The grammatical relations that each element bears in the clause (see Section 2.1)
2. The level at which each element bears grammatical relations to the other elements

This information is represented in RG by means of a RELATIONAL NETWORK (see Section 2.2).

The use of relational networks (RNs) to characterize clauses has an immediate consequence: Because RNs reference grammatical relations rather than word order, case marking, etc., it is possible to compare grammatical constructions in different languages. Thus, linguistic theory can be conceived of as the task of characterizing the set of well-formed RNs for natural languages. The task of grammars of individual languages is to state which subset of the set of well-formed RNs is well-formed in that language. In addition, a grammar of a language must state various language-particular rules and generalizations (e.g., case marking, word order).

2.1. Grammatical Relations

Among the grammatical relations (GRs) used in RG are: predicate (P), subject (1), object (2), indirect object (3), oblique (locative [Loc], benefactive [Ben], instrument [Instr], etc.), and chômeur (Cho). The chômeur relation (from the French "unemployed") is borne by nominals that bear no other nominal clause relation at that level. More precisely, a nominal \( N_i \) can bear the chômeur relation only in constructions in which some other nominal \( N_j \) assumes \( N_j \)'s relation (see Section 2.2).

The GRs are organized into classes; of relevance here are two classes: NUCLEAR TERMS, consisting of 1s and 2s, and NON-TERMS, consisting of chômeurs and obliques.

The nominal clausal GRs are conceived of as being organized hierarchically, as follows:

\[
1 > 2 > 3 > \text{non-terms}
\]

Although the principle for determining the assignment of GRs at initial level is not entirely justified empirically, Perlmutter and Postal (1977) say:

Our ultimate claim is that the justification for [the assignment of GRs at initial level] is universally determined by principles referring to the semantic role of the nominal. Thus, as traditionally recognized, agent nominals are initially 1s (although, of course not all 1s represent agents), patients 2s, etc. . . . [p. 402].
2.2. Relational Networks

The relational network involves three primitive constructions:

(11)  
   a. A set of nodes, which represent linguistic elements of all sorts, including morphemes and abstract elements such as clauses or phrases
   b. A set of R-signs, which are the names of the grammatical relations that elements bear to other elements
   c. A set of coordinates, $c_1 \ldots c_n$, which indicate the level at which the elements bear grammatical relations to other elements

This information, that an element bears a grammatical relation at a certain level, can be captured by means of an ARC, as in (12).

(12)  

\[
\begin{array}{c}
GR_x \\
\downarrow \\
c_1 \\
\downarrow \\
a
\end{array}
\overset{b}{\nearrow}
\]

The arc in (12) is interpreted to mean that element $a$ bears relation $GR_x$ with respect to element $b$ at the $c_1$ level.

A relational network is a set of arcs meeting certain conditions. A sentence with 3 elements ($a$, $b$, $c$) bearing grammatical relations ($x$, $y$, $z$ respectively) at the $c_1$ level to element $d$ can be represented by the following relational network.

(13)  

\[
\begin{array}{c}
GR_x \\
\downarrow \\
c_1 \\
\downarrow \\
a
\end{array}
\overset{d}{\nearrow}
\begin{array}{c}
GR_y \\
\downarrow \\
c_1 \\
\downarrow \\
b
\end{array}
\overset{c}{\nearrow}
\begin{array}{c}
GR_z \\
\downarrow \\
c_1 \\
\downarrow \\
c
\end{array}
\]

In some grammatical constructions, a nominal bears different relations at different levels of the same clause. For example, in ADVANCEMENTS, a nominal bearing a GR at the $c_1$ level bears a GR that is higher on the hierarchy given in (10) at the $C_{l+1}$ level. For example, Passive has been
universally characterized by Perlmutter and Postal (1977) in terms of the following sub-network:

\[(14)\]

\[\begin{array}{c}
2 \quad c_i \\
1 \quad c_{i+1} \\
1 \quad c_i
\end{array}\]

That is, a nominal bearing the 2-relation in the \(c_i\) stratum, in which there is also a nominal bearing the 1-relation, bears the 1-relation in the \(c_{i+1}\) stratum.

The Passive clause in (15) is represented by the relational network in (16):

\[(15)\]  
Sally was criticized by Marcia.

\[(16)\]

\[\begin{array}{c}
b \\
P \quad c_1 c_2 \\
2 \quad c_1 \\
1 \quad c_2 \\
1 \quad c_1 \\
\end{array}\]

As can be observed in (16), Sentence (15) has two levels of structure (\(c_1\) and \(c_2\)). The notion of level can be restated formally in terms of the concept of stratum, defined as follows: The \(c_{pi}\) or \(i^{th}\) stratum of \(b\), where \(b\) is a node and \(c_i\) is an arbitrary coordinate, is the set of all arcs with tail \(b\) and coordinate \(c_i\).

Thus, in the \(c_1\) stratum of (15), criticize heads a P-arc, Marcia heads a 1-arc, and Sally heads a 2-arc, as represented in (17).

\[(17)\]

\[\begin{array}{c}
b \\
P \quad c_1 c_2 \\
2 \quad c_1 \\
1 \quad c_1 \\
\end{array}\]

In the \(c_2\) stratum of (15), criticize heads a P-arc, Sally heads a 1-arc, and Marcia heads a cho-arc, as represented in (18).
The strata are more clearly seen in an alternative representation of the relational network—the stratal diagram. The stratal diagram of (15) is given in (19).

In stratal diagrams, it is common to use the symbols $\hat{1}$, $\hat{2}$, and $\hat{3}$ to represent chômeurs. An $n$-chômeur in a stratum $c_i$ is a nominal heading a cho-arc in the $c_i$ stratum and an $n$-arc in the stratum immediately before the first stratum in which it heads a cho-arc.

2.3. Laws in Relational Grammar

Perlmutter and Postal (1977, 1983, 1984) have proposed a number of laws stated in terms of grammatical relations. These laws, based on cross-linguistic generalizations, make falsifiable empirical claims about the class of possible natural languages.

For example, in the Passive construction in (15) as represented in (16) and (19) the initial $1$ bears the chômeur relation at final level. Evidence that the initial $1$ of a Passive is a final chômeur in English comes from the inability of the nominal to behave as a subject with respect to rules like verb agreement and subject-to-object raising, which refer to the notion “final-stratum 1.”

A proposed universal—the Motivated Chômage Law—claims that a nominal $N_i$ can bear the chômeur relation only in constructions in which some other nominal $N_j$ assumes $N_j$'s relation. In this case, the initial $2$ assumes the $1$-relation at final level. Thus the Passive construction in English obeys the Motivated Chômage Law.
Several other laws proposed by Perlmutter and Postal are referred to in this chapter. Statements of these laws are given as they become relevant to the discussion.

2.4. Some Defined Concepts

Finally, some other concepts made use of in this chapter are given formal definitions in RG. These are:

1. **Transitive** — A transitive stratum is one containing both a 1-arc and a 2-arc.
2. **Intransitive** — An intransitive stratum is one that is not transitive.
3. **Ergative Arc** — A 1-arc in a transitive stratum is an Erg-arc in that stratum.
4. **Absolute Arc** — A 2-arc in a transitive stratum or the nuclear term-arc in an intransitive stratum is an Abs-arc in that stratum.

