Representing events in Saanich (Northern Straits Salish): the interaction of aspect and valence

by

Claire Kelly Turner

Submitted for the degree of Doctor of Philosophy

Faculty of Arts and Human Sciences
University of Surrey

January 2011

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Claire Turner
University of Surrey
January 2011
The linguistic representation of events in time results from the interaction of various components: the inherent semantics of a given verb, derivational morphology, aspect, argument structure, adverbial modification, etc. In the Salish languages of Western North America, a great deal of information about argument structure is given by derivational affixes, and recent work on predicate classification in Salish languages has shown that some of these affixes affect the situation type (i.e., Vendlerian/Aristotelian aspectual class) of a predicate. This thesis examines the interaction of derivational affixes with both situation type and grammatical aspect in the Saanich dialect of Northern Straits Salish (SENČOTEN). Drawing mostly on primary fieldwork with speakers of this highly endangered language, I argue that aktionsart (derivational aspectual morphology), situation type, and grammatical aspect are distinct but interacting categories relevant to Saanich temporal interpretation. The thesis provides the most comprehensive description of Saanich grammatical aspect to date, by investigating its morphological status, its semantic restrictions, and its use in discourse. Building on previous analyses of aspect in Saanich and other Salish languages, I argue for a two-way inflectional distinction between perfective and imperfective aspect, and provide further evidence that the traditionally named derivational 'control' distinction affects situation type. Lastly, I examine the use of aspect in non-elicited contexts. The thesis supports two cross-linguistic generalisations: i) the relevance of argument structure to telicity, and ii) the correlation between telicity and perfectivity.
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List of abbreviations and glossing conventions

<p>| 1 | first person          |
| 2 | second person         |
| 3 | third person          |
| A | AIA (ability and involuntary-action) |
| AGENT | agent                |
| ANTIP | structured activity antipassive |
| AUX | auxiliary             |
| C | control               |
| CAUS | causative            |
| CL | classifier            |
| CMD | command               |
| CNJ | conjunctive subject   |
| COM | comitative conjunction|
| COMP | complementizer       |
| CONJ | conjunction          |
| CONNEC | connector (between root and lexical suffix) |
| CONTIN | continuing prefix    |
| CONTR | contrastive conjunction |
| DEM | demonstrative         |
| DESID | desiderative         |
| DET | determiner            |
| DIM | diminutive            |
| DIR | direct                |
| DIRECT | directional        |
| DIST | distal                |
| DRV | directive             |
| EFF | effort transitive     |
| ERG | ergative              |
| EV | evidential            |
| EXPLAN | explanatory       |
| FEM | feminine              |
| FUT | future                |
| GEN | genitive              |
| GNRL | general               |
| HAVE | have                  |
| IMM | immediate             |
| INCH | inchoative            |
| ING | ingressive            |
| Impf | imparfait             |</p>
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<tr>
<th>Abbreviation</th>
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Notes on glossing conventions:

❖ Where possible, I follow the Leipzig Glossing Rules, found at http://www.eva.mpg.de/lingua/resources/glossing-rules.php, although I have chosen to use the more recognisable FEM instead of F for FEMININE.

❖ Affixes are separated from their bases by a hyphen -, reduplication is indicated with a tilde ~, infixation with angle brackets <>, stem change with a backslash \, and morphological information which has no realisation with square brackets [ ]. See §3.5 for more details of my conventions with respect to aspect morphology.

❖ Resultative aspect is indicated through stem shape and prefixation (Turner 2007) so RES normally appears twice in one gloss.

❖ The semi-colon is used when two SENCOTEN elements are formally unsegmentable due to phonological coalescence or contraction (e.g., tθo ?ən GNRL.DET 2POSS ‘your’ is regularly pronounced tθəni, which I gloss as GNRL.DET;2POSS).

❖ The forward slash is used to indicate alternate meanings for a given element, but note that sometimes an element has more than one meaning but I have only included the meaning relevant to the given example.

❖ Full words in small caps not appearing in the above list are lexical suffixes. However, lexical suffixes and other derivational suffixes are only glossed when relevant. See Montler (1986: 65) for a list of lexical suffixes in SENCOTEN.
Dave Elliott’s SENĆOŦEN alphabet

The following table lists equivalents between Dave Elliott’s SENĆOŦEN alphabet and both the North American phonetic alphabet (NAPA) in use by most linguists working on Salish languages, and the International Phonetic Alphabet. Note that orthographic representations may not be totally consistent, particularly with respect to the comma, which is used for a variety of purposes, including resonant glottalisation. The orthographic lines in my examples reflect either the spelling that was given to me by the speakers or my own transcription; the NAPA line is generally a broad phonemic transcription.

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Acknowledgements

HÍ SW KE SIIÁM: First to the two WSÀNEĆ elders (who wish to remain anonymous) who took their time and energy to work with me. Over the years you have taught me many things about SENĆOŦEN and life. I am very grateful to those people in the WSÀNEĆ community who helped to make my fieldtrips possible and easier, and who were so welcoming, especially the elders’ families, John Elliott, Belinda Claxton, Andy Paul + family, and Adelynne Claxton. And to Janet Leonard, who fits into many categories here, thank you for all your help with fieldwork, linguistic discussions, and friendship.

To my UK supervisors Grev Corbett and Dunstan Brown, I am very grateful for all your academic and moral support, from the moment I first talked about doing a PhD here. Thanks to my Australian supervisor Bill: every time we met you provided very helpful comments and career advice. I would like to thank the rest of the SMG for providing such a stimulating environment: Matthew Baerman, Patricia Cabredo Hofherr, Maris Camilleri, Marina Chumakina, Scott Collier, Penny Everson, Sebastian Fedden, Magda Fialkowska, Anna Kibort, Sasha Krasovitsky, Ali Long, Lisa Mack, Kasia Marchewka, Enrique Palancar, and our long term visitors Tania Paciaroni, Anna Thornton, and Isabel Balteiro. Thanks and best wishes to the other postgraduates in the English department. Thank you also to the other academic and admin staff in the department for encouragement, especially Peter Barta and Marion Wynne-Davies; and to Eva Ogiermann for very helpful last minute advice. I am also very grateful to Emmon Bach and Matthew Baerman for examining the thesis and providing useful, thought-provoking questions and comments.

I would not have been able to do this PhD without funding from a University of Surrey Research Scholarship and from the Surrey Morphology Group, and fieldwork was made possible with financial help from the Jacobs Fund, the Phillips Fund, and the British Association for Canadian Studies. To all these organisations I am very grateful.

Thank you to the many people who have provided helpful comments and discussion of my work, especially Su Urbanczyk, Ewa Czaykowska-Higgins, Tom Hukari, Adam Werle, Sunghwa Lee, Sonya Bird, Marlon Caldecott, Leslie Saxon, and the rest of the Salish/Wakashan Group; Donna Gerdts, Pat Shaw, Pier Marco Bertinetto, Leora Bar-el, Henry Davis, Andrea Wilhelm, and Peter Jacobs.

I am very grateful to everyone who made my stays in Victoria possible, especially the University of Victoria Linguistics Department, Tara Schedlich and the Cienskis for accommodation, Tian Jun for storage in Victoria, and Ali and Gary for storage in Surrey.

Thank you to everyone who helped with filming, acting, and providing sets for the fieldwork videos: James Phillimore, Katie Phillimore, Victoria Derry-Thomas, Phil Richardson, and Horace Archer.

To my friends and family stretched across the globe: thank you for all your help and encouragement over the years. I am especially grateful to Joe and Maria Kelly for helping me settle in the UK, to Ron and Teresa Turner for all of their parental love and help with moving and storage, to James Turner for always believing in my abilities, and to HOLES for your company and loving support, here and across the ocean.
Chapter 1  Introduction

The study of aspect reaches over a wide area, touching on almost every sub-discipline of linguistics. Previous research on the way in which temporal information is conveyed in the world's languages has shown that it involves the interaction of lexical semantics, productive morphology (both derivational and inflectional), argument structure, quantization of arguments, adverbial modifications, discourse context, and narrative conventions. The specific focus of my research is a subset of these factors, specifically, the interaction of argument structure and derivational morphology with semantically driven predicate classification (stativity, telicity, durativity) and with grammatical aspect (perfective, imperfective). In English, derivational morphology plays a very small role in the temporal properties of predicates. However, in the Salish languages of Western North America, the role of derivational morphology is important and principled. In this thesis, I investigate these three levels in SENĆOTEN, a dialect of Northern Straits Salish.

Grammatical aspect gives the temporal relationship of a situation with respect to some reference time and I will argue that it is an obligatory inflectional feature for all verbs in SENĆOTEN. Its two values are perfective, which places some sub-part of the situation\(^1\) within a reference time (1.1a), and imperfective, which places the reference time within the time of the situation (1.1b) (definitions based on Klein 1994, Kiyota 2008). As commonly assumed following Bennett & Partee (1972/2004), times are taken to be intervals, rather than moments.

(1.1) a. DILEM LO, TE Janet
tilm=lo?θοJanet
sing[PFV]=PSTFEM.DETJanet
‘Janet sang (already); Janet was going to sing.’ (18.4)^2

\(^1\) This is not necessarily a proper sub-part, since the whole situation may be located within the reference time. However, Kiyota (2008) argues that the sub-part must consist minimally of an atomic sub-event, the atomic sub-events being given in his logical definitions for the different situation types. This means that for activities such as that given in (1.1) which he defines as including a BECOME (inception) and a DO (process) subevent, must include either the inception, the process, or the entire situation (Kiyota 2008: 92). See §5.1 for further discussion.

\(^2\) Abbreviations and an explanation of glossing conventions are found at the beginning of this thesis. In general, I follow the Leipzig Glossing Rules where possible.
The derivational morphology considered in this thesis is subdivided into various types. One type is aktionsart morphology, which focusses on some subphase of a situation (Binnick 1991), and which I will argue can derive a lexeme with a different part-of-speech from its base. Example (1.2) shows an adjective representing a state (a), and a verbal inchoative derived from that state (b).

(1.2) a. CEK TTE SWIÊKE, 
čaq tleş? swâyqa?
big GNRL.DEM man 
‘That man is big.’ (47.7)
b. ĈEKSOT TTE SOL 
čaq-sat tlesai saå
big-INCH[PFV] GNRL.DEM road 
‘The road is getting bigger.’ (6.35)

Predicate classification schemes for Salish languages include two broad types: one which distinguishes unaccusativity, focussing on thematic roles of arguments, and one which distinguishes situation type, focussing on temporal properties of predicates. I will provide some evidence that the two are parallel (as argued for by H. Davis & Demirdache 2000) in chapter 4, where I compare Kiyota’s (2008) tests for situation type in SENÇOTEN with Gerdts’s (1988, 1991, 2006; Gerdts & Hukari 2006a, fc) tests for unaccusativity in the closely related language Halkomelem. I find that unaccusatives are generally telic, while unergatives are generally atelic. Example (1.3) shows an unaccusative representing a telic predicate (a) and an unergative representing an atelic predicate (b).

