Aspectual properties of unaccusatives and transitives in Sənčáθən[1]

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This study provides an analysis of the aspectual properties of
unaccusatives, control transitives, and non-control transitives
in Sənčáθən (the Saanich dialect of North Straits Salish). I
argue that unaccusatives and non-control transitives form a
natural class as achievements, whereas control transitives are
(non-culminating) accomplishments. This conclusion is based
on two well-motivated diagnostics, the culmination
cancellation test (Bar-el et al. 2005) and two kinds of *almost*
tests (Dowty 1979, Smith 1992, Bar-el 2005).

1   Introduction

Salish languages encode a systematic contrast between two classes of
transitive verbs: control transitives, where the agent is in control of the event, vs.
non-control transitives, where the event happens without intent or after difficulty
(Davis 1978, Watanabe 2003). This study provides an analysis of the aspectual
properties of unaccusatives, control transitives, and non-control transitives in
Sənčáθən (the Saanich dialect of Straits Salish), spoken on or around the
Saanich reserve on the Saanich Peninsula of Vancouver Island, Canada (Montler
1986). I argue that unaccusatives and non-control transitives form a natural class
as achievements, whereas control transitives are (non-culminating)
accomplishments. This conclusion is based on two well-motivated diagnostics,
the culmination cancellation test (Bar-el et al. 2005) and the *almost* test (Dowty
1979, Smith 1992).

2   Unaccusatives and two kinds of transitives in Sənčáθən

In Sənčáθən, unaccusatives are usually bare roots as shown in (1a).
Control transitives are derived from unaccusative roots with the control
transitiviser (CTR) -*t* as shown in (1b), while non-control transitives are derived
from the same unaccusative roots with the non-control transitiviser (NCTR) -
nax^w (Montler 1986) as shown in (1c).

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(1) a. qʷə́y   tsə spéʔəs
       die   D   bear
       'The bear died.'

   b. qʷə́čət   sən   tsə spéʔəs
       die-CTR   1SUB   D   bear
       'I killed the bear (intentionally).'

   c. qʷə́ynəxʷ   sən   tsə spéʔəs
       die-NCTR   1SUB   D   bear
       'I finally managed to kill the bear / I accidentally killed the bear.'

CTR introduces an agent with a conscious control over the event denoted by the root as shown in (1b), while NCTR introduces an agent without a conscious control (Montler 1986) as shown in (1c). This is not the only difference between the two types of transitives, however. As discussed in the following section, the culmination cancellation test and the *almost* test reveal that these two kinds of transitives are also different in aspectual properties.

3   Diagnosing aspectual properties

3.1   The culmination cancellation test

The culmination cancellation test relies on the notion of entailments. Since an entailment is a relation that must hold in all possible worlds, it cannot be cancelled. If the truth of one sentence requires the truth of the other, then the latter is an entailment for the former. For example, the sentence in (2b) is true if the sentence in (2a) is true.

(2) a. The dog was killed.
    b. The dog is dead.

Thus, the following conjunct results in a contradiction.

(3)   # The dog was killed, but it is not dead.

Let us apply this diagnostic to unaccusatives, control transitives, and non-control transitives in Sənčáθən. With the culmination cancellation test, an unaccusative in (4a) and a non-control transitive in (4c) pattern with each other: the cancellation of the culmination effect results in a contradiction. A control transitive in (4b), on the other hand, does not result in a contradiction.

(4) a. #qʷə́y   tə spéʔəs ʔiʔ   ʔawa sqʷáqʷi
       die   D   bear   ACC   NEG   dead
       'The bear died but it is not dead.' – Contradiction!
   b. qʷə́čət   sən   tə spéʔəs ʔiʔ   ʔawa sqʷáqʷi
       die-CTR 1SUB D   bear   ACC   NEG   dead
       'I killed the bear but it is not dead.' – No contradiction.
   c. #qʷə́ynəxʷ sən   tə spéʔəs ʔiʔ   ʔawa sqʷáqʷi
       die-NCTR 1SUB D   bear   ACC   NEG   dead
       'I killed the bear but it is not dead.' – Contradiction!

The result of the diagnostic is summarized in table1.

Table 1

	Culmination cancellation
Achievements	*(contradiction)
Control accomplishments	√
Non-control accomplishments	*(contradiction)

This result suggests that unaccusatives and non-control accomplishments in Sənčáθən have an entailed culmination requirement, but control transitives do not.

3.2   The *almost* test

The English adverb *almost* has different effects on achievements and accomplishments (Dowty 1979, Smith 1992, Rothstein 2004). First, let us consider some English examples.

(5) a. Jack almost noticed the painting.
    b. Jack almost wrote a thesis.