3. SOME BASIC RULES OF HALKOMELEM

Before proceeding to the analysis of causal constructions, I give some basic rules of Halkomelem, discussing these rules with respect to three types of clauses. First, there are intransitive clauses like (20)–(21).

(20) a. *ni *pimåš to *sténi?  
aux walk det lady  
'The lady walked.'

b. 

\[ P \rightarrow \ 1 \]

\[ pimåš \quad sténi? \]

'walk' 'lady'

(21) a. *ni câm kʷθənìkʷ *tə *smént  
aux go up det uncle obl det mountains  
'Uncle went up into the mountains.'

b. 

\[ P \rightarrow \ 1 \rightarrow \ Loc \]

\[ câm \quad nikʷ \quad smént \]

'go up' 'uncle' 'mountains'
Second, in (22)–(23), I have given examples of monostratal transitive clauses, as represented in the stratal diagram in (23b).

(22) \( ni \ q'\text{w}\acute{a}l\text{-at-}as \ \theta\theta \ st\text{\`e}ni? \text{t}\theta \ sc\text{\`e}\text{\`e}n \)  
aux bake-tr-3erg det lady det salmon  
'The lady baked the salmon.'

(23) a. \( ni \ q'\text{w}\acute{a}qw\text{-at-}as \ t\theta \ sw\text{\`o}y\text{q}\text{\`e}\text{\`e} \text{t}\theta \ sp\text{\`e}\text{\`o}\theta \)  
aux club-tr-3erg det man det bear  
'The man clubbed the bear.'

b.  
```
    p
   /\  
  1- 2
  /\  
```

```
q'\text{w}\acute{a}qw  
'club'
```
```
sw\text{\`o}y\text{q}\text{\`e}\text{\`e}  
'man'
```
```
sp\text{\`e}\text{\`o}\theta  
'bear'
```

Finally, in (24) and (25) respectively, I give examples of clauses that I have analyzed elsewhere (Gerdt 1981) as involving the advancement of the initial 3 (the "recipient") or the initial benefactive to 2; in advancing to 2, the initial 3 or Ben places the initial 2 en chômage, as represented in (24b)–(25b).

(24) a. \( ni \ \text{\`a}m\text{-as-}t\text{-as} \ k\theta\theta \ sw\text{\`o}y\text{q}\text{\`e}\text{\`e} \ \theta\theta \ st\text{\`e}ni? \ \theta\theta \ k\theta\theta \ s\text{\`o}x\text{\`e}\text{\`e} \text{-}t\text{-s} \)  
aux give-advA-tr-3erg det man det lady obl det canoe  
'The man gave the lady the canoe.'

b.  
```
    p
   /\  
  1- 2
  /\  
```

```
\text{\`a}m  
'give'
```
```
sw\text{\`o}y\text{q}\text{\`e}\text{\`e}  
'man'
```
```
s\text{\`o}x\text{\`e}\text{\`e} \text{-}t\text{-s}  
'canoe'
```
```
st\text{\`e}ni?  
'lady'
```

(25) a. \( ni \ \text{\`o}y\text{-at-}t\text{-as} \ k\theta\theta \ sw\text{\`o}y\text{q}\text{\`e}\text{\`e} \ \theta\theta \ k\theta\theta \ s\text{\`o}x\text{\`e}\text{\`e} \text{-}t\text{-}s \)  
aux fix-advB-tr-3erg det man obl det canoe-3pos  
'He fixed the canoe for the man.'

b.  
```
    p
   /\  
  1- Ben
  /\  
```

```
\text{\`o}y  
'fix'
```
```
\emptyset  
'he'
```
```
s\text{\`o}x\text{\`e}\text{\`e} \text{-}t\text{-}s  
'canoe'
```
```
sw\text{\`o}y\text{q}\text{\`e}\text{\`e}  
'man'
```

3.1. Transitive Marking

All predicates in finally transitive strata must be suffixed with a transitive marker; in the foregoing examples the relevant suffix is -(ə)t. Observe the presence of this marker in (22)–(25) and its absence in (20)–(21). Finally transitive clauses are ungrammatical without Transitive Marking.

3.2. Case and Agreement

Two cases are distinguished for nominals: the **straight** case, in which the nominal is preceded only by a determiner, and the **oblique** case, in which the nominal is preceded by the oblique marker and a determiner:4

(26)  Straight case  Oblique case
      ṭa stēni?  ṭo ṭa stēni?
      det lady  obl det lady

The rule for Nominal Case is as follows:

(27)  a. Final nuclear terms (1s and 2s) are in the straight case.
      b. Other nominals are in the oblique case.

Thus, the final 1s in the preceding examples are in the straight case. In addition, the final 2s in (22)–(25) are in the straight case. Final obliques as in (21) and chômeurs as in (24)–(25) are in the oblique case.

In contrast to nominals, pronouns distinguish four cases; a partial paradigm is given in (28):

(28)  Subjective  Objective  Oblique  Possessive
      1st person sg  ṇan  -amʔs  ṭo-ʔ  ṭenʔo  ṇo-
      2nd person sg  č  -am ή  ṭo-ʔ nəwə  ṇən-

The subjective set are clitics and follow the first element of the clause. The objective set are verbal suffixes. The oblique set consists of independent pronouns preceded by the oblique marker and a determiner. The possessive set are affixes.

As can be seen in (29)–(31), final 1s are expressed in subjective case and final 2s in objective case.

(29)  ni ṇan ṭinaʔ
      aux 1sub walk
      ‘I walked.’

4 The determiners used in these data are:

-ḥo  Plain visible definite
-kʷʔo  Plain visible definite
ʔo  Feminine visible definite
-ḥo  Feminine invisible definite
-ḥ  Oblique pronominals and proper nouns
(30) \( ni \ c \ k^{\text{wən-όθ-άμ?}} \)
aux 2sub grab-tr-1obj
'You grabbed me.'

(31) \( ni \ c\ an \ ?am-as-θ-άμα \)
aux 1sub give-advA-tr-2obj
'I gave it to you.'

Final obliques, like the locative in (32), are in the oblique case.

(32) \( ni \ c\ an \ nêm? \ ?o-κ \ náwə \)
aux 1sub go obl-det 2
'I went to you.'

For third person, nonemphatic final 1s and 2s are }\emptyset{. However, third person nominals and pronominals determine agreement, which is expressed as the verbal suffix -\( \text{as} \), as exemplified in (33).

(33) \( ni \ k^{\text{wən-όθ-άμ?}}\text{-as} \)
aux grab-tr-1obj-3erg
'He grabbed me.'

As can be observed by contrasting the finally intransitive clauses in (20)–(21) with the finally transitive clauses in (22)–(25) and (33), only final 1s in transitive clauses determine third person agreement. Since a 1 in a transitive stratum is an ergative, Third Person Agreement is formulated as follows:

(34) Third person nominals heading a final Erg-arc determine agreement.

Thus, agreement provides a test for final transitivity in Halkomelem.

3.3. Quantifier Extraction

Quantifiers, like other modifiers, appear preceding the nominal they modify, as exemplified in (35).