(1.3) a. CEL TTE NE TI 
k*al tlo no ti 
spill GNRL.DET 1SG.POSS tea 
‘My tea got spilled.’ (6.22)
b. YÀ, SEN U, ŠTEN OL, 
gô=1SG.SBJ CONTR=walk=LIM 
‘I’m just going to walk.’ (Fieldwork 2006)
semantic classes. This research, along with research into event structure, has shown the importance of derivational morphology. As H. Davis & Demirdache (2000: 97) note, "the lexical decomposition of the meaning of a predicate into aspectual classes or event types...is morphologically transparent in Salish". However, the specific interaction of derivational morphology with grammatical aspect in any Salish language has remained largely unaddressed (although N. Mattina 1996 provides some investigation of this in Okanagan). In this thesis, I combine morphological and semantic investigations of the interaction between derivational morphology, situation type, and grammatical aspect. In addition, this is, to my knowledge, the first work on Salish aspect to look at data from non-elicted discourse (texts, conversations, and descriptions of videos).

I begin with the observation that certain predicates appear to be incompatible with certain grammatical aspects. Given this observation, my research started with the following questions: are there any restrictions on aspect based on predicate class? If so, what is the nature of the classes which are incompatible with certain aspects? Predicate classification in Salish languages has been the subject of much investigation; however, there are various ways in which predicates have been classified: parts of speech (lexical categories), unaccusativity, agent control, derivational morphology, and situation type. Aspect in Salish languages is less thoroughly investigated, but most authors agree there is a fundamental perfective-imperfective distinction (Kinkade 1996). However, there are also a number of other categories present in Salish languages which are aspectual in a broader sense, like resultative and inchoative. Hence, before answering my initial research question, it is necessary to do three things. First, I investigate which categories to include in grammatical aspect. Second, I compare the various predicate classification approaches taken for Salish languages. Third, I investigate the semantics and function of the SENCOTEN aspects.

On the whole, I find that the encoding of temporal information in SENCOTEN follows several cross-linguistic patterns. It contains a perfective-imperfective distinction which can be captured by Klein's (1994) original definitions for aspect, and which parallels that of other languages. Aspect is sensitive to durativity, as it is in other languages (Comrie
1976, Smith 1997, Wilhelm 2007). There is a correlation between telicity and perfectivity, such that strong telic predicates are rarely used and are dispreferred in the imperfective aspect (Andersen & Shirai 1994, Shirai & Andersen 1995, Wagner 2009). Lastly, like other languages, it appears that SENCOTEN is not adequately described by the four-way distinction proposed by Vendler (1957) for situation type classification in English (Rappaport Hovav 1998, Tatevosov 2002).

1.1 SENCOTEN

SENCOTEN (sometimes called Saanich) is the language of the Saanich community of Vancouver Island. There is currently no conventional way to write the word SENCOTEN (pronounced [san'tʃəθən]) in the English alphabet. I represent it in the SENCOTEN orthography developed by Dave Elliott Sr. and used by many people in the Saanich community (see front of thesis). It is one of a number of dialects spoken in and around the Strait of Juna de Fuca and the Haro and Rosario Straits which separate Vancouver Island from mainland British Columbia and Washington (Montler 1999). This group of closely related dialects was originally called Straits Salish or Straits Salishan, or sometimes just Straits. Figure 1.1 gives a map of the Straits Salish dialects.

Figure 1.1: Map of Straits Salish speaking area (Galloway 1990)
Montler (1999) argues that Straits is composed of two distinct languages, Klallam (or Clallam; iso code clm) and Northern Straits (or North Straits; iso code str) and this distinction has been generally accepted in the linguistic literature on Salish languages. SENĆOTEN is one of six dialects of Northern Straits. Many of the claims that I make in this thesis could probably be extended to all of Northern Straits and even Klallam. However, since I have never investigated any of the other Northern Straits languages, or Klallam, I restrict my claims in general to SENĆOTEN.

Northern Straits and Klallam are in turn members of the Central Salish branch of the Salish language family. A genealogy is given in figure 1.2. Branches of the family are in italics, and languages in plain type. I give the various dialects of Northern Straits (indented), but not those of other languages. Indigenous names and alternate names are only included if they appear in the thesis.
Figure 1.2: The Salish language family

Bella Coola
Bella Coola (Nuxalk)

Central Salish
Comox-Sliammon
Pentlatch
Sechelt
Squamish (Skwxwú7mesh)
Halkomelem (including Upriver Halkomelem, Musqueam, Cowichan)

Straits
Northern Straits
Sooke
Songish
Saanich (SENČOTEN)
Lummi
Samish
Semiahmoo

Klallam
Nooksack
Lushootseed
Tswana

Tsamosan
Quinault
Lower Chehalis
Upper Chehalis
Cowlitz

Tillamook
Tillamook

Interior Salish
Lillooet (St’àt’imcets)
Thompson (Nlíélígépmx)
Shuswap
Colville-Okanagan
Columbian (Moses-Columbian, Nxa?amx?íncin)
Spokane-Kalispel-Flathead
Coeur d’Alene

(based on Czaykowska-Higgins & Kinkade 1998: 3; Montler 1999: 463)

The traditional area where Salish languages were spoken extends through most of southern British Columbia, large parts of Washington, and smaller parts of Oregon, Idaho, and Montana. The extent of the Salish speaking area is shown in the following map, which shows Northern Straits and all of the other Salish languages in relation to neighbouring aboriginal languages.
An important neighbour to SENĆOTEN, linguistically speaking, is the Cowichan dialect of Halkomelem, spoken to the northwest of SENĆOTEN on Vancouver Island (see figure 1.1). There has been considerable interaction and inter-marriage between the two communities and most people who speak SENĆOTEN also speak Cowichan (but not vice versa). Occasionally, Cowichan words were used in the speech of the SENĆOTEN speakers I worked with, but these were normally picked up immediately and corrected, since the two speakers were particularly careful about distinguishing the two languages.

\[^4\] I am grateful to Ewa Czaykowska-Higgins and to de Gruyter Mouton for permission to reproduce this map here. The original book (©1998 de Gruyter Mouton) is available for purchase at http://www.degruyter.de. The map was adapted by Robert D. Turner for Czaykowska-Higgins & Kinkade (1998) from the map ‘Native languages of the northwest coast’ (Cameron Suttles & Wayne Suttles; Oregon Historical Society 1985).
The Salish languages as a whole are highly endangered, and Northern Straits is no exception. Czaykowska-Higgins & Kinkade (1998: 65) list one possible speaker of Samish and fewer than twenty fluent speakers of SENĆOŦEN, with no speakers of other dialects. Janet Leonard (pc) estimate that the number of SENĆOŦEN speakers is under 20, that there are at least 30 adults learning the language, and that at least 10 people teach in various capacities in the community. These numbers are confirmed by John Elliott, a Saanich language teacher, language activist, and semi-fluent speaker. Brent Galloway (pc) estimates that there are currently approximately 3-5 fluent speakers of Samish.

The reasons for the extreme endangerment of SENĆOŦEN are the same as those for other languages of British Columbia (and North America generally): population decline, largely due to disease; the growing influence of English; and the earlier existence of residential schools and other schools where children were severely punished and abused for speaking their indigenous languages (Elliott 1990, Kinkade 1991). The last factor has been the most devastating, but the proximity of the Northern Straits speaking communities to the cities of Victoria, Bellingham, and Vancouver has surely meant that the influence of English over Northern Straits has been particularly strong as well. The Ethnologue lists Northern Straits as “nearly extinct”. However, over the six years that I have been working with SENĆOŦEN speakers, the effort, resources, and money put into language revitalisation within the community has grown steadily. Although it is difficult to judge, my personal estimate is that the language will continue to have some life for the time being. Like other indigenous languages in North America, it appears to be an important factor in the sense of cultural identity for young people in the Saanich community.

I have been working with two SENĆOŦEN-speaking elders since 2004, when I started my Master’s programme at the University of Victoria. At that time, the university had a joint grant with language organisations in the Saanich and Cowichan communities, and my Master’s supervisor, Dr. Suzanne Urbanczyk, also held a grant to study non-concatenative morphology in Salish and Wakashan languages. One of the SENĆOŦEN elders was our consultant for a field methods class, and my fellow student Janet Leonard
and I had the opportunity to continue working with this elder throughout our Master’s degrees. In 2005, the first elder was joined by a second, and the four of us continued our work together. Over the first two years of my doctoral research, I worked again with the two elders. Sadly, on my third field trip, one of the elders passed away while I was in the Saanich area. It is customary in linguistic fieldwork on North American languages to thank and honour one’s consultants by name in a prominent place at the beginning of the work. Although I do thank and honour the two elders I worked with, I have not named them, as they prefer to remain anonymous. The elder who passed away, in particular, always maintained that he did not wish to be named, saying that SENĆOTEN belonged not just to him, but to all the Saanich people. One of the elders I worked with was from West Saanich, and one from East Saanich; these are listed as separate sub-dialects by Montler (1986, 1999), and there are some some differences between them. Throughout the thesis, it is occasionally necessary to distinguish between the judgements of the two speakers. In these instances, I will refer to the West Saanich speaker as Speaker 1 and the East Saanich speaker as Speaker 2.

In this thesis, SENĆOTEN examples that result from my fieldwork are always written in both the Dave Elliott orthography and the North American phonetic alphabet. This includes questionable examples, or examples which were variably accepted (indicated with ?). Ungrammatical examples (indicated with *) and infelicitous examples (indicated with #) are written only in the phonetic alphabet. Examples found in other work on SENĆOTEN which does not use the SENĆOTEN orthography are provided only in the phonetic alphabet, in the way in which they are presented in the original. I have modified glossing, however, in order to maintain consistency with the examples in my thesis. Examples from other Salish languages are unmodified, except where a common term is indicated but a different abbreviation used from my conventions. So, for example, some authors use ISUB for first singular subject; I have changed this to 1SG.SBJ, which is consistent with my conventions and with the Leipzig Glossing Rules which are adopted
where possible throughout the thesis. Glossing abbreviations and an orthography key are provided in the front of the thesis.

1.2 Methodology

This research has relied heavily on fieldwork and associated data analysis. Over the three years of my PhD degree, I conducted three field trips to Vancouver Island for 2-3 months each spring. During these field trips I worked with the two elders mentioned in §1.1 for a total of 60 hours in 2008 and 75 hours in 2009. In the third year, Speaker 2 was badly ill and passed away, and so I worked only with Speaker 1 for approximately 44 hours. Since there was some leftover funding, some additional fieldwork was carried out over the next five months by Janet Leonard (mentioned in §1.1), who is pursuing a PhD at the University of Victoria on SENĆOTEN phonology. After each field session, I entered transcriptions and fieldnotes into a database of SENĆOTEN sentences. I will describe my field methods first, and then talk about the database.

My fieldwork involved a combination of elicitation (through the medium of English and through visual stimuli) and speaker judgements and translations of constructed SENĆOTEN sentences. Finding answers to the research questions specified at the beginning of this chapter required further documentation of SENĆOTEN and access to SENĆOTEN speakers in order to ask about specific verb-aspect combinations in the language and carry out tests aimed at predicate classification. Due to the nature of some of the tests, it was not possible to rely entirely on textual material, especially since there are currently only a few available texts in SENĆOTEN.