The achievement sentence in (5a) is not ambiguous: it is used when Jack's noticing event was completely cancelled (event-cancellation reading). The accomplishment sentence in (5b), on the other hand, is ambiguous: it has two possible readings. One is an event cancellation reading like (5a), that is, the entire writing event did not start. The other possible reading is that Jack actually started writing the thesis but stopped just before the completion of writing the thesis (event non-completion reading). Bar-el (2005) invokes this test to argue that Squamish Salish[2] accomplishments do not have a final end point. I extend this test to see whether the events in Sənčáθən have an initial and/or final end point.

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[2] A Coast (Central) Salish language spoken on the mainland of the province of British Columbia, Canada.

Sənčáθən has at least two lexical items that seem to correspond to English *almost, čəlel* and *xʷeləq* (Montler 1986). A particle *ʔiʔ* 'accompanying' must appear with both words all the time. They may not exactly mean 'almost' because they are sometimes translated as *just about*, *nearly*, and *soon* as well. However, as Bar-el (2005) suggests, I assume that modifiers such as *almost, nearly*, and *just about* appear in the same syntactic position, and impose similar restrictions on the predicate they modify (Morczycki 2002). So I assume that these two lexical items have similar effects to the English *almost*. However, my fieldwork has revealed that there is some difference between *čəlel* and *xʷeləq*.

3.2.1 Interpretations with *čəlel*

čəlel does not induce ambiguity with achievements: the only available reading is the event non-completion reading as shown in (6).

(6) a. čəlel   ʔiʔ   lət'ᶿ   tsə nəsqʷətən
       almost   ACC   get full D 1sg.POS-bucket
       'My bucket was almost full (The filling up event stopped just before the bucket got full).'

   b. čəlel   sən   ʔiʔ   tas
       almost   1.sg   ACC   arrive there
       'I am almost (arriving) there (I am heading for my destination, and will be there soon).'

   c. čəlel   ʔiʔ   qʷə́y   tsə nəpus
       almost   ACC   die   D my-cat
       'My cat was almost dead (The cat was seriously sick, and I thought it would die).'

In contrast, *čəlel* with a control-transitive produces ambiguity: both the event-cancellation reading and the event-non-completion reading are possible depending on the situation. This is shown in (7).

(7) a. čəlel   sən   ʔiʔ   xə́lət   tsə nəsxʷiʔém'
       almost   1sg.SUB   ACC   get written-CTR D 1sg.POS-story
       'I almost wrote my story.'
       Reading: √I didn't start writing my story / √I started writing my story but didn't finish.

   b. čəlel   sən   ʔiʔ   let   tsə latem
       almost   1sg.SUB   ACC   get fixed-CTR   D table
       I almost fixed the table.
       Reading: √I didn't start fixing the table / √I started fixing the table, but didn't finish.

c. čəlel sən ʔiʔ lət'ᶿát tsə nəsqʷətən
   almost 1sg.SUB ACC get full-CTR D 1sg.POS-bucket
   I almost filled my bucket.
   Reading: √I didn't start filling my bucket / √I started filling my bucket, but didn't finish.

In contrast, *čəlel* does not yield ambiguity with non-control accomplishments: only the event-non-completion reading is available as shown in (8).

(8) a. čəlel sən ʔiʔ lenəxʷ tˢə nəsnəxʷəɬ
      almost 1sg.SUB ACC get fixed-NCTR D 1sg.POS-canoe
      'I almost fixed (up) the canoe.'
      Reading: *I didn't start fixing my canoe / √I started fixing my canoe, but didn't finish it.

   b. čəlel sən ʔiʔ x̌əlnəxʷ kʷsə nəsx̌ʷiʔém'
      almost 1sg.SUB ACC get written-NCTR D 1sg.POS-story
      'I almost write up my story.'
      Reading: *I didn't start writing my story / √I started writing my story, but didn't finish it.

   c. čəlel sən ʔiʔ čəqʷnəxʷ tsə sčaaɬ
      almost 1sg.SUB ACC get burned-NCTR D wood
      'I almost burned the wood.'
      Reading: *I didn't start burning the wood / √I started burning the wood, but didn't finish it.

The table below summarizes the results of the *čəlel* test:

Table 2

	Event cancellation reading	Event non-completion reading
Unaccusatives	*	√
Control transitives	√	√
Non-control transitives	*	√

As the table shows, unaccusatives and non-control transitives pattern with each other with respect to the (un)availability of the two readings, while control transitives behave differently.

3.2.2 Interpretation with *xʷeləq*

Though *xʷeləq* is also usually translated as the English 'almost', its function is slightly different from *čəlel*. Firstly, *xʷeləq* is not compatible with unaccusatives: neither interpretation is available with this adverb. This is shown in (9).

(9) a. *x^{w}eləq   sən   ʔiʔ   tečál
          almost   1.sg ACC   arrive here
          'I almost arrived here.'
     b. *x^{w}eləq   sən   ʔiʔ   tas
          almost   1.sg ACC   arrive there
          'I almost arrived there.'