(35) \( mäk'\text{-w} \ k^{\text{wθo}} \text{qá?} \)
all det water
'all the water'

In addition, the quantifier \( mäk'\text{-w} \text{'all'} \) can appear in sentence-initial position followed by an embedded clause, as exemplified in the (b) sentences of (36) and (37). I refer to this construction as Quantifier Extraction.

(36) a. \( ni \ x^{\text{wələnčənəm}} mäk'\text{-w} \ k^{\text{wθo}} \text{skəl?ŋəf} \)
aux run(pl) all det children
'All the children ran.'
b. mákʷ niw   ámbënám kʷθə sʔəl'qəl
all aux:lnk run(pl) det children
‘All the children ran.’

(37) a. ni wəwáʔas mákʷ kʷθə sqʷəmqʷəməyʔ
aux bark all det dogs
‘All the dogs barked.’
b. mákʷ niw wəwáʔas kʷθə sqʷəmqʷəməyʔ
all aux:lnk bark det dogs
‘All the dogs barked.’

This construction is discussed in Gerdts (1981); relevant here is a condition on Quantifier Extraction.

As can be seen in (36)–(37), it is possible to extract quantifiers that modify nominals that are final 1s in intransitive clauses. It is also possible to extract quantifiers that modify nominals that are the final 2s in transitive clauses, as shown in (38)–(40).

(38) a. ni qáʔqaʔ-t-əs kʷθə səwəwəʔʔqəʔ qáʔ kʷθə qáʔ
aux drink-tr-3erg det men all det water
‘The men drank all the water.’
b. mákʷ niw qáʔqaʔ-t-əs kʷθə səwəwəʔʔqəʔ kʷθə qáʔ
all aux:lnk drink-tr-3ssub det men det water
‘The men drank all the water.’
*‘All the men drank the water.’

(39) a. ni təyə-t-əs tə stənəniʔ mákʷ kʷθə scəʔən
aux eat-tr-3erg det women all det salmon
‘The women ate all the salmon.’
b. mákʷ niw təyə-t-əs tə stənəniʔ kʷθə scəʔən
all aux:lnk eat-tr-3ssub det women det salmon
‘The women ate all the salmon.’
*‘All the women ate the salmon.’

(40) a. ni ʔilaq-əc-t-əs mákʷ kʷθə məʔnə-s
aux buy-advB-tr-3erg all det offspring-3pos
ʔə kʷθə qʷtəʔʔən
obl det shoe
‘He bought shoes for all his kids.’
b. mákʷ niw ʔilaq-əc-t-əs kʷθə məʔnə-s
all aux:lnk buy-dkB-tr-3ssub det offspring-3pos
ʔə kʷθə qʷtəʔʔən
obl det shoe
‘He bought shoes for all his kids.’
*‘He bought all the shoes for his kids.’
In contrast, it is not possible to extract quantifiers that modify nominals that are final 1s in transitive clauses, as seen in (41)–(42).

(41) a. ni qʷəl-ət-əs məkʷʷ tə əqələgət kʷθə səpləl
aux bake-tr-3erg all det children det bread
‘All the children baked the bread.’
b. məkʷʷ niw qʷəl-ət-əs tə əqələgət kʷθə səpləl
all aux:lnk bake-tr-3ssub det children det bread
*‘All the children baked the bread.’
‘The children baked all the bread.’

(42) a. ni q̣aʔ qaʔ-t-əs məkʷʷ kʷθə səwəẉyʔqeʔ kʷθə q̣aʔ
aux drink-tr-3erg all det men det water
‘All the men drank the water.’
b. məkʷʷ niw q̣aʔ qaʔ-t-əs kʷθə səwəẉyʔqeʔ kʷθə q̣aʔ
all aux:lnk drink-tr-3ssub det men det water
*‘All the men drank the water.’
‘The men drank all the water.’

In light of the preceding examples, I propose that the relevant distinction for formulating a condition on Quantifier Extraction is absolutive versus ergative; that is, the quantifier can be extracted from a final 1 in an intransitive stratum or a final 2 in a transitive stratum but not from a final 1 in a transitive stratum. Thus, the condition on Quantifier Extraction is as follows:

(43) Quantifiers can only be extracted from nominals heading a final Abs-arc.

4. CAUSALS IN HALKOMELEM

Returning now to causal constructions, I claim that in clauses like those that were given in (1)–(3)—for example, (44) [= (1)]—the causal is an oblique in a finally intransitive clause.

(44) ni cən c̣aq’ʔə kʷθə səc̣əm-s
aux 1sub astonished obl det jump-3pos
‘I was astonished at his jump.’

In contrast, clauses like those given in (4)–(6)—for example, (45) [= (5)]—involve the advancement of the causal (an oblique) to 2 (Caus-2 Advancement), as represented in the sub-network in (46):

(45) ni cən wət əciws-mət tə John
aux 1sub already tired-advC-tr det
‘I’m already tired of John.’
This advancement is marked by the verbal suffix -me?.

Notice that the analysis proposed here accounts for both the semantic and syntactic behavior of causals in Halkomelem: All nominals with the semantic role of causal are initial obliques, but only those causals that behave syntactically as final objects are advanced to 2 via Caus–2 Advancement.

After providing evidence for the two causal constructions (Sections 4.1 and 4.2), I propose an animacy constraint on Caus-2 Advancement in Halkomelem (Section 4.3). Finally, I consider an alternative analysis in Section 4.4.

4.1. Intransitive Causal Clauses

In this section, I provide evidence that in clauses like (47)–(48) the causal is a final oblique and the clause is finally intransitive.

\[(47) \quad ni \ c\acute{a}q' \quad \tau_{\omega} \ k^{w}\tau_{\omega} \ s\acute{x}\acute{t}'\acute{e}k^{w}\cdot s\quad \text{aux} \ \text{astonished} \ \text{obl} \ \text{det} \ \text{carving-3pos} \quad \text{He was astonished at his carving.}\]

\[(48) \quad ni \ c\acute{a}n \ s\acute{i}\tilde{s}i^{?} \quad \tau_{\omega} \ k^{w}\tau_{\omega} \ t\acute{i}ntin \quad \text{aux} \ \text{1sub} \ \text{frightened} \ \text{obl} \ \text{det} \ \text{bell} \quad \text{I was frightened at the bell/telephone.}\]

First, there is no Transitive Marking in (47)–(48). As pointed out in Section 3.1, all finally transitive clauses exhibit transitive suffixes; thus, the absence of Transitive Marking in (47)–(48) provides evidence for final intransitivity. Second, there is no Third Person Agreement in (47) even though the final 1 is third person. Since only a third person nominal heading a final Erg-arc determines agreement [cf. (34)], the absence of agreement in (47) provides evidence for final intransitivity. Third, according to the rule for nominal case given in (27), final obliques are in the oblique case. That the causals in (47)–(48) are in the oblique case follows from an analysis positing them to be final obliques.
Finally, as seen in (49b), quantifiers can be extracted from the final 1 in clauses like (47)–(48).