Previous fieldwork on SENĆOTEN, undertaken by myself and others, has generally relied on direct elicitation, which essentially involves translation from English to SENĆOTEN and from SENĆOTEN to English. Especially given that all living SENĆOTEN speakers are fluent English speakers, the direct elicitation method has as one disadvantage a possibility of English interference. For example, when asking for imperfective unaccusatives, I often find that the sentence I am asking for is not very good
in English. As Matthewson (2004b: 386) has argued, using ungrammatical or infelicitous metalanguage is not a successful way to obtain data in the language being researched. Even when English sentences are perfectly grammatical, it is likely that their structure will influence SENCÖTEN. For example, since for most verbs English non-progressive is not used for ordinary present tense clauses, it is difficult with direct elicitation alone to tell whether SENCÖTEN perfective can have present time reference.

As an alternative to elicitation, there is grammaticality/felicity judgement, argued for by Matthewson (2004b) and used in recent work on Salish aspect (Bar-el 2005, Kiyota 2008). This method involves setting up some context through a description in the metalanguage or a visual aid and then presenting the speakers with a constructed sentence in the language of study to see if it is appropriate in a given context. Speakers usually distinguish between what is ungrammatical and what is infelicitous (what sounds wrong vs. what sounds funny or just doesn’t make any sense).

Felicity judgements can have the same disadvantage as elicitation, but have the added benefit that they allow us to see what is possible and what is not possible in the language. What is obvious in Bar-el’s (2005) work especially is that this method also provides access to speaker’s intuitions regarding the use of particular verbs and constructions in their language. Bar-el includes various comments that speakers of Skwxwú7mesh and English made when she was carrying out her tests, and these help to inform the construction of hypotheses about the source of (in)felicity. This is true for SENCÖTEN too; if I presented a sentence which was ungrammatical or infelicitous in the given context, the speakers would offer an alternative sentence and/or an alternative context that would work better. Even when presented with felicitous sentences, the speakers sometimes provided alternative sentences, which they felt were more appropriate ways to refer to the situation. This was important to my research, since I am interested not only in what is possible, but also in what is preferred, when looking at correlations between predicate classification and grammatical aspect use (§5.3).
In addition to traditional elicitation from English to SENČOFEN and grammaticality/felicity judgements, I also made some use of visual prompting, using pictures and film. This method has the advantage of directing the language use towards specific structures without having to use a metalanguage. This was used in my initial fieldtrip with a fair amount of success. The initial aim of the method was to determine the possibility of referring to punctual situations (achievements) and situations with no causer (unaccusatives) using the imperfective aspect. In this aim the task was moderately successful. However, this being the first time I had carried out such a task, some of the contexts provided did not yield the desired results. I often ended up using the films as a context in which to ask the felicity of SENČOFEN sentences which I constructed. This was nonetheless very helpful. However, the films were much more valuable in another respect. They prompted the use of SENČOFEN connected speech and conversation between the elders. One of the elders could not see the videos properly. This was obviously a disadvantage to my original aim; however, it provided a real context for the other elder to describe the videos in detail to the elder with the poor eyesight, often using his imagination to elaborate on the context and link the films together.

Traditionally, text collection has been used as a method of recording natural language use. It is essential for language documentation, and of great use to the community of speakers. The disadvantage of text collection is that it does not provide a reliable means of finding out about a specific issue in a language. It also provides a specific type of language use only. However, looking at SENČOFEN texts was important for this thesis. Aspect is recognised to have a key role in discourse (for some researchers, this is its main role, e.g. Hopper 1979) and in order to compare this role in SENČOTEN discourse with the function of aspect in other languages, it was necessary for me to look at long stretches of discourse. In addition, I wanted to test my hypothesis that the observed pattern of imperfective achievements being variably accepted in elicitation sessions was a result of low frequency. In the course of my fieldwork, I had hoped to record some texts or other examples of lengthy connected discourse such as personal narratives; however, the
speakers I worked with found this difficult for a number of complex reasons which I do not fully understand and which do not bear on the thesis. Luckily, Montler (1986) provides a fully glossed SENĆOŦEN text and there are also texts in other Northern Straits dialects in Efrat (1969) and Galloway (1990). In addition, the Saanich Native Heritage Society has published a book of SENĆOŦEN stories. I consulted all of these works in determining the use of aspect in discourse; with respect to frequency counts I used only the text in Montler (1986).

During elicitation sessions, which were four to five hours each, I left the recorder on the entire time. This was done with the permission and encouragement of the speakers, but they often forgot the recorder was on and began to speak naturally to each other, usually in a mix of SENĆOŦEN and English. Some of these conversations contain private material, and are not included in the thesis; others provided nice examples of real SENĆOŦEN language use which I have cited in several places.

The elicitation sessions from the first fieldtrip were fully transcribed, and I took detailed notes during the second and third fieldtrips. These transcriptions and notes were then entered into a Filemaker database I constructed specifically for this purpose. The database entries consist of sentences in the SENĆOŦEN orthography, the North American phonetic alphabet, an interlinear gloss, a free translation, and for some entries a field specifying what sort of evidence the sentence provides with regards to my research questions. Each entry also contains comments regarding speaker judgements and variation, context of utterance/acceptance, and relationship with other sentences in the database. At the time of writing, this database contains 3594 sentences. I have tried to eliminate duplicates, but there are likely some remaining due to re-checking of sentences in later elicitation sessions. In addition, some sentences are minimally different from each other. Nonetheless, this provides a wealth of SENĆOŦEN language data which has been crucial for this thesis and will continue to be used for linguistic and language revitalisation purposes. Examples from the database are cited in the thesis with their example number, except those which result from my Master’s fieldwork, which are cited “Fieldwork 2006”.

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1.3 Outline of thesis

The remainder of this thesis is organised as follows. Chapter 2 provides a review of literature on aspect, situation type, and the classification of verbs based on unaccusativity and derivational morphology. There is a massive literature on some of these topics (especially situation type), and I focus particularly on the research carried out on Salish languages within these areas, and on those theories which have informed the Salish research. Chapter 3 outlines common derivational and inflectional morphology of SENĆOTEN verbs, including some morphology which has not been described before. It goes more in depth into the three types of morphology which are particularly relevant to this thesis: aspect, aktionsart, and valence-changing morphology (particularly that which distinguishes ‘control’). The chapter argues that SENĆOTEN aspect is an inflectional morphosemantic feature consisting of the two values perfective and imperfective, and that its form is best treated in terms of inflectional classes. I further argue that aspect is orthogonal to the more derivational categories of aktionsart, control, and valence-change; and that these categories are both formally and semantically inside aspect. Chapter 4 compares approaches to predicate classification in Salish languages, particularly with respect to syntactic vs. semantic approaches. I support Montler’s (2003) arguments for a verb-adjective distinction, and compare it to the stage-level vs. individual-level distinction among predicates. I compare Gerdt’s (1988, 1991, 2006) approach to unaccusativity with Kiyota’s (2008) classification of situation types, and show that there is some evidence that unaccusativity can indeed be used to predict situation type. Lastly, I examine the impact of ‘control’ on situation type in SENĆOTEN, providing support for the claim that control and non-control transitives are distinguished in their culmination requirements (B. Carlson 1996, Watanabe 2003, Bar-el et al. 2005, Kiyota 2008, Jacobs fc) and extending that claim to other control and non-control pairs in SENĆOTEN. Throughout the chapter, I assess Kiyota’s (2008) situation type tests and classification, suggesting ways in which the classification could be refined. Chapter 5 looks at grammatical aspect, arguing explicitly for a perfective-imperfective distinction in SENĆOTEN which applies obligatorily to all verbs.
and only to verbs. I show that SENĆOTEN aspect has similar semantics to aspect in other languages, and that it patterns similarly with respect to predicate classes and is used with similar functions to aspect in other languages. The second half of the chapter provides evidence of a correlation between aspect and situation type in SENĆOTEN, showing that strongly telic verbs are rarer and less acceptable in the imperfective aspect than are other verbs; and that there is generally a higher proportion of telic perfectives and atelic imperfectives in SENĆOTEN discourse.
Chapter 2 Literature Review

SENCÓFEN aspect, situation type, and aktionsart are distinct categories which interact in predictable ways. This chapter outlines the previous literature on aspect, situation type, and the derivational categories of aktionsart and control in Salish languages, situating this literature in the general linguistic literature. The term *aspect* here is used exclusively to refer to grammatical aspect (also termed *viewpoint aspect*). In SENCÓFEN, I argue, aspect is an inflectional feature with two values: perfective and imperfective. I use the term *situation type* to refer to classes of predicates which are defined on the basis of such properties as telicity, punctuality, and stativity (these classes are sometimes called *eventualities, events, aktionsarten, or Vendler classes* and the semantic distinctions between them are sometimes said to be in the realm of *Aristotelian aspect, actionality, lexical aspect, or inner aspect*). Lastly, although it has often been used in more recent work as a synonym for situation type, I use the term *aktionsart* (plural *aktionsarten*) in its original sense; that is, to refer to derivational morphology (and the lexeme it has derived) which modifies the lexical semantics of a base by focussing on a sub-part of the situation (Binnick 1991: 458). In SENCÓFEN, this includes resultative and inchoative morphology, and influences a predicate’s situation type.

The chapter is organised along thematic grounds. In §2.1, I give a general overview of aspect, situation type, aktionsart, and the ways in which different scholars have analysed them. I will discuss issues internal to each of the levels: what kinds of distinctions are included in aspect; the universality of situation types; the contribution of derivational affixes to situation types. In §2.2, I discuss some issues in the study of argument structure and situation type; namely, proposals to equate unaccusativity and the Salish notion of agent ‘control’ with situation type distinctions. In §2.3, I look at correlations between the situation type property of telicity and the aspectual value of perfectivity, which are explored from several approaches: their similar semantics in describing a bounded situation, their converging patterns of acquisition, and their similar function in discourse.
2.1 Three distinct aspectual categories

The term *aspect* has generally been used to describe three different phenomena: grammatical aspect, situation type, and derivational morphology which affects temporal semantics. Scholars often talk about grammatical aspect and situation type as layers or components of aspect (e.g., Smith's (1997) two-component theory of aspect), and some have argued that the two are really manifestations of the same phenomenon at different levels of grammar (e.g., de Swart 1998, Borer 2005, Timberlake 2007). As mentioned above, I will only use *aspect* to refer to grammatical aspect, a grammatical feature with the values perfective and imperfective in SENCOTEN. There are several reasons why grammatical aspect and situation type are often discussed together. For one, early work on aspect in modern linguistics focussed on aspect in certain Slavic languages, especially Russian, which have prefixes that appear to encode both aspectual and situation type distinctions. Meanwhile, other early work on aspect drew parallels between derivational affixes (*aktionsarten*) in Germanic languages (particularly German) and the Slavic prefixes (Binnick 1991: 135-149). In addition, situation type and aspect often affect each other, such that certain situation types cannot take certain aspects, or certain aspects have different kinds of interpretations and uses with different situation types (e.g., English achievements often cannot appear in progressive aspect). Lastly, there are significant correlations between aspect and situation type, in terms of their semantics, distribution, and function (see §2.3).