The effect of *x^{w}eləq* on control-transitives also differs from that of *čəlel*: only the event-cancellation reading is available as shown in (10).

(10) a. x^{w}eləq sən   ʔiʔ   xə́lət   tsə nəsx̌^{w}iʔém'
          almost   1sg.SUB   ACC   get written-CTR D   1sg.POSS-story
          'I almost wrote my story.'
          Reading: √I didn't start writing my story / *I started writing my story,
          but didn't finish.
      b. x^{w}eləq sən   ʔiʔ   leṯ   tsə latem
          almost   1sg.SUB   ACC   get fixed-CTR   D   table
          'I almost fixed the table.'
          Reading: √I didn't start fixing the table / *I started fixing the table, but
          didn't finish.

Lastly, *x^{w}eləq* is not compatible with the non-control accomplishments, like unaccusatives.

(11) a. *x^{w}eləq sən   ʔiʔ   le**nəx^w**   tsə latem
          almost   1sg.SUB   ACC   get fixed-NCTR   D   table
          Intended: I almost fixed the table.
      b. *x^{w}eləq sən   ʔiʔ   xə**lnəx^w**   tsə nəsx̌^{w}iʔém'
          almost   1sg.SUB   ACC   get written-NCTR D   1sg.POS-story
          Intended: I almost wrote my story.

The following table summarizes the result of the *x^{w}eləq* test.

Table 3

	Event cancellation reading	Event non-completion reading
Unaccusatives	*	*
Control transitives	√	*
Non-control transitives	*	*

Though the pattern of available interpretations is different from the *čəlel* test, the *x^{w}eləq* test confirms that unaccusatives and non-control transitives must be grouped together as well.

4   Semantics of unaccusatives and two kinds of transitives

All the diagnostics discussed in section 3 (the culmination cancellation test and two kinds of *almost* test) revealed that unaccusatives and non-control transitives pattern with each other, while control transitives do not. Based on the results, I argue that control transitives and non-control transitives are aspectually distinct classes: control transitives are (non-culminating) accomplishments (c.f. Bar-el, Davis and Matthewson 2005, Bar-el 2005) and non-control transitives are achievements. I also argue that unaccusatives and non-control transitives are achievements, the only difference being that the former is intransitive and the latter transitive.

I extend Rothstein's (2004) version of a neo-Davisonian semantics of events and propose a temporal semantics for each class as shown in (12).

(12) a.   Unaccusatives (intransitive achievements):
$\lambda x.\lambda e.[(BECOME(P))(e) \wedge Th(x, e)]$

   b.   Non-control transitive (transitive achievements):
$\lambda x.\lambda y.\lambda e.[(BECOME(P))(e) \wedge Ag(y, e) \wedge Th(x, e)]$

   c.   Control-transitives (non-culminating accomplishments):
$\lambda x.\lambda y.\lambda e[(DO(P))(e) \wedge Ag(y, e) \wedge Th(x, e) \wedge [\forall w'[w'$ is an inertia world w.r.t w at the beginning of $e \rightarrow [\exists e'[e'$ is a culmination of e in w' & e causes e'in w']]]]$

Control transitives are non-culminating accomplishments because the control transitiviser -*t* not only supplies an agent with conscious control and a process event DO, but also moves culmination from the actual world to inertia worlds (cf. Bar-el et al. 2005). In contrast, their non-control counterparts are transitive achievements, as the non-control transitiviser -*nax*ʷsupplies an agent with no conscious control but not a DO event, and it does not move culmination from the actual world to inertia worlds.

Unaccusatives and non-control transitives entail a BECOME event, which represents the culmination of an event. Due to this entailment, the culmination cancellation is not allowed for unaccusatives and non-control transitives. Since these two classes entail only a BECOME event but not a DO event, *čəlel* induces only the event non-completion reading. As for the infelicity with *x*ʷ*eləq*, I suggest that the adverb picks out only the DO event (or agentivity). Since unaccusatives and non-control transitives do not entail a DO, the adverb is not compatible with these two kinds of constructions.

In contrast, control transitives do not result in a contradiction with the culmination cancellation test because the culmination is not an entailment, but it is an implicature as shown in (12). Since this type of sentence entails a DO event, both *čəlel* and *x*ʷ*eləq* are compatible, yielding the event cancellation reading. The event non-completion reading is also available in an appropriate context due to the culmination implicature.

5   Conclusion

This paper has argued that in Sənčáθən, unaccusatives and non-control transitives together form an aspectual class as achievements, whereas control transitives alone form another class as (non-culminating) accomplishments. This conclusion has been deduced from the results of two well-motivated diagnostics, the culmination cancellation test and the almost test. The semantics of each class has also been proposed, each of which accounts for the result of the tests discussed above.

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