(49)  a. ni  c’aq’  māk’w  kʷθθa  škəlʔigət  ʔə  kʷθθa  sxt’ēk’w-s
   aux  astonished  all  det  children  obl  det  carving-3pos
   ‘All the children were astonished at his carving.’
   b. māk’w  niw  c’aq’-as  kʷθθa  škəlʔigət  ʔə  kʷθθa
   all  aux:link  astonish-3ssub  det  children  obl  det
   sxt’ēk’w-s
   carving-3pos
   ‘All the children were astonished at his carving.’

Since quantifiers can only be extracted from nominals heading a final Abs-arc [cf. (43)], that the quantifier can be extracted from the final 1 in (49b) provides evidence for final intransitivity.

4.2. Causal-to-Object Advancement

Clauses like (50)–(52), I claim, involve Caus–2 Advancement and are finally transitive.

(50)  ni  xiʔxeʔ-méʔ-t-as  tə  swəyʔqeʔ  θθa  štəniʔ
   aux  ashamed-advC-tr-3erg  det  man  det  lady
   ‘The man was ashamed in front of the lady.’

(51)  ni  c’aq’-miʔ-θ-ämʔ-ʔ-as  tə  štəniʔ
   aux  astonished-advC-tr-1obj-3erg  det  woman
   ‘The lady was astonished at me.’

(52)  ni  con  wəʔ  tciws-mə-θ-ämə
   aux  lsub  already  tired-advC-tr-2obj
   ‘I’m already tired of you.’

First, there is transitive marking in (50)–(52); this follows from an analysis positing final transitivity for these clauses, since finally transitive clauses must exhibit Transitive Marking (Section 3.1). In (50)–(51), where the final 1 is third person, there is Third Person Agreement. Since only final Ergs determine agreement, the final 1 in (50)–(51) is a final Erg, thus indicating final transitivity.

Second, note that the causal in (50) is in the straight case. This follows from an analysis positing that the causal is a final 2, since only final nuclear terms appear in the straight case [cf. (27)]. The causals in (51)–(52) are pronominal and appear in the objective case. Since only final 2s appear in this case (see Section 3.2), this provides evidence that the causal is a final 2.
Finally, as seen in (53b), quantifiers can be extracted from the causal nominal.

(53) a. \textit{ni q'el²-mé²-t-as $k^w\theta_\alpha$ sləntənìʔ mək'w $k^w\theta_\alpha$ x̌ələnìtəm} aux believe-advC-tr-3erg det women all det white men 'The women believed all the white men.'
   b. mək'w niw q'el²-mé²-t-as $k^w\theta_\alpha$ sləntənìʔ all aux:lnk believe-advC-tr-3ssub det women $k^w\theta_\alpha$ x̌ələnìtəm det white men 'The women believed all the white men.'
   *'All the women believed the white men.'

This provides evidence that the causal in (53b) is the final 2, since quantifiers can only be extracted from nominals heading a final Abs-arc [cf. (43)].

4.3. An Animacy Constraint on Causal-to-Object Advancement

I have shown in (1)–(6) two ways of expressing a causal in Halkomelem. First, in (1)–(3) it is an oblique in an intransitive clause. Second, in (4)–(6) the causal advances to 2 and the verb is suffixed with $me^2$. I maintain here that the distribution of these two patterns is regular and predictable.

Observe the following clauses:

(54) a. \textit{ni con c'ànq' $q^w\theta_\alpha$ šxt'ǐəkʰ'w-s} aux lsub astonished obl det carving-3pos 'I was astonished at his carving.'
   b. \textit{?ni con c'ànq'-mi²-t $q^w\theta_\alpha$ šxt'ǐəkʰ'w-s} aux lsub astonished-advC-tr det carving-3pos 'I was astonished at his carving.'

(55) a. \textit{?ni con c'ànq' $q^w\theta_\alpha$ sqʷənemʔ} aux lsub astonished obl det dog 'I was astonished at the dog.'
   b. \textit{ni con c'ànq'-mi²-t $q^w\theta_\alpha$ sqʷənemʔ} aux lsub astonished-advC-tr det dog 'I was astonished at the dog.'

In (54a) the causal is an oblique and the sentence is grammatical. However, in (54b) the causal is a 2 in a Caus–2 Advancement construction and the sentence is ungrammatical. The opposite pattern holds for (55a)–(55b). In (55a), the causal is an oblique; in (55b) it is a 2 in an advancement construction. The latter is much preferred. This pattern is paralleled in (56) and (57):
A Relational Analysis of Halkomelem Causals

(56) a. *ni cən q'elʔ2.ʔə kʷθə sqʷaqʷəlʔ2-s kʷθə ləpliʔ  
    aux 1sub believe oblique det words-3pos det priest  
    'I believed the words of the priest.'  
    
    b. mi cən q'elʔ2-əməʔ2-t kʷθə sqʷaqʷəlʔ2-s kʷθə ləpliʔ  
    aux 1sub believe-advC-tr det words-3pos det priest  
    'I believed the words of the priest.'

(57) a. mi cən q'elʔ2.ʔə kʷθə ləpliʔ  
    aux 1sub believe oblique det priest  
    'I believed the priest.'  
    
    b. *ni cən q'elʔ2-əməʔ2-t kʷθə ləpliʔ  
    aux 1sub believe-advC-tr det priest  
    'I believed the priest.'

I propose that these differences in grammaticality can be captured by an animacy constraint on Caus–2 Advancement as follows:5

(58) a. Causals that are animate preferably advance to 2.  
    b. Causals that are inanimate preferably do not advance to 2.

4.4. An Alternative to an Advancement Analysis

In the preceding sections, I have shown that there are two causal constructions: The causal can be an oblique in an intransitive clause or it can be a 2 in a transitive clause. To account for the semantic similarities of these constructions, I have posited that the causal is an initial oblique in both constructions and that in the second construction the causal advances to 2.

However, an alternative analysis that would also capture the semantic similarities of the two constructions could be posited. Under such an analysis, causals would be assigned the initial grammatical relation of 2, as represented in (59):

(59)  

\[ 2 \xrightarrow{c_i} \text{‘causal’} \]

This analysis makes it possible to account for the object properties of causals in clauses like (4)–(6) without having to posit advancement for these

5 Other advancements in Halkomelem are governed by animacy constraints; for example, 3s and Bens are always animate and they obligatorily advance to 2 (see Gerdts 1981).
clauses. Such an analysis, however, would require an explanation for clauses like (1)–(3), where the causal is an oblique. To handle such clauses, this analysis could posit that the causal is an initial 2 that retreats to oblique, as represented in (60):\(^6\)

(60)

\[
\begin{array}{c}
\text{2} \\
\text{Caus} \\
\text{c}_i \\
\text{c}_{i+1} \\
\end{array}
\]

\text{ 'causal'}

In the following sections, I give two arguments, based on Reflexives and Limited Control Marking, supporting an advancement analysis over a retreat analysis.

4.4.1. Reflexives

In Reflexives, used for clauses involving the coreference of the 1 and the 2, only the 1 is expressed; the reflexive suffix -\(\theta\)at is suffixed to the verb, as seen in (61)–(62).

(61) \(ni\ c\an\ l\ddash x\wedge\ -\theta\at\)
    aux 1sub blanket-self
    'I covered myself with a blanket.'