This section is split into three parts, in order to keep the discussion clear. This reflects my approach, which maintains a distinction between inflectional morphology, semantic classes, and derivational morphology. I generally follow Binnick (1991):

It is now possible to distinguish the three kinds of “aspect”: Aristotelian aspect [situation type] is a classification of situations and expressions for them in terms of phasic structural types; the Aktionsarten constitute a classification of expressions for subsituations, phases, and subphases of situations; and true aspect concerns the temporal relationship of a situation to the reference frame against which it is set.” (Binnick 1991:458; boldface mine)
I adopt this approach mainly because it is necessary to distinguish these three categories in order to provide an accurate description of SENCOTEN aspect. Also, the majority of aspectologists distinguish aspect and situation type in some way. Hence, the first two sections are devoted to aspect (§2.1.1) and situation type (§2.1.2). Discussions of akionsart morphology are not prevalent in the literature on aspect. For SENCOTEN, however, it is useful to identify morphology which predictably affects both situation type assignment and grammatical aspect use. Previous work on aktionsarten in Salish languages is the focus of §2.1.3. Since the three categories overlap, each section will mention the other two categories in the course of discussion.

2.1.1 Aspect

Grammatical aspect can be defined in different ways, depending on the perspective of the author. First, it has been defined in descriptive terms which attempt to characterise the difference in meaning of perfective and imperfective clauses in different languages. Comrie (1976) argued that the traditional descriptive notions of perfective aspect as denoting punctuality or completion are inadequate. Instead, his definition, which is widely cited in informal definitions of aspect is that aspect expresses viewpoint (to use Smith’s (1997) term), where perfective and imperfective are “different ways of viewing the internal temporal constituency of the situation” (Comrie 1976: 2). This kind of informal description has been made more explicit (Smith 1997, Klein 1994) and formalised (Kratzer 1998).

Another way of defining perfective and imperfective is in terms of their role in discourse. This view is characterised in the functional account of Hopper (1979), who calls anything which systematically foregrounds a predicate in discourse perfective, and anything which backgrounds it imperfective. It has also been explored in depth in the framework of Discourse Representation Theory (Kamp & Rohrer 1983 and subsequent papers), which formalises the role of connected discourse in determining the use and interpretation of aspect.
The importance of the perfective-imperfective distinction in the literature is exemplified by Comrie's (1976) hierarchical model, where perfective and imperfective are basic categories, and other possible aspectual meanings are represented as sub-categories of imperfective (p. 25). A binary branching tree is given in which perfective and imperfective are the first basic opposition, and other distinctions between subtypes of imperfective are also shown.