(62) \(ni\ c\an\ \ddash x\i\q\wedge\ -\theta\at\)
    aux 1sub scratch-self
    'I scratched myself.'

In Gerdts (1981), I give a condition on Halkomelem Reflexives as follows:

(63) \(\text{In Reflexives, the 1 must be coreferential to the initial 2.}\)

This condition accounts for the fact that Reflexives are possible in clauses where a 2 is the initial 2 [e.g., (61)–(62)] but impossible in clauses where the 2 is an initial 3 or Ben [e.g., (64)–(66)].

(64) \(*ni\ c\an\ \ddash x\m\wedge\os\ -\theta\at\)
    aux 1sub give-advA-self
    'I gave it to myself.'

\(^6\) This analysis violates the Oblique Law, which, informally stated, specifies that any nominal bearing an oblique relation must do so in the initial stratum (Perlmutter and Postal 1983).
A Relational Analysis of Halkomelem Causals

(65) *ni q'w̌əl-ətc-ət ʔə kʷəə səpəl
aux bake-advB-self obl det bread
‘He baked the bread for himself.’

(66) *ni con ḍəy-ətc-ət ʔə kʷəə snáxʷ-ət
aux 1sub make-advB-self obl det canoe
‘I made myself a canoe.’

In the case of clauses like (4)–(6), in which the causal is the final 2, reflexives are not possible, as seen in (67)–(69):

(67) *ni con lćiws-ma-ət
aux 1sub tired-advC-self
‘I’m tired of myself.’

(68) *ni con c'aq'-mēʔ-ət
aux 1sub astonished-advC-self
‘I am astonished at myself.’

(69) *ni con q'el-mēʔ-ət
aux 1sub believe-advC-self
‘I believe myself.’

Under an advancement analysis, the ungrammaticality of (67)–(69) follows from Condition (63); since the causal in these clauses is an initial causal that advances to 2, Condition (63) is not met.

Under the retreat analysis, however, there is no apparent account of the ungrammaticality of (67)–(69), as under this analysis the causal in clauses like (67)–(69) is the initial as well as final 2 [see (59)]. Thus, the retreat analysis incorrectly predicts that Condition (63) should be met.

4.4.2. Limited Control Marking

A second argument that causals are not initial 2s is based on Limited Control Marking. In Section 3.1, it was pointed out that verbs in finally transitive clauses have transitive marking; I gave examples involving -(ə)t, the general transitive suffix. A second suffix marking transitivity is -n(əxʷ), which marks limited control—that is, the action was performed accidentally, unintentionally, or with great difficulty. The contrast between the two suffixes can be seen in (70)–(71).

(70) a. ni q'ʷəqʷ-ət-əs ʔə stənəʔ? ʔə kʷəə sqəməłʔ
aux club-tr-3erg det woman obl det paddle
‘He clubbed the woman with the paddle [on purpose].’

b. ni q'ʷəqʷ-əxʷ-əs ʔə stənəʔ? ʔə kʷəə sqəməłʔ
aux club-1.c.: tr-3erg det woman obl det paddle
‘He clubbed the woman with the paddle [accidentally].’
(71)  a. *ni lêm-at-əs əθ stəni?
aux see-tr-3erg det woman
‘He looked at the woman.’
b. ni lâm-naxʷ-əs əθ stəni?
aux see-1.c.:tr-3erg det woman
‘He saw the woman.’

In Gerds (1981), I formulated the following condition on Limited Control Marking:

(72) Limited Control Marking is possible only if the final 2 is also the initial 2 of the clause.

This condition accounts for the fact that 3–2 and Ben–2 Advancement clauses cannot be marked for limited control, as seen in (73)–(75).

(73)  a. *ni ?ám-as-t-əs kʷəθ sqʷəməy? ək kʷəθ stəám?
aux give-advA-tr-3erg det dog obl det bone
‘He gave the dog the bone.’
b. ni ?ám-əs-naxʷ-əs kʷəθ sqʷəməy? ək kʷəθ stəám?
aux give-advA-1.c.:tr-3erg det dog obl det bone
‘He managed to give the dog the bone.’

(74) a. ni yəθ-as-t-əs
aux tell-advA-tr-3erg
‘He told her about it.’
b. *ni yəθ-əs-naxʷ-əs
aux tell-advA-1.c.:tr-3erg
‘He happened to tell her about it.’

(75) a. ni thəy-əlc-at-əs kʷəθ swəyʔəqeʔ ək kʷəθ snəxʷət-s
aux fix-advB-tr-3erg det man obl det canoe-3pos
‘He fixed the canoe for the man.’
b. *ni thəy-əlc-naxʷ-əs kʷəθ swəyʔəqeʔ ək kʷəθ snəxʷət-s
aux fix-advB-1.c.:tr-3erg det man obl det canoe-3pos
‘He managed to fix the canoe for the man.’

In clauses like (4)–(6), in which the causal is the final 2, Limited Control Marking is not possible, as seen in (76)–(78).

(76) *ni caŋ qʾəlʔ-əmə-ənaxʷ kʷəθ ləplit
aux 1sub believe-advC-1.c.:tr det priest
‘I happened to believe the priest.’

(77) *ni ñəyʔ kʷəmə-ənaxʷ kʷəθ sqʷəməyʔ
aux startled-advC-1.c.:tr det dog
‘I was accidentally startled at the dog.’
The ungrammaticality of (76)–(78) follows from an advancement analysis. Although the causals are final 2s, they are not initial 2s but rather initial causals. Therefore, Condition (72) is not met and Limited Control Marking is not possible.

In contrast, the retreat analysis incorrectly predicts that Limited Control Marking should be possible in (76)–(78). Under the retreat analysis, the causal is both the initial and final 2, as seen in the stratal diagram in (59). Therefore, Condition (72) is met and Limited Control Marking should be possible.

Thus, the retreat analysis, because it posits that causals are initials 2s, makes the wrong predictions with respect to the conditions on Reflexives and Limited Control Marking.

5. CAUSAL CONSTRUCTIONS AND THE UNACCUSATIVE HYPOTHESIS

In the previous section, I presented evidence for two types of causal constructions: In those like (79) the causal is both an initial and a final oblique, as represented in (80); in those like (81) the causal is an initial oblique that advances to 2, as represented in (82).

(79) \( ni\ c\ an\ si?si? \quad \Rightarrow \quad k^*\theta\ a\ tintin \)

aux 1sub frightened obl det bell
'I was frightened at the bell/telephone.'

(80)

\[ \begin{array}{c}
\text{P} \\
\text{?} \\
\text{Caus} \\
\text{si?si?} \quad \text{c\ an} \\
\text{\textquoteleft frightened	extquoteright} \\
\text{tintin} \\
\text{\textquoteleft bell	extquoteright} \\
\end{array} \]

(81) \( ni\ c\ an\ si?si^2-me^2-t \quad k^*\theta\ a\ spa\alpha\eta\lambda^*\theta^e^2 \)

aux 1sub frightened-advC-tr det screech owl
'I was frightened at the screech owl.'
In this section, I deal with the issue of the assignment of a grammatical relation to the other nominal in causal constructions—the "experiencer," represented in (80) and (82) by "?." I discuss causal constructions in light of the Unaccusative Hypothesis, proposed by Perlmutter (1978) and Perlmutter and Postal (1984).