Figure 2.1: Comrie's (1976) classification of aspectual oppositions

```
                      Perfective             Imperfective
                         /                   /
                Habitual              Continuous
                      /               /                
        Nonprogressive       Progressive
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(Comrie 1976: 25)

According to this structure, if a form is used in both habitual and continuous contexts, it is a general imperfective, if it is used in progressive and non-progressive (stative) contexts but not habitual contexts, it is a continuous marker, and if it is used only in progressive contexts, it is a progressive.

Another significant work in the area of the typology of aspect is that of Dahl (1985), who presents descriptions of basic universal categories of aspect, on the basis of the results of tense/aspect/mood surveys given to speakers of a sample of typologically diverse languages. Eighteen languages covering eleven areas of the world are represented. The study is based on grammatical aspect, and the perfective-imperfective opposition and progressive vs. non-progressive distinction are considered (Dahl 1985: 69). A detailed characterisation of the perfective is given:

A perfective will typically denote a single event, seen as an unanalysed whole, with a well-defined result or end-state, located in the past. More often than not, the event will be punctual, or at least, it will be seen as a single transition from one state to its opposite, the duration of which can be disregarded. (Dahl 1985: 78)

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5 In addition to perfect.
This characterisation, based on comparison of a varied selection of languages, refers to three components which are not generally considered part of aspect: tense, telicity and duration. However, Dahl’s (1985) observation is empirical, based on the use of perfectives in languages in his sample. It does not make a theoretical claim that perfectivity requires these properties, but refers to evidence of tendencies for perfective to co-occur with other kinds of temporal values, at least within the eighteen languages studied.

In Dahl’s work, progressive is not taken to be a subcategory of imperfective (as it is by Comrie (1976)), but is presented as a separate aspectual opposition, although Dahl (1985) notes that there are very few contexts where a distinction between the two can be shown (p. 93). Also, imperfectives are found to often develop diachronically from progressives (Bybee, Perkins & Pagliuca 1994: 141-142; Dahl and Velupillai 2008). The distinction between imperfectives and progressives is of some relevance to this thesis, because one of its goals is to support Kiyota’s (2008) claim that the SENCOTEN aspectual contrast is one of perfective vs. imperfective. In Dahl (1985), imperfectives and progressives are distinguished in the following ways: 1) Both progressive and non-progressive tend to be used for all tenses, while in the perfective-imperfective distinction, perfectives tend to be restricted in their temporal reference 2) Progressives are not usually used in habitual contexts, where imperfectives often are, and 3) Progressives are not usually used in stative contexts, where imperfectives often are (pp. 92-93). In addition, progressives are usually marked by periphrastic means (Dahl 1985: 93) and perfective/imperfective by morphological means (Dahl & Vilupillai 2008).

Bar-el (2005) argues that Skwxwú7mesh has both a progressive and imperfective coexisting in the language; imperfective is indicated by a clitic, while progressive is indicated by more obviously morphological means, i.e., reduplication. Her main reason for classifying the two in this way is that the clitic can introduce habitual meaning to the clause, while reduplication cannot. I will show in §5.1 that the SENCOTEN imperfective aspect is used to express situations occurring habitually. It is also used “in stative
contexts”, since it is used with the class of stage-level states. In this way, it is similar to imperfectives in other languages, such as French and Greek.

Smith (1997) also argues for the primacy of the perfective-imperfective contrast. She defines aspects in terms of endpoints, where perfective provides a view of the situation which includes both its initial and final endpoints (start and end) (p. 66). Imperfective provides a view which does not include the endpoints, either viewing an internal portion of the situation, or a portion following the situation’s endpoint (resultative) (p. 73-77). Smith also distinguishes a third category, neutral viewpoint, used to describe situations that are ambiguous between perfective and imperfective (p. 77). She provides evidence from Mandarin Chinese.

(2.1) Zhangsan xiuli yitai luyinji
Zhangsan repair one CL.tape.recorder
‘Zhangsan repaired/is repairing a tape recorder.’ (Smith 1997: 277)

According to Smith, this example can be interpreted to include both ends of the situation (a closed reading) or as viewing an internal part of the situation (an open reading). We will see in §2.1.2 that this account of the Mandarin facts is challenged by Koenig & Chief (2008), who argue that the ambiguity results from the lexical semantics of predicates like xiuli in (2.1).

Another approach to making the viewpoint metaphor more concrete is that of Klein (1994). Building on Reichenbach’s (1947) model of tense and perfect, which introduces the idea of reference time, Klein defines topic time (TT) as the time span which links the time of the utterance (UT) to the time of the situation (TSit). Topic time is “the time for which the particular utterance makes an assertion” (p. 37). Aspect then relates the time of the situation to the topic time. Perfective aspects place the topic time “at” the time of the situation, and imperfectives place the topic time within the time of the situation (p. 108). Klein assumes operators such as the following for English non-progressive and progressive.
Kratzer (1998: 17) provides formal definitions of perfective and imperfective which are “in the spirit of Klein”, which place the event time within the reference time for perfective and the reference time within the event time for imperfective. Bar-el (2005) adopts these definitions for the Skwxwú7mesh perfective and imperfective, while Kiyota (2008) modifies the definition of perfective so that only one atomic sub-part of the event time must be included in the reference time. In §5.1, I will discuss his arguments for this further, and observe that this definition fits with Klein’s initial proposal for perfectivity, which places the reference time AT the event time, where AT means that the reference time is partly included in the event time (Klein 1994: 99-100).

Typological descriptions of aspect which do not take perfective-imperfective as basic include that of Bybee et al. (1994) and Timberlake (2007). Bybee et al. (1994: 138-139) offer a critique of Comrie’s (1976) tree (above), showing that it is useful in some respects but not in others for their purposes of examining the diachronic development of tense, aspect, and modality. They argue that progressive is not subordinate to imperfective, but they do find grammaticalisation moving up the tree, such that progressives often evolve into imperfectives. They point out that certain points on the tree are not attested in their sample of languages, in particular continuous and non-progressive.

The five aspectual operations described by Timberlake (2007) are the progressive, iterative, perfect, perfective, and imperfective. He characterises these aspects as changing situation type. For example, “the progressive presents the world as an activity” (p. 287), and it indicates that the activity (or process) is ongoing at the reference time (or contextual occasion). The idea that progressives and imperfectives change telic situations into atelic
situations appears to be less common than the view that aspect and situation type are distinct; this issue is discussed in §2.3.

As seen in Timberlake’s (2007) list, one category which is often called an aspect is the perfect. This is a highly productive category in English, where it is orthogonal to both tense and aspect. English has past, present, and future versions of progressive and non-progressive perfects (I had eaten, I had been eating, I have eaten, I have been eating, I will have eaten, I will have been eating). Approaches vary in whether they include perfect as a tense or an aspect. Kiyota (2008: 96) has argued that there is a perfect in SENCOTEN. This is also orthogonal to tense and aspect. I show examples of the perfect with both aspects here. Note that the SENCOTEN perfect often denotes inception with atelic predicates (Kiyota 2008: 34).

(2.2) a. ɁEL ɁEN E SW?  
  kʷiʔ=ʔiʔan=ʔa=sxʷ  
  PRF=eat[PFV]=Q=2SBJ  
  ‘Are you starting to eat?’ (6.50)

b. ɁEL ɁLEN, LE  
  kʷʔiʔ=ʔ1<ʔ>ʔan=ʔa  
  PRF=eat[IPFV]=1PL.SBJ  
  ‘We’ll already be eating.’ (13.4a, 43.27)

Perfect is also indicated by different formal means from tense and aspect. While aspect is realised by different stem shapes, and tense is indicated by second position clitics, perfect is indicated by a pro-clitic (pre-predicate particle). Like tense, it does interact with aspect (and with situation type (Kiyota 2008: 34-36)), but is a distinct grammatical feature.

In most descriptive work on Salish languages, the term aspect is used to cover a number of different distinctions, most of which are probably derivational, and would likely fall under my aktionsarten. For example, Galloway (1993) includes continuative, resultative, stative, durative, characteristic, and inceptive under the heading of aspect; A. Mattina (1993) includes compleetive, habitual, perfect, imperfective, inceptive, and future. Many of the grammars are laid out according to form rather than semantics. Montler (1986), in his description of SENCOTEN morphology and phonology, includes imperfective aspect in a section on “radical morphological processes”; i.e., morphology
which is expressed non-concatenatively. This section includes plural and diminutive morphology in addition to aspect and akionsart.

However, work that has focussed on the semantics or function of aspect in Salish languages, as well as more recent descriptions (particularly Watanabe’s (2003) grammar of Sliammon) has identified a basic perfective-imperfective contrast. In most Salish languages, the imperfective is the more formally complex member of the pair (Kinkade 1996: 2). We will see in §3.2 that the SENĆOTEN imperfective stems exhibit several non-concatenative realisations (e.g., reduplication, infixation), while the perfective stems are plain.

Although the perfective-imperfective distinction is listed in all descriptive work on Northern Straits, several terms were used throughout the years for the distinction, the most common being actual (L. Thompson & M. Thompson 1969; Raffo 1971, 1972; L. Thompson, M. Thompson & Efrat 1974; Demers 1974; Montler 1986, 1989; Turner 2007). Efrat (1969) and Galloway (1990) use the term continuative for the same category, and Kiyota (2004) uses progressive. Hukari (1978), working on Halkomelem, uses the term imperfective in a study of the phonology. Hukari’s comment in a footnote suggests that actual was the more accepted term at the time in work on Central Salish: “The term imperfective may be peculiar to me. Read actual if you wish” (p. 147).

An example of the Northern Straits distinction is given by the SENĆOTEN example here, with the perfective in (a) and the imperfective in (b).

(2.3) a. čən-ət=ən
    bury-C.TR\PFV=1SG.SBJ
    ‘I buried it.’ (Montler 1986: 115)

b. čən-t=ən
    bury\IPFV-C.TR=1SG.SBJ
    ‘I’m burying it.’ (Montler 1986: 115)

Montler’s (1986) characterisation of the distinction is as follows:

The ‘actual’ [imperfective] aspect is opposed to ‘non-actual’ [perfective] and signals that the action, state, or other reference of the predicate is actually occurring at an indicated time. It is often translated into English in the form of ‘be...-ing’ progressive aspect and the English progressive is nearly always rendered in the ‘actual’ in
Saanich. However, a predicate in the ‘actual’ need not refer to a continuous or progressing action. (p. 111; bracketed material mine)

As Montler correctly notes, the SENĆOTEN imperfective aspect is not a progressive like the English progressive. Recent work has argued for a perfective-imperfective distinction (Turner 2007, Kiyota 2008). This was preceded by work on aspect in other Salish languages.

The earliest work specifically dealing with the semantics of aspect in a Central Salish language, as far as I am aware, is that of Kroeber (1988), who treats CV-reduplication as an indicator of imperfective in Comox, and concludes (p. 49) that predicates with no overt aspect morphology are perfective. He shows that only imperfectives are compatible with the adverb qeji ‘still’. This test is shown to be valid also for the perfective-imperfective distinction in Sliammon, the mainland dialect of Comox (Watanabe 2003: 408-410). While accepting that the reduplicated forms are imperfective, Watanabe simply states that the non-reduplicated forms are “presumably” perfective.

Outside Central Salish but within the Salish family, A. Mattina (1993) calls the form of a predicate with no overt aspect morphology completive; this seems to get at the same meaning as perfective. N. Mattina (1996) describes a perfective-imperfective-neutral aspectual distinction in Okanagan. She argues that sentences with no overt aspect have a phonologically null perfective. As with Kroeber (1988), her evidence for this comes from the fact that they are incompatible with the adverb puti? ‘continuously’ or ‘still’.

N. Mattina’s (1996) notion of the imperfective is different from the one used here. She classifies several different formatives with different semantics under the heading of imperfective: continuous, perfect continuous, propsective, and habitual/customary (pp. 59-62). It appears that all of these aspects are inflectional (they are all sentential aspects in Mattina’s terminology), since apparently every verb can appear in every one of these aspects (p. 191). Okanagan thus has a much larger inventory of inflectional aspects than SENĆOTEN.
Bar-el (2005) argues explicitly that the non-overtly coded aspect in Skwxwú7mesh is a “standard perfective” (pp. 224-226) and that there is both an overt progressive and an overt imperfective. She rejects the possibility that the plain forms of the verb may be neutral with respect to aspect, by arguing that approaches for neutral aspect for other languages do not apply to Skwxwú7mesh. The main reason for even considering this possibility is that Skwxwú7mesh, like most (perhaps all) Salish languages has a class of telic predicates which can have their culmination cancelled:

Skwxwú7mesh:

(2.4) na p’ayak-ant-as ta John ta snexwilh-s
RL heal-TR-3ERG DET John DET canoe-3POSS
welh haw k-as i huy-nexw-as
CONJ NEG IRR-3CNJ PART finish-TR-3ERG

’He fixed his canoe but he didn’t finish (fixing) it.’ (Bar-el 2005: 128)

In example (2.4), the verb p’ayakantas has no overt realisation of aspect, since it does not have the reduplication which indicates progressive. The clause also lacks the imperfective auxiliary wa7. Bar-el (2005) argues that clauses such as those in (2.4) are perfective.

Bar-el (2005) also argues that Skwxwú7mesh plain forms are not in a neutral aspect like that proposed by Smith (1997). One problem with a neutral account is that accomplishments like that in (2.4), while compatible with a non-culminated reading in the perfective aspect, still have a default reading of culmination (p. 217). Bar-el argues that culmination is not an entailment of these accomplishments, but it is an implicature.