5.1. The Unaccusative Hypothesis

According to the Unaccusative Hypothesis, initially intransitive clauses are of two types: those whose initial stratum is UNERGATIVE, which contain a 1-arc but no 2-arc, and those whose initial stratum is UNACCUSATIVE, which contain a 2-arc but no 1-arc. These are represented in (83) and (84) respectively.

(83)  
\[ \text{Unergative} \]

(84)  
\[ \text{Unaccusative} \]

Perlmutter and Postal assert that initial unergativity versus unaccusativity is largely predictable from the semantics of the clause. Verbs in unergative clauses are active, often willed and volitional actions, for example, speak, walk, dance, and knock. In contrast, verbs in unaccusative clauses are verbs of existing, happening, or undergoing, for example, melt, fall, drown, and die. This semantic contrast can be seen clearly in an intransitive verb such as fall, which appears in either initially unergative clauses, as in (85), or initially unaccusative clauses, as in (86).

(85)  
\[ \text{John fell right on cue in the third act.} \]

(86)  
\[ \text{John fell from the second-story window.} \]

Whereas fell is a volitional in (85), it is not volitional in (86).

The unaccusative stratum in (84) is not a well-formed FINAL stratum,
because it violates the Final 1 Law (Perlmutter and Postal 1983). Informally stated, the Final 1 Law requires every basic clause to have a final 1. Thus, in unaccusative clauses, some nominal must advance to 1.

It is possible for the initial 2 to advance to final 1, as represented in (87); this is what Perlmutter (1978) calls Unaccusative Advancement.

\[(87)\]

Notice that there is a crucial difference between Unaccusative Advancement and Passive, given in (88).

\[(88)\]

Although they both involve advancements of a 2 to 1, in the case of Passive, the 2 is in a transitive stratum, whereas, in the case of Unaccusative Advancement, the 2 is in an intransitive stratum.

Perlmutter (1978) provides syntactic evidence for unergativity versus unaccusativity from Impersonal Passives in Dutch. In an Impersonal Passive, a dummy inserted as a 2 advances to 1. Impersonal Passives of initial unergatives are possible in Dutch. Perlmutter gives examples like (89) and (90), as represented in (91).

\[(89)\]  
\textit{Er wordt hier veel geskied.}  
‘It is skied here a lot.’

\[(90)\]  
\textit{Er wordt hier door de jonge lui veel gedanst.}  
‘It is danced here a lot by the young people.’

\[(91)\]

However, Perlmutter claims that Impersonal Passives of initial unaccusatives are not possible. The ungrammatical sentences in (92) and (93) are represented by the stratal diagram in (94).
Perlmutter attributes the impossibility of Impersonal Passives in the case of
initial unaccusatives to the fact that they would violate the 1-Advancement
Exclusiveness Law. (Perlmutter and Postal 1984). The 1-AEX is stated
informally in (95).

(95) No clause can involve more than one advancement to 1.

As can be seen in the stratal diagram in (94), Impersonal Passives of initial
unaccusatives involve both Unaccusative Advancement and Passive. Hence
the violation of the 1-AEX.

Thus, Perlmutter motivates the distinction between two types of initially
intransitive clauses on semantic and syntactic grounds.7

5.2. Arguments for the Initial Unaccusativity of
Causal Constructions

Returning to Halkomelem, I present evidence that causal constructions
are initially unaccusative, as represented in (96).

7 For further research on the Unaccusative Hypothesis, see Davies (1981), Hubbard (1979),
Özkaragöz (1980), Perlmutter (to appear), Postal (1982), Rosen (1981), and Williamson
(1979).
I give two arguments, one semantic and one syntactic, for the initial unaccusativity of causal constructions.

5.2.1. UNACCUSATIVES AND 2S OF TRANSITIVES

It has been claimed that the assignment of initial grammatical relations is determined by the semantic role of the nominals (see the quote from Perlmutter and Postal 1977 in Section 2.1).

One of the facets of the Unaccusative Hypothesis is that it would allow the butter in (97) and (98) to have the same initial grammatical relation.

(97) The butter melted.
(98) John melted the butter.

In each case the butter is semantically the patient, undergoing the act of melting. The Unaccusative Hypothesis allows the butter in (97) to be initial 2, bearing the same initial grammatical relation as the butter in (98), the 2 of a transitive.

By positing initial unaccusativity for causal constructions, a similar parallelism in semantic roles can be captured. Contrast the Caus-2 Advancement construction in (99) with the transitive clause involving an agent and an experiencer in (100).

(99) $ni$ c’ag’-meʔ-θ-ámʔ-as $k\equiv\theta\theta$ John
aux surprised-advC-tr-obj-3erg det
‘John was surprised at me.’ (but I was unaware of John)

(100) $ni$ con c’ag-t $k\equiv\theta\theta$ John
aux 1sub surprise-tr det
‘I surprised John.’ (intentionally)

In (100), the experiencer John is the initial 2 in a transitive. By positing (99) as an initially unaccusative stratum, the experiencer in causal constructions is also a 2. Thus, nominals having the same semantic role with respect to the same verb would be assigned the same initial grammatical relation.

5.2.2. CAUSATIVE CLAUSE UNION AND UNACCUSATIVITY IN HALKOMELEM

Syntactic evidence for the initial unaccusativity of causal constructions comes from Causative Clause Union (CCU) in Halkomelem. First, I will briefly discuss the analysis of CCU proposed in RG. The analysis of Clause Union constructions has two basic ideas:

1. Clause Union constructions are bi-clausal in their initial strata.
2. Every initial dependent of the complement has a grammatical relation in the main clause.
In particular, Perlmutter (personal communication) gives the following proposal for CCU:

(101) **Universal Proposal Associated with Clause Union:**
If an element heads a final P-arc of clause \( K_i \) and a Union (U)-arc of clause \( K_j \) with coordinate \( C_k \), then:
(i) the nominal heading a final ergative (Erg)-arc of \( K_i \) heads a 3-arc with tail \( K_j \) and coordinate \( C_k \), and,
(ii) the nominal heading a final absolutive (Abs)-arc of \( K_i \) heads a 2-arc with tail \( K_j \) and coordinate \( C_k \).

Informally, if the main clause and the complement clause are merged in CCU, then the final ergative of the complement is a 3 in the main clause and the final absolutive of the complement is a 2 in the main clause.

I have argued in Gerdts (1981) that one way of forming Causatives in Halkomelem is through Causative Clause Union. In this case, the predicate is suffixed with the causative suffix -st. I have argued that two constraints are placed on CCU in Halkomelem. First, observe the Causative in (102).

(102) *ni con qʼwəl-ot-staxʷ kʼθə səplîʔ wə səl̓eʔiʔ? aux lsub bake-tr-cs det bread obl det woman
'I had the woman bake the bread.'

I have represented (102) in the stratal diagram in (103).

The complement is a transitive clause, as shown by the transitive marker -(ə)t following the verb root qʼwəl. Causative Clause Union is impossible in (102) regardless of word order or case marking of the nominals. With or without 3-2 Advancement in the main clause, (103) is ill formed.