Another reason not to apply a neutral aspect analysis to plain verbs is that the plain
Skxwew̓uí?mesh verbs, unlike the neutral forms cited by Smith (1997), are not ambiguous
between perfective and imperfective readings (p. 240). As I will show in chapter 5, these
arguments apply also to SENĆOŦEN. Another of Bar-el’s arguments against a neutral
analysis is that the culmination cancellation effect is only available with one class of
predicates in Skxwew̓uí?mesh and SENĆOŦEN. Koenig & Chief (2008) also take this line,
claiming that a neutral aspect account of non-culminating accomplishments in general
overpredicts that all predicates will show this effect in the “neutral” aspect.

Another recent work on aspect in a Salish language was Turner (2007), where I
suggested that the aspectual contrast in SENĆOŦEN is one of
perfective-imperfective-resultative, mostly on the basis of form. Since resultatives (which I
now consider an aktionsart) have the same stem shape as imperfectives, I argued that
resultatives were built from imperfectives, yielding a three-way aspect distinction. I did not
use the terms perfective and imperfective, as I did not yet have the evidence to decide if
the SENĆOŦEN imperfectives were indeed imperfectives or were progressives (now I do;
see §5.1). Given their formal similarity, I argued that the imperfective aspect and
resultative share the property of durativity. While it is true that imperfective is sensitive to
durativity (truly punctual predicates are not compatible with the imperfective (§5.2)) and
resultatives do express durative situations (since they are stative), the account is not very
successful since there are other durative predicates in the language, which are neither
imperfective nor resultative. Also, I will show in chapter 3 that imperfective and resultative
belong to different systems, where imperfective is an inflectional aspect, and resultative is a
derivational aktionsart.

Most recently, Kiyota (2008: 86-95) has provided a semantic account of aspect in
SENĆOŦEN, which looks at the use of different aspectual forms in clauses modified by
punctual phrases and proposes formal definitions for the aspects. Kiyota argues that there is a contrast between imperfective (overtly coded) and perfective (not overtly coded) aspects, but that perfective has a different semantics from that normally assumed. He gives a formal representation of imperfective based on that proposed for Skwxwú7mesh by Bar-el (2005), given by Kratzer (1998) (see above). Imperfectives, Kiyota (2008) argues, have a "standard semantics", where the reference time is included in the event time.

For perfectives, on the other hand, Kiyota argues that the whole event time is not necessarily included in the reference time. Instead, *only the time of one sub-event must be included in the reference time* (Kiyota 2008: 94-96). The determination of which sub-event is included in the reference time of the perfective depends on the situation type. For activities and inchoative states, "out-of-the-blue" sentences with no overt tense or aspect morphology are given an inceptive reading. This is taken as evidence that only the initial subevent is included in the perfective reading.

\[\text{work[PVF]}=\text{lSGSBJ OBL COMP=NMLZ yesterday} \]
\[\text{I started working yesterday.} \rceil /:\text{I worked yesterday.} \] (Kiyota 2008: 95)

For accomplishments and achievements, these out-of-the-blue sentences are given a completive reading. This is taken as evidence that either only the final subevent is included or the whole event is included.

In §5.1, I will add to Kiyota's arguments for a perfective-imperfective distinction in SENCOTEN, by providing further evidence that the SENCOTEN perfective can only be used as a perfective and thus is not neutral with respect to aspect, and also by showing that the imperfective is used with habitual readings and is thus not a progressive. I accept Kiyota's (2008) definitions of perfective and imperfective, but will question his characterisation of the SENCOTEN perfective as "non-standard". His reasons for proposing this definition rest on the behaviour of the perfective with respect to different situation types. These are discussed further in the next section, which provides an overview of the theoretical work on situation type which has influenced research on Salish languages.
2.1.2 Situation type

This section discusses the phenomenon of different semantic classes of predicate within languages. The literature on situation types is vast, and so I will highlight a few major works and then focus on literature specifically relevant to my study of SENCOTEN. Good overviews of the history of situation types in linguistic theory are found in Binnick (1991) and Filip (fc), and these have greatly aided my understanding of the development of the field.

Aristotle (Metaphysics) is credited with the first discussion of situation types in western philosophical thought. The idea of such classes was then explored in the work of Ryle (1949), Vendler (1957), and Kenny (1963). Vendler (1957) has been most influential in work on situation types within linguistics. Vendler proposes four classes, first distinguishing between activities, such as running and pushing a cart, and accomplishments, such as running a mile and drawing a circle, in that the latter "proceed towards a terminus" (p. 102-103). He then distinguishes between achievements, such as reaching the top and spotting the plane, and states, such as loving and believing, in that the latter take up more time (pp. 103-104). Vendler's (1957) classes are applied to the Salish language Comox by Kroeber (1988), in particular the class of states, which is motivated through various language internal tests of durativity and rate. These tests include compatibility with the adverbs $\bar{x}_u\bar{x}_w$ 'for a long time', qoji 'still', hahays 'slowly', and $\bar{x}_i$ 'fast'. States are compatible with the former two adverbs and not with the latter two.

The distinction between Vendler's (1957) activities and accomplishments is also discussed by Garey (1957) in work on French verbs. He introduces the terms atelic for activities and telic for accomplishments, the intuition being that telic verbs suggest movement towards a goal or telos. This distinction has been the focus of most of the subsequent work on situation type, and is also the source of parallels between situation type and aspect (discussed in §2.3). Developments in the notion of telicity are discussed throughout the following paragraphs, up to the present day when distinctions within the
class of telic verbs are increasingly being made in the literature. Note that, although Vendler (1957) did not consider achievements to be telic, they are often treated as telic in subsequent discussions of situation type.

Vendler (1957: 146) refers to his classes as “different species of verb”, but it is clear that the semantics of events are affected by things beyond the verb: direct objects, measure phrases, time adverbials, and subjects have all been shown to have an effect on the values associated with event classes. This is shown even in Vendler’s (1967) own examples—see the distinction between running and running a mile above. This issue was recognised in the 1970s in the work of Verkuyl (1972) and Dowty (1979).

Verkuyl (1972, 1989) shows that both subjects and direct objects affect the aspectual meaning of an English verb, and argues that aspect as a whole is a sentential level phenomenon and situation types are not determined lexically (Verkuyl 1989: 42). The distinction is made between terminative events, processes, and states, all of which refer to different types of sentences. Aspect is compositional in that certain aspectual features of the verb, direct object, and subject contribute to its assignment to one of the three classes. The verbal feature [+ADD TO] identifies a verb as eventive rather than stative, while the nominal feature [+SQA] identifies a noun as referring to a specified quantity (Verkuyl 1989: 81). Only when the verb and all of its direct arguments have [+] values will a sentence display the properties of a terminative event; i.e., be telic (p. 79).

Verkuyl’s account makes explicit the contribution of the mass-count distinction in nominal expressions to situation type classification. Further to that, others have argued that the telicity distinction of the verbal domain is parallel to the mass/count distinction in the nominal domain (e.g., Taylor (1977), and Mourelatos (1981)). Bach (1981, 1986) proposed an extension of a formal model of the mass-count distinction (Link 1983) to distinctions among verbs. This was developed further by Krifka (1989, 1998), who distinguishes between cumulative and quantized predicates in the nominal and verbal domain. In Krifka’s original definition, a predicate is cumulative if when it applies to two entities, it also applies to the sum of the two entities. Cumulative nouns include beer and books;
cumulative VPs are atelic VPs like *walk*. A predicate is quantized if when it applies to two entities, it does not apply to the sum of the two entities. Quantized nouns include *a book, five books, and a glass of beer*; quantized VP are telic VPs like *solve the puzzle* (Krifka 1989: 75).

Verkuyl (1989) also argues against Vendler’s four-way distinction. He argues that achievements and accomplishments are not distinguished linguistically, but rather on real-world information: one predicate can be used to describe both instantaneous and non-instantaneous events, e.g., *draw a circle* is one of Vendler’s examples of an accomplishment, but with a computer it is possible to draw a circle in an instant (Verkuyl 1989: 58). Verkuyl therefore proposes conflating the classes of achievements and accomplishments and distinguishing only three situation types, which are classified according to two parameters only (telicity and stativity).

The contribution of nominals, particularly direct objects, to the verb has also been captured in the Minimalist approach of Kratzer (2004). According to this account, telicity is relevant to syntax. Kratzer argues that this is the case in Finnish, where all telic predicates have objects in the accusative case and atelic predicates have objects in the partitive case (p. 403), and in German, where she argues that the telicity of accomplishment verbs is syntactically derived. Telicity, a verbal feature, is added as a means to check the nominal feature of accusative. She also acknowledges the similarity of atelicity and imperfectivity, noting, however, that imperfectivity differs from atelicity in that imperfectivity implies culmination in some possible world (not necessarily the real world). She claims that in Russian something very similar to atelicity is added by using the overt imperfective suffix with verbs carrying the telic ‘perfective’ prefix (Kratzer 2004: 405). Lastly, she argues that something similar to atelicity is contributed in German by a non-overt imperfective operator (pp. 406-408).

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6 This applies to the overt suffix, and not the underived ‘imperfectives’ of Russian. The underived ‘imperfectives’ are treated as atelic, but Kratzer (2004: 419, fn 21) notes, citing Hana Filip, that the link between telicity and prefixes in Russian is not as straightforwarded as presented in the paper.
Much of the formal literature up to the present day assumes some variation on a mereological (quantization-based) analysis of the telicity distinction, with recent theoretical work making use of scales representing gradable changes to explain distinctions between and within the classes of telic predicates (Hay, Kennedy & Levin 1999; Beavers 2008; Filip 2008; Kennedy & Levin 2008; Rappaport-Hovav 2008). This has not yet been taken up in work on Salish languages.

Besides Verkuyl (1972), the other major influential work of the 1970s was that of Dowty (1979), who provides a decompositional analysis of the classes, making use of the model-theoretic framework of formal semantics. He follows Verkuyl in discussing the contribution of elements outside the verb in distinguishing Vendler’s (1957) classes. However, he stresses that his account is a semantic account and not a syntactic account.

In Dowty’s model (which he calls an aspectual calculus), the event semantics of all predicates can be defined in terms of one type of simple predicate and a small set of operators. All classes are built on a simple stative predicate; thus Vendler’s states are the simplest predicate class. Activities contain the operator DO (which introduces agentivity but not necessarily volition), achievements contain BECOME (which introduces change-of-state). Accomplishments are complex predicates containing the operator CAUSE (which introduces causation) plus one or more of the other operators (p. 124). Aspect in Dowty’s (1979) model is decompositional; activities and achievements are built on states, and accomplishments are built on achievements and/or activities. In addition, extensions of the situation types are recognised, e.g., achievements as “inchoation of activity” (BECOME operating on DO) and “stative causatives” where one state causes another (p. 124). Thus, although Dowty (1979) discusses the four Vendlerian classes, he does not limit the number of predicate classes to only four, but instead provides tools which can define the four classes and make a number of more fine-grained classifications as well.

Dowty was also influential in recognising the Imperfective Paradox, a crucial difference between telic and atelic events with respect to the progressive. The observation is that, in English, the past progressive of an accomplishment does not entail its past
non-progressive (Dowty 1977: 46). For example, *John was drawing a circle* does not entail *John drew a circle*, but the progressive activity *John was pushing a cart* does entail its non-progressive *John pushed a cart* (p. 45).

One extension of Dowty’s (1979) model which is relevant to the Salish literature is that of Rothstein (2004), who argues that Dowty’s logical formulas should be used to characterise verbs, as well as VPs (pp. 33-35). For Rothstein, verbs are lexically specified for aspect (i.e., situation type), but their aspectual properties can be *shifted* by grammatical operations, so that a VP may behave aspectually dissimilar from the verb which heads it, and in fact share aspectual properties with verbs of different situation types (p. 34). Aspect shift or coercion (i.e., situation type shift), whereby inflectional morphology and elements outside the verb can affect situation type, is argued for in a number of works (Moens & Steedman 1988, de Swart 1998, Zucchi 1998, Bohnemeyer & Swift 2004).

Rothstein’s approach and the idea of aspect shift have been used in work on St’át’imcets and Skwxwú7mesh (Matthewson 2004a; Bar-el, H. Davis & Matthewson 2005). These papers argue that accomplishments are derived from achievements through the addition of a control transitive suffix to an unaccusative verb. Kiyota (2008) also bases his formal definitions of SENCOTEN situation types on Rothstein’s (2004) definitions. These are discussed in depth below.

Another approach influential to previous work on Salish aspect is the decompositional approach of Pustejovsky (1991, 1995), for whom both states and activities are basic. States refer to a single event and processes (activities) refer to multiple identical events (1991: 56). In addition, transitions can be made from one situation type to another, so an achievement such as *The door closed* would be a transition from state to state (p. 58). This approach is applied to N. Mattina’s (1996) categorisation of Okanagan (Interior Salish) event classes (or *base aspect*), Burton & H. Davis’s (1996) analysis of the St’át’imcets (Interior Salish) stative, and in H. Davis & Demirdache’s (2000: 124) proposal that all St’át’imcets events are underlingly causative (see §2.1.3).
N. Mattina (1996) proposes that all base-level lexemes (lexemes to which productive derivational morphology and inflectional morphology have not yet been added) can be grouped into the classes of entities, states, processes, and transitions. Entities are nouns (since Mattina argues explicitly for a noun-verb distinction in Okanagan), and the rest are verbs. Mattina's approach is considered in some more detail in §2.1.3, in the discussion of aktionsart.

Another approach partially adopted in work on Salish languages is that of Smith (1997), in her model of the interaction of situation type (aktionsart) and viewpoint (grammatical aspect) touched on in §2.1. The classes of states, activities, achievements, accomplishments, and semelfactives are characterised in two ways. First, as discussed in §2.1.1, they are the result of a cross-classification of the features of telicity, durativity, and stativity, where states are [+stative, +durative, -telic], activities are [-stative, +durative, -telic], accomplishments are [-stative, +durative, +telic], achievements are [-stative, -durative, +telic], and semelfactives are [-stative, -durative, -telic] (Smith 1991: 20). Bar-el (2006: 28) criticises the featural account based on the fact that it cannot rule out classes of [+stative, -durative] and [+stative, +telic], which are not included in the model. Smith also characterises the situation types structurally, by providing visual representations of the features and endpoints of each type.

Figure 2.3: Smith's (1997) Temporal Schemata

<table>
<thead>
<tr>
<th>States</th>
<th>(I) ——— (F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activities</td>
<td>I.....F°arb</td>
</tr>
<tr>
<td>Accomplishments</td>
<td>I.....F°nat</td>
</tr>
<tr>
<td>Achievements</td>
<td>...E°R...</td>
</tr>
<tr>
<td>Semelfactives</td>
<td>E</td>
</tr>
</tbody>
</table>

(Smith 1997: 23-32)

The solid versus dotted line captures stative vs. dynamic, the absence of initial (I) and final (F) points indicates punctuality, and telicity is simply captured by the intuitive notion of arbitrary (atelic) vs. natural (telic) final points in activities and accomplishments, respectively. In the literature on Salish languages, Bar-el (2005) applies Smith's (1997) idea of initial and final points, though not her featural account, to Skwxwú7mesh.
One of the recent trends in work on situation type is the exploration of situation type distinctions in languages outside Indo-European. These studies have shown that Vendler’s (1957) four classes are not universally adequate for capturing situation type distinctions (Tatevosov 2002, Wilhelm 2007, Bar-el 2005). This work has first noticed that some of the tests for situation type do not translate between languages. Particularly problematic is the for an hour/in an hour test, used to distinguish between activities and accomplishments. This has prompted the development of other tests aimed to get at the telicity distinction. In work on indigenous languages of Canada, Wilhelm (2003, published as 2007) and Bar-el (2005) have developed language-specific tests for telicity and other relevant distinctions for Dene Sulîné (Chipewyan, Athabaskan) and Skwxwú7mesh. Some of Bar-el’s tests were extended to SENCOTEN by Kiyota (2008). Since some of these are used in chapter 4 to assess the contribution of aktionsart and some valence-changing morphology to situation type, I will outline them here.

Kiyota (2008) argues for five situation types in SENCOTEN: **homogeneous states, inchoative states, activities, achievements, and (non-culminating) accomplishments.** These are argued for on the basis of several language-internal tests: The first is the interpretation of out-of-the-blue sentences (in neutral aspect), which distinguishes states and activities (ateletic) from achievements and accomplishments (telic). States (2.7) and activities (2.8) only have a present tense interpretation, and a past tense marker is apparently required for a past interpretation of activities at least (compare 2.9 with 2.10).^  

(2.7) **kʷamkʷom** ti?o Jack  
strong PROX.DEM Jack  
‘Jack is strong.’ (Kiyota 2008: 27)  

(2.8) **hilskʷ** to Jack  
get.happy GNRL.DET Jack  
‘Jack is happy.’ (Kiyota 2008: 28)  

(2.9) **kʷong-at=son kʷθω o no ten**  
help-C.TR[PFV]=l SG.SBJ REM.FEM.DET 1SG.POSS mother  
‘I am helping my mother’/*I helped my mother.’ (Kiyota 2008: 32)  

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^ However, I have not found this restriction in my fieldwork with different speakers of the language. I have instead found that it is a tendency.
(2.10) k*onเณ-เt=sเん=ลo?
k*טכט no-ten
help[PFV]-C.TR=1SG.SBJ=PST REM.FEM.DET 1SG.POSS-mother
'I helped my mother.' (Kiyota 2008: 32)

On the other hand, accomplishments and achievements only have past tense interpretation.

Kiyota’s (2008) consultant rejected present tense interpretations of the following (p. 29).

(2.11) งย*ay ตเo Jack
die[PFV] GNRL.DET Jack
'Jack died.' (Kiyota 2008: 30)

(2.12) ลo?เs=sเณ=k*เs?
GNRL.AUX=1SG.SBJ=PST.DIR.EV
get.washed[PFV]-C.TR GNRL.DET 1SGPOSS floor
'I cleaned my floor.' (Kiyota 2008: 31)

The next test also relies on interpretation into English, this time with the particle [k*ט], which Kiyota (2008) argues independently is a perfect. Inceptive readings are found with inchoative states and activities (2.13-2.14); completion (perfect of result/recent past) readings are found with accomplishments and achievements (2.15-2.16).

(2.13) k*ט=טטเณik*ט to Jack
PRF=get.tired[PFV] GNRL.DET Jack
'Jack has begun to feel tired.' (Kiyota 2008: 34)

(2.14) ลo?เs=ט PRF=laugh[PFV]
GNRL.AUX=PRS.DIR.EV
k*ט=เณ-เณ
'He has begun to laugh.' (Kiyota 2008: 34)

(2.15) k*ט=เณเณ=sเณ
PRF=arrive[PFV]=1SG.SBJ
'I have (already) arrived/I am here.' (Kiyota 2008: 35)

(2.16) ลo?เs=sเณ=k*เส?
GNRL.AUX=1SG.SBJ=PST.DIR.EV
k*ט=ลเo-เt
PRF=get.fixed-C.TR[PFV] GNRL.DET 1SGPOSS table
'I have already fixed my table.' (Kiyota 2008: 35)

The third test is the availability of the resultative (called stative by Kiyota (2008)), which distinguishes achievements from all others. The resultative is indicated by a prefix s- and a stem shape identical to the imperfective. Kiyota (2008) follows the traditional account of Montler (1986) in treating the prefix as a distinct stative prefix which then co-
occurs with resultative stem shapes; however Turner (2007) argues that the stative prefix is always and only used in resultatives (see §3.4). Achievements freely take s-.

(2.17) \text{\text{\textipa{s-x*ayat ti?o Jack}}} \\
\text{\textipa{RES-wake.up\ RES PROX.DEM Jack}} \\
'Jack is awake.' (Kiyota 2008: 37)

(2.18) \text{\textipa{la?=ta\ k'^i=s-le~la?\ to\ latem}} \\
\text{\textipa{GNRL.AUX=PRS.DIR.EV PRF=RES\-RES~get.fixed GNRL.DET table}} \\
'The table has been fixed.' (Kiyota 2008: 37)

Kiyota (2008) claims that none of the other situation types can take the prefix s-. Although Kiyota (2008) does not test accomplishments specifically, I have tested some control transitives with respect to their ability to take s- (or resultative) and found that they do not. Since control transitives are argued to constitute the class of accomplishments, this test does comply with Kiyota's claims that accomplishments do not take s-.

(2.19) a. \text{\textipa{TPEXT\ Àpax-t\ scatter-C.TR[PFV]}} \\
'scatter it.' (Turner 2007: 58)

b *\text{\textipa{s-Xapx-t\ RES-scatter\RES-C.TR}} \\
attempted translation: 'It's scattered.' (Turner 2007: 58)

However, it is unclear in Kiyota's (2008) work if it is because these verbs are accomplishments or if it is because they are transitive that they cannot occur with the resultative. No examples of the resultative with non-control transitive forms have been found either, although non-control transitives are not accomplishments (they are achievements).

Kiyota (2008) also provides an 'almost' test, which distinguishes between achievements and accomplishments. With accomplishments, ōlul ‘almost’ produces ambiguity; either it means the event started but didn’t finish or the event didn’t happen at all. With achievements, ōlul is not ambiguous, and must mean the event didn’t happen.

(2.20) \text{\textipa{ōlul=sən\ ?i?=le-t\ tə\ latem}} \\
\text{\textipa{almost=1SG.SBJ COM=get.fixed[PFV]-C.TR GNRL.DET table}} \\
'I almost fixed the table.' (Kiyota 2008: 63)

Reading: \(\checkmark\) I didn’t start fixing the table/\(\checkmark\) I started fixing the table, but didn’t finish.
In §4.3, I show evidence that the ‘almost’ test targets a different distinction from Kiyota’s (2008) accomplishment-achievement tests.

Notice that Kiyota (2008) distinguishes between two types of state in SENCOTEN: one which has no internal structure and denotes a more permanent quality of a referent, and one with a beginning and an end which denotes temporary states of affairs. This distinction is one of individual-level versus stage-level. Following observations by Milsark (1974) that English adjectives fall into two classes based on various syntactic properties, G. Carlson (1980: 66-79, 168) proposed that English predicates can be distinguished into those which normally predicate over individuals and those which predicate over stages of an individual. A stage is “roughly, a spatially and temporally bounded manifestation of something”. The distinction between individual-level and stage-level predicates, particularly in the realm of states, has come to be generally recognised in the literature on event structure, but individual-level and stage-level states are not generally treated as two different situation types.

Following work on Chinese states (Chang 2003), Kiyota (2008) incorporates the individual-level/stage-level distinction into his SENČOTEN situation type classification. Previous work on Salish languages had already recognised differences between individual-level and stage-level predicates generally (H. Davis, Lai & Matthewson 1997; H. Davis 2002). Kiyota (2008) calls these two types of states homogeneous and inchoative states, but I will use the more standard terminology. As discussed above, inchoative states do not appear to behave differently from (stage-level) states in other languages with a perfective-imperfective distinction.

Montler (2003) also discusses individual-level states in Klallam and Northern Straits, though he does not call them individual-level. He argues that they are a distinct lexical category, namely that of adjectives. His argument is based on the observation that
only individual-level states must agree in plurality with overtly plural nouns in certain constructions, including DPs. These arguments will be presented in detail in §4.1. I will adopt the verb-adjective distinction in this thesis. More evidence is required to see if the class of adjectives is indeed the same as the class of individual-level states.

Kiyota (2008) lists the following distinctions between inchoative states and homogeneous states. They are distinguished by a punctual clause test, which yields an inceptive reading for perfective inchoative states and is infelicitous for homogeneous states. The sentence in (2.22) contains an inchoative state. Kiyota shows that this is restricted in terms of its interpretation (hence the asterisk beside the second attempted interpretation) but it is grammatical. (2.23), on the other hand, which contains a homogeneous state, is not grammatical.

(2.22) *tečəq to Jack get.angry[PFV] GNRL.DET Jack

kʷ-s kʷ'=təl-nəxʷ'-s to sqʷ'əl=qʷəl
COMP-NMLZ PRF=learn-NC.TR[PFV]-3POSS GNRL.DET news
‘Jack was mad [angry] when he heard the news.’

*I Jack was already mad when he heard the news. (Kiyota 2008: 42)

(2.23) #kʷməmʷəm to Jack kʷ-s strong GNRL.DET Jack COMP-NMLZ

kʷ'=l=kʷ'-ən-əq-s to stəpəxʷ'-s
PRF=take-C.TR[PFV]-PASS-3POSS GNRL.DET medicine-3POSS
‘Jack felt strong when he took the medicine. (Kiyota 2008: 43)

Kiyota (2008) shows it is possible to derive an inchoative reading by adding the inchoative suffix or the prefix txʷ- to some homogenous states and to some derived states (resultatives). Examples with the prefix are given here:

(2.24) txʷa-sexʷəxʷ tə Jack INCH-lazy GNRL.DET Jack

‘Jack got lazy.’ (Kiyota 2008: 45)

(2.25) txʷo-s-xəfeqəə sqə tiʔə kʷəčil
INCH-RES-get.hurt\RES 1SG.SBJ OBL PROX.DEM morning
‘I got sick this morning.’ (Kiyota 2008: 45)

Although the term inchoative state is unique to Salish literature (coined by Bar-el (2003)), verbs with resultative state meaning in the imperfective are also found in other languages.
Smith (1997) shows that Mandarin verbs which express statives in imperfective and neutral contexts, can be used to express inchoatives with perfective -le.

Mandarin:

(2.26) Wo bing-le
I sick-PFV
'I got sick.' (Smith 1997, p. 265)

This situation is different from that of inchoative states in that the Mandarin perfective is overtly coded, while in the Salish languages with inchoative states only imperfective is overtly coded. Thus, Smith is able to say that Mandarin verbs like bing are basically stative, and that their situation type is shifted with the addition of the perfective -le. For Salish languages, this claim is harder to make, because it is the formally complex form with the stative readings.

In French and Italian the perfective/imperfective distinction can reflect inchoative/stative readings. In French, the passé composé of verbs like être and avoir reportedly describes inchoative situations in their default readings (2.27a) while the imparfait of the same verbs describes a stative situation (2.27b) (Smith 1997).

French:

(2.27) a. Marie a été heureuse à la vue de son fils.
Marie was_PSt happy at the sight of her son. (Smith 1997: 195)

b. La mer était calme.
The sea was_Impf calm. (Smith 1997: 197)

The same is true of preferred readings of Italian simple past and imperfective, according to Bertinetto (2001).

Italian:

(2.28) a. Leo impugnò la pistola; tutt’attorno si fece un subito silenzio
‘Leo got hold(-simple past) of his gun; all around a sudden silence arose.’

b. Quando Lia entrò, Leo impugnava la pistola
‘When Lia came in, Leo was holding(-imperfect) his gun’. (Bertinetto 2001: 13)

In addition, Green (2010) shows that Kwak’wala (Wakashan) states have an inchoative reading in the perfective. In Tatevosov’s (2002) typology of situation types (actionality), the four languages he considers (Mari, Tatar, Bagwalal, and Russian) all contain at least one class of states with an inchoative reading in the perfective and a stative reading in the imperfective. Even for English, Vendler (1957: 153) discusses the inchoative
interpretations that certain states can sometimes get in the non-progressive: "And then suddenly I knew!", although he treats this use of the verb know as an achievement, related to the state but not identical to it. In addition, there is the class of positional states in English, some of which have been observed to carry inchoative meaning in the non-progressive and stative meaning in the progressive (Shirai 1998, Kranich 2008). We see, then, that Salish languages are not unique in their use of the perfective-imperfective category to encode an inchoative-stative distinction. What may be unique to Salish languages is the particular class of statives which have this property. They appear to include emotional states and positional states, though the two slightly differ from each other (see §4.2).