In contrast, CCU is possible if the complement clause is Antipassive. In (104), note that the verb root qʼwəl is immediately followed by -əm, an intransitive suffix, which in this case marks downstairs Antipassive.
(104)  ni cən q’"əl-əm-stəxʷ əə stən’iʔ əə k’θə səplil aux lsub bake-intr-cs det woman obl det bread ‘I had the woman bake the bread.’

I have represented (104) in the stratal diagram in (105).

(105)

On the basis of the impossibility of CCU in (102), where the complement is a final transitive, and the possibility of CCU in (104), where the complement is a final intransitive, I formulate a constraint on CCU, given in (106).

(106)  Causative Clause Union in Halkomelem is possible only if the complement is intransitive in the final stratum.

However, such a constraint could not account for the ungrammaticality of (107). Here, the complement is a Passive construction (see Section 6.1). Following the verb root q’"əl is the transitive marker -(ə)t and the intransitive suffix -əm, which mark Passive in Halkomelem. Although the complement in (107) is intransitive via Passive, CCU is not possible.

(107)  *ni q’"əl-əl-əm-stəxʷ-əə k’θə səplil əə əə stən’iʔ aux bake-tr-intr-cs-3erg det bread obl det woman ‘He had the bread baked by the woman.’

I have represented (107) in the stratal diagram in (108).

(108)  *

*
On the basis of the impossibility of CCU in (107) and the possibility of CCU in (104), I formulate a constraint on CCU given in (109).

(109) Causative Clause Union in Halkomelem is possible only if the final 1 of the complement is the initial 1 of the complement.

Thus, in a sentence like (107), where the initial 2 of the complement is advanced to 1 via Passive, CCU is not possible.

This constraint on CCU in Halkomelem taken together with the Unaccusative Hypothesis accounts for the contrast between (110)–(112), in which CCU is possible, and (114)–(116), in which CCU is not possible.

(110) \( ni \ can \ ?\eta\theta\-\-astax^w \ k^w\theta\ a \ sq^\w^emey^p \)  
\( \text{aux lsub eat-cs det dog} \)  
'I let the dog eat.'/'I fed the dog.'

(111) \( ni \ can \ ?ima\$\-stax^w \ k^w\theta\ John \)  
\( \text{aux lsub walk-cs det} \)  
'I made John walk.'

(112) \( ni \ can \ ?omet-st-\$ma \)  
\( \text{aux lsub sit-cs-2obj} \)  
'I had you sit down.'

In (110)–(112), the predicates would be classed on semantic grounds as unergative. In the complement, the final 1 is initial 1 and CCU is possible. I have represented (110) in the stratal diagram in (113).

(113)

However, if the predicate would be classed on semantic grounds as unaccusative, CCU is not possible, as shown by (114)–(116).

(114) \( *ni \ can \ woc'ax\-\-stax^w \ k^w\theta\ sc'\$t \)  
\( \text{aux lsub fall-cs det stick} \)  
'I made the stick fall.'
I have represented (114) in the stratal diagram in (117).

By positing initially unaccusative strata for the complements in (114)–(116), the impossibility of CCU is accounted for by Constraint (109). The complement is unaccusative; thus the nominal participating in CCU is the initial 2.

Thus, CCU in Halkomelem provides a test for distinguishing initially unaccusative from initially unergative clauses. Applying this test to the psychological predicates that can appear with causals, we find that CCU is not possible, as shown by (118)–(121).

(115) *ni can kʷəl-stəxʷ kʷə ti
    aux lsub spill/cs det tea
    'I made the tea spill.'

(116) *ni can qʷəl-stəxʷ kʷə sapil
    aux lsub bake/cs det bread
    'I made the bread bake.'

(117) *

(118) *ni can c'aq'-əstəxʷ tə John
    aux lsub surprise/cs det
    'I caused John to be astonished.'

(119) *ni can hiləkʷ-stəxʷ tə John
    aux lsub happy/cs det
    'I made John happy.'

(120) *ni can c'iwałʔ-stəxʷ tə John
    aux lsub annoy/cs det
    'I caused John to be annoyed.'

(121) *ni can θ'áyʔ-kʷ-stəxʷ tə John
    aux lsub startle/cs det
    'I caused John to be startled.'
This follows automatically from Constraint (109) if the initial intransitive strata in (118)–(121) are unaccusative. I have represented (118) in the stratal diagram in (122).

(122) *

Thus, assuming that the constraint in (109) is correct, evidence from CCU provides an argument for the initial unaccusativity of causal constructions.

5.3. 2–1 Advancement

I argued that the experiencer in causal constructions is an initial 2 in an unaccusative stratum. Here, I shall briefly give evidence that the initial 2 advances to 1 via Unaccusative Advancement, as represented in (123).

(123)

First, observe that the experiencer in the causal constructions in (124)–(125) is in the subjective case.

(124) *ni can siʔsiʔ ʔo kʷθo t̂ιntin
      aux lsub frightened obl det bell
      ‘I was frightened at the bell.’

(125) *ni can siʔsiʔ-amenti kʷθo s̰p̰ḛp̰o̰l̰qʷiθoʔ
      aux lsub frightened-advC-tr det screech owl
      ‘I was frightened at the screech owl.’

Since Antipassives participate in CCU but causal constructions do not, it is not possible to analyze the latter as Antipassives.
As discussed in Section 3.2, the subjective case is used for final 1s. If the experiencer were a final 2 we would expect it to be in the objective case. That the experiencer is in the subjective case follows from an analysis involving 2–1 Advancement.

Second, as was pointed out in Section 4.2, in Caus–2 Advancement clauses where the experiencer is a third person, there is ergative agreement. Since Third Person Agreement is determined by final 1s in transitive clauses, the experiencer is a final 1.

6. PASSIVES OF CAUS–2 CONSTRUCTIONS AND THE 1-AEX

In the preceding sections, I have given evidence for the grammatical relations of the causal and the experiencer in causal constructions. The analysis I posit for clauses like (4)–(6) where the causal is the 2 in a transitive clause and the verb is suffixed with -meʔ can be represented in the following stratal diagram:

(126)

At the initial level, the experiencer is a 2 and the causal is an oblique; at the final level, the experiencer is a final 1 via Unaccusative Advancement and the causal is a final 2 via Caus–2 Advancement and the construction is finally transitive.

In this section, I discuss the Passive counterpart of (126). First, I briefly illustrate Passives in Halkomelem; second, I give examples of Passives of Caus–2 Advancement constructions showing that such Passives constitute a violation to a law proposed as a universal by Perlmutter and Postal— the 1-Advancement Exclusiveness Law.

6.1. Passives in Halkomelem

In Halkomelem, there are Passive constructions like that given in (127b) which involve the advancement of a 2 to 1; the 2 in advancing to 1 places the
initial 1 en chômage, as represented in the stratal diagram for (127b), given in (128). I argued for an analysis involving Passive in Gerdts (1981).

Contrast the active transitive clause in (127a) and the Passive clause in (127b):

\[
\begin{align*}
\text{a. } & ni \ q^{\text{no}}l{-}\text{-at-æs} \ \theta \ stëni? \ t\theta \ sce.\text{t}an \\
& \text{aux bake-tr-3erg det woman det salmon} \\
& \text{The woman baked the salmon.}
\end{align*}
\]

\[
\begin{align*}
\text{b. } & ni \ q^{\text{no}}l{-}\text{-at-am} \ \theta \ scë.\text{t}an \ \theta \ \theta \ stëni? \\
& \text{aux bake-tr-intr det salmon obl det woman} \\
& \text{The salmon was baked by the woman.}
\end{align*}
\]

Active transitive clauses and Passive clauses differ with respect to Transitive Marking, Nominal Case, and Third Person Agreement.

In the active transitive clause in (127a), the final 1 precedes the final 2 and both are marked in the straight case, the case used for final nuclear terms. Because the clause is finally transitive, the verb is suffixed with the transitive marker -(æ). Because the final 1 is third person, the verb is suffixed with the ergative marker -æs.

In the Passive clause in (127b), the final 1 (semantically the patient) precedes the 1 chômeur (semantically the agent). The final 1 is in the straight case while the chômeur is in the oblique case, the case used for final non-terms. The verb in Passive clauses is suffixed with both the transitive marker -(æ) and an intransitive marker, -æm. Because Passive clauses are finally intransitive, there is no ergative marker.

Passive, as universally characterized by Perlmutter and Postal (1977), advances the 2 of a transitive stratum to 1. Passive in Halkomelem follows this characterization: Only 2s advance to 1 in Passive; obliques cannot advance directly to 1 via Passive as seen in (129)–(130).

\[
\begin{align*}
q^{\text{no}}l & \quad stëni? & \quad sce.\text{t}an \\
\text{\textit{bake}} & \quad \text{\textit{woman}} & \quad \text{\textit{salmon}}
\end{align*}
\]

\[9\text{In Passives in Halkomelem, both the initial transitive stratum and the final intransitive stratum are marked. A rule for Transitive Marking, stated more precisely, would be: a clause has Transitive Marking if a nominal heading a 2-arc in a transitive stratum heads a final nuclear term-arc in that clause.}\]
(129) a. *ni câm k\"θənik\" rə̄ smənt  
   aux go up det uncle obl det mountains  
   ‘Uncle went up into the mountains.’  

b. *ni cam-am rθ̄ smënt rə̄ k\"θənik\"  
   aux go up-intr det mountains obl det uncle  
   ‘The mountains were gone up into by Uncle.’

(130) a. *ni pən-ət-as k\"θə sqëwθ rə̄ k\"θə sāpəl \n   aux plant-tr-3erg det potato obl det shovel  
   ‘He planted potatoes with the shovel.’

b. *ni pən-ət-am k\"θə sāpəl k\"θə sqëwθ \n   aux plant-tr-intr det shovel det potato  
   ‘The shovel was planted potatoes with.’

6.2. Passives of Caus-2 Constructions

In Caus-2 Advancement constructions we find that the causal can be final 1 in a Passive construction, as exemplified in (131)–(133). The (a) sentences are active transitive—the causal is a 2. In the (b) sentences, the causal is advanced to 2 and from 2 to 1 via Passive, as represented in the stratal diagram for (131b) given in (134).

(131) a. *ni tciws-mə-t-as k\"θə swi\wθəs k\"θə sq\"omēy\p \n   aux tired-advC-tr-3erg det boy det dog  
   ‘The boy is tired of the dog.’

b. ni tciws-mət-am k\"θə sq\"omēy\p rə̄ k\"θə swi\wθəs \n   aux tired-advC-tr-intr det dog obl det boy  
   Literally: ‘The dog was gotten tired of by the boy.’

(132) a. *ni xi\wθə-ne\wθə-t-as tθ̄ swɔ\wθqeθ \θə stën\i \p \n   aux ashamed-advC-tr-3erg det man det woman  
   ‘The man was ashamed in front of the woman.’

b. ni xi\wθə-ne\wθə-t-am \θə stën\i \p \rə̄ tθ̄ swɔ\wθqeθ \n   aux ashamed-advC-tr-intr det woman obl det man  
   Literally: ‘The woman was gotten ashamed in front of by the man.’

(133) a. *ni xi\wθə-ne\wθə-t-as k\"θə spè\wθəθ \n   aux frightened-advC-tr-3erg det bear  
   ‘He was frightened of the bear.’

b. ni xi\wθə-ne\wθə-t-am k\"θə spè\wθəθ \n   aux frightened-advC-tr-intr det bear  
   Literally: ‘The bear was frightened of.’
(134) \[ ( = (131b) ]

That the (b) sentences of (131)–(133) are Passives can be seen by the use of Nominal Case and Transitive Marking. The final 1 (the causal), immediately following the verb, is in the straight case, while the 1 chômeur (the experiencer), following the final 1, is in the oblique case. The verbs in (131b)–(133b) are suffixed with both the transitive marker and the intransitive marker, as was the verb in the Passive clause in (127b).\(^10\)

Notice that in the stratal diagram for Passives of Caus–2 Advancement constructions given in (134) there are two advancements to 1. First, the initial 2 advances to 1 via Unaccusative Advancement. Second, the 2, the initial oblique, advances to 1 via Passive. Thus, such constructions constitute a counterexample to the 1-Advancement Exclusiveness Law, given in (95).\(^11\)

By contrasting the representation of the Passives of Caus–2 Advancement constructions in (134) with the analysis of Impersonal Passives of unaccusatives proposed for Dutch by Perlmutter in (94), it becomes clear that the Halkomelem example is exactly the kind of structure that the 1-AEX is supposed to rule out. Furthermore, if the 1-AEX as a universal constraint is invalid, as the Halkomelem data suggest, then the syntactic arguments from Dutch for the Unaccusative Hypothesis must be reexamined.

7. CONCLUSION

From the discussion of causal constructions, several interesting conclusions can be drawn concerning the grammar of Halkomelem. First, the nominal having the semantic role of causal is an initial oblique. Second, the

\(^{10}\) Transitive Marking, which occurs only in clauses with a transitive stratum, gives evidence against an analysis in which the causal advances directly to 1.

\(^{11}\) Notice that Passives of Caus–2 Advancement constructions also violate various alternative formulations of the 1-AEX, for example, the 1-Advancee Preservation Law (Wachtel 1979).
initial causal can advance to object. In this case, the verb is suffixed with the advancement marker -me². Third, Caus-to-2 Advancement in Halkomelem is subject to an animacy constraint. Whereas inanimate causals are preferably oblique, animate causals preferably advance to 2. Fourth, initially intransitive strata with psychological predicates behave as unaccusatives.

In addition, the discussion of causal constructions has led to several conclusions for universal grammar. First, there exist languages, such as Halkomelem, in which agent and causal differ semantically and syntactically. Whereas agents are initial 1s, causals are initial obliques. Second, I have argued here that the behavior of some causal constructions is best analyzed as involving an initial unaccusative stratum and Caus-to-2 Advancement. Because Passives of Caus-2 Advancement constructions are possible, they constitute a counterexample to a law proposed as a universal — the 1-Advancement Exclusiveness Law.

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