Research on Salish languages and several other languages has brought to light the phenomenon of non-culminating accomplishments. These are accomplishment-like predicates which involve a change of state but are compatible with a cancellation of their completion, or with a statement of their continuation (such that they are "not finished yet"). Crucially, this ability to express a "non-culminating" situation is found in both aspects. A Mandarin example is given here:

\[(2.29) \text{Wo zuotian xie-le gei Zhangsan de-xin} \]
\[1 \text{ yesterday write-PFV to Zhangsan DE-letter} \]
\[\text{keshi mei xie-wan} \]
\[\text{but not write-finish} \]
\[\text{‘I wrote a letter to Zhangsan yesterday, but I didn’t finish it.’ (Smith 1997: 265)} \]

Matthewson (2004a), Bar-el et al. (2005), Bar-el (2005), and Kiyota (2008) have argued for non-culminating accomplishments in Salish. Accomplishments and achievements in several Salish languages have been argued to differ in that achievements entail culmination, and accomplishments merely implicate culmination (Bar-el et al. 2005: 3, 6). Evidence for this lies in that fact that accomplishments can have their culmination cancelled. A SENCOTEN example is below:
When they are not cancelled, however, accomplishments still have a culmination implicature. Achievements can never be cancelled, and thus entail culmination.

Bar-el (2005), Bar-el et al. (2005), and Kiyota (2008) term the distinction between predicates which entail culmination and those which implicate culmination as a distinction between *achievements* and *accomplishments*. However, it is probably more accurate to describe these as two different types of accomplishment, since the class of culmination-entailing predicates as a whole are not all instantaneous.

The analysis given by Matthewson (2004), Bar-el et al. (2005), and Bar-el (2005) is that non-culminating accomplishments do not entail culmination, but they implicate it. In Bar-el et al.’s analysis, the situation denoted by the accomplishment must culminate in all *inertia worlds*; i.e., worlds “which are exactly like the given world up to the time in question and in which the future course of events after this time develops in ways most compatible with the past course of events” (Dowty 1979: 148, cited in Bar-el 2005: 131).

Tatevosov (2008) discusses non-culminating accomplishments in Karachay-Balkar (Turkic), and shows that they come in two types: one which allows only a *failed attempt* reading and one which allows, in addition to a failed attempt reading, also a *partial success* reading. He bases his analysis on Bar-el et al.’s (2006) and Koenig & Muansuwan’s (2001) *inertia worlds* analysis of non-culminating accomplishments and Ramchand’s (2008) model of *First Phase Syntax*, which involves three subeventual stages for accomplishment verbs. Tatevosov suggests that two of these stages, v (associated with

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8 This is transcribed with plain (non-ejective) [q"] in Kiyota (2008: 58), but elsewhere is listed with [q’], and is always ejective in my fieldwork. I assume the [q"] is simply a typographical error.
agent) and V (associated with process) can both come in *intertia* varieties. Languages differ in whether they have these inertia varieties available.

Koenig & Chief (2008), in the same volume, propose the *Scalar Hypothesis* for non-culminating accomplishments. They use the term *incompleteness effect* to describe the phenomenon that some accomplishment verbs in some languages do not necessarily denote events which culminate. The first half of their paper is devoted to arguing against analyses which locate the cause of the incompleteness effect in either object NPs or in grammatical aspect.

Soh & Kuo (2005) had argued that non-culminating accomplishments in Mandarin were possible because Mandarin NPs are different from NPs in a language like English: according to their analysis, Mandarin NPs denote a *non-necessarily proper part* of the denotation of the English-type NP. This is also reflected in the fact that Mandarin does not have a mass/count distinction. Koenig & Chief (2008: 247) give attested counter-examples to Soh & Kuo’s (2005) grammaticality judgements, showing that non-culmination can occur with NPs introduced by numerals.

Smith (1997) claims that the Mandarin perfective *le* is responsible for non-culmination, suggesting that it denotes only termination and not culmination for all events. Koenig & Chief (2008: 248) argue that this analysis cannot be correct, since it predicts that all events can receive a non-culminating interpretation. They show that this is not possible, and non-culmination is only compatible with a subset of events in each of the languages they consider.

The second half of Koenig & Chief’s (2008) article contains a proposed analysis of non-culmination. They suggest that the non-culminating verbs are those which describe “induced normative gradable changes”; i.e., changes which can be measured on a closed scale (a scale with a maximum degree of change beyond which no further change is possible). Then, in languages with non-culminating verbs, these verbs only entail that a change greater than zero and less than or equal to the maximum amount of change took
place. In a language without non-culmination, the same types of verbs entail that the maximum amount of change took place.

Koenig & Chief's (2008) proposal has the advantage over Tatevosov's (2008) in describing Mandarin, in that it involves degrees of change, thus accounting for the fact that with non-culminating accomplishments in Mandarin, at least, some change must have occurred. However, it seems that in Karachay-Balkar this is not the case: both types of non-culminating accomplishment allow the failed attempt reading, where no change takes place at all. Tatevosov's (2008) proposal is also more extensive than Koenig & Chief's (2008) in that he considers the behaviour of non-culminating accomplishments in both aspects, perfective and imperfective.

Both of these analyses argue effectively that the source of non-culmination is in the lexical property of certain classes of verbs, and not in grammatical aspect. The SENCOTEN facts support this view, but provide an interesting case. In SENCOTEN, in contrast with all of the languages considered by Tatevosov and Koenig & Chief, non-culmination is made possible by the presence of derivational morphology, i.e., the control transitive. If Kiyota (2008) is correct that all control transitives have this property, then this provides evidence that the control and limited control transitive suffixes are derivational, operating at the lexical level, and affecting the verb's lexical semantics. Control in Salish languages is discussed further in §2.2.2. The next section focusses on other derivational morphology which can affect situation type distinctions.

2.1.3 Aktionsart

As discussed above, I am using the term aktionsart in the traditional sense to refer to derivational morphology, and not in the more recent sense as a synonym of situation type. Filip (fc) cites Agrell (1908) as coining the term aktionsart to refer to classes of verbs differentiated on the basis of overt derivational morphology. These "cover the lexicalization of various 'manners of action' (e.g., terminative, resultative, delimitative,
perdurative, iterative semelfactive, attenuative, augmentative)” (Filip fc: 3). Binnick (1991: 458) defines aktionsart as pertaining to phases of situations.

I find the notion of aktionsart useful in discussion of Salish languages, since the languages all contain derivational morphology which is “aspectual” in nature but which is not grammatical aspect. Kinkade & Kiyota (2004) compare derivational affixes throughout the Salish family that are used to encode state and change of state. In SENCOTEN, there is both resultative and inchoative morphology, which encodes the resulting state of a situation or the inception of a situation, respectively. In §3.4, I consider the resultatives and two inchoatives in a section on aktionsart. I also list persistent morphology, which seems to encode or focus on the middle portion of a situation (e.g., deriving a word meaning ‘watch’ from a verb meaning ‘look at’).

N. Mattina (1996) provides a detailed study of aktionsart in Okanagan, distinguishing it from both aspect (perfective-imperfective-neutral) and situation type (state-process-transition). She introduces the terms base aspect for situation type at the level of the verb base (not including aktionsart), stem aspect for aktionsart, and sentential aspect for aspect. Her base-level classes of state, process, and transition are distinguished on the basis of their ability to appear with certain aktionsart. Among the suffixes that Mattina (1996: 69) includes in the stem aspects are the transitivising suffixes (closed transitional, open transitional), reflexive, middle, reciprocal, causative, continuative, limited control, desiderative, and stative. In her model, again based on Pustejovsky’s (1991) model of event structure, the stem aspects do not affect the event structure of the base lexeme, but they do derive lexemes with a changed semantic lexical conceptual structure. This means that the derived lexemes’ lexical semantics differs from that of their bases in a way which is predictable based on the suffix used in the derivation.

Burton & H. Davis (1996) and Bar-el (2003) also provide analyses of derivational morphology in Salish languages within a Pustejovskyan framework, focussing on the stative prefix in St’át’ímctcsts and Skwxwú7mesh, respectively. This stative prefix is cognate with the SENCOTEN resultative, and appears to have the same function, deriving a
predicate expressing the resulting state of a telic situation. They argue that the stative
prefix removes the initial subevent of a transition predicate, leaving only the final subevent,
which is a state.

In work on Stát’imcets by H. Davis (1997), Demirdache (1997), and H. Davis &
Demirdache (2000), different verb stems (equivalent to N. Mattina’s stem aspects) place
the focus onto different parts of the event structure, which is identical for all verbs.
H. Davis & Demirdache argue that all verbs are underlyingly causative, with a complex
event structure that includes a process and a transition (i.e., cause and change of state).
Unaccusatives then place the focus on the transition, unergatives place it on the process,
and transitives place the focus on the whole event. Demirdache (1997) provides an analysis
of Stát’imcets ‘out of control’ morphology in this framework. ‘Out of control’ morphology
(not found in SENĆOŦEN) applies to different predicate types with different
interpretations; these are similar to those of the SENĆOŦEN non-control forms, including
‘accidental’, ‘managed to’, ‘suddenly’, and ‘able to’ readings (see §2.2.2). Demirdache
argues that ‘out of control’ morphology suppresses the initial subevent of the event to
which it applies.

The idea of morphology deriving event-structure differences is brought up again in
Bar-el et al. (2005), in which it is argued that Stát’imcets directive transitives and
Skwxwú7mesh control transitives derive accomplishments from underlying achievements.
This will be discussed further in §2.2, both in the section on unaccusativity and in the
section on control.

In this thesis, I will be following N. Mattina’s (1996) approach to morphological
divisions to a certain extent, maintaining a distinction between aktionsarten, which affect
the lexical semantics of a verb base, and aspect, which is inflectional and does not. There
are some ways in which I diverge from her approach, however. In chapters 3 and 4 I will
distinguish among the valence-changing affixes those which affect situation type and are
relevant to grammatical aspect formation (both formally and semantically) and those which
do not. Thus, I do not group reflexive morphology with control morphology; control morphology affects situation type, while reflexive morphology does not.

Another way in which I diverge from Mattina’s (1996) approach is as follows. Mattina treats aspect as being built up from the base (the root and unproductive derivational morphology), which defines event structure, to the stem, where aktionsart applies. This does not allow aktionsart to contribute to situation type itself, and does not allow anything outside the verb to contribute. Kiyota (2008) treats derivational morphology as deriving a new verb with a new situation type classification. In this thesis, I will adopt Kiyota’s approach in this respect. Some verbs containing derivational morphology pattern the same way with respect to situation type as certain verbs containing no morphology. For example, verbs containing the non-control transitive suffix behave similarly to unaccusatives (Kiyota 2008; §4.2).

An issue which has not been properly addressed in the literature on Salish aspect is to what extent factors outside the verb affect situation type properties. One thing I have observed is that a verb describing a punctual situation with a singular subject is unable to take imperfective aspect, but is able to take imperfective when the subject has a plural referent, in particular this is shown for the verb tečəl ‘arrive’ (Turner 2007: 68). This was taken to indicate the association of the imperfective with durativity (i.e., non-punctuality). As Kiyota (2008: 89) points out, ‘arrive’ with a plural subject denotes a complex situation consisting of multiple repeated arrivals. This is discussed further in §5.2.2, where I show that other verbs describing punctual situations can only take imperfective if they refer to iterations of the situation.

Kiyota (2008) does not treat the application of imperfective aspect as one of his situation type diagnostics, but the availability of aspect is one of the classic situation type tests used in other languages. Thus there is some indication that, in Salish languages, situation type is sensitive to information outside the verb, but more systematic study is needed to determine how. One reason we have not needed to look outside the verb is that so much information regarding argument structure and the nature of participants is
contained in the verb itself, given the rich derivational morphology of Salish verbs; in SENÇOFEN this includes obligatory object agreement and valence suffixes. The importance of derivational morphology to telicity is discussed in the next section, which looks at unaccusativity and Salish 'control' morphology.

2.2 Unaccusativity and 'agent control' as affecting situation type

This section focusses on two specific issues relevant to the classification of situation types in SENÇOFEN, both of which have been the subject of intense study in Salish languages. One is the unaccusative-unergative distinction (Perlmutter 1978), which has been investigated in work on Halkomelem and St'át'imcets (Gerdts 1988, 1991, 1993, 2006; Gerdts & Hukari 2006a; H. Davis 1997, H. Davis & Demirdache 2000; H. Davis & Matthewson 2009). The other is the derivational category of control, which has been the subject of various studies within Salish languages, and which has counterparts outside Salish, at least in some Austronesian languages.

Both unaccusativity and control interact with situation type. Some authors claim that unaccusativity may be subsumed by situation type (Van Valin 1990). Within Salish linguistics, some have claimed that the "control" distinction is really one of aspect or situation type. For SENÇOFEN, Kiyota (2008) argues that unaccusatives are achievements, and that the category of control distinguishes accomplishments from achievements in the transitive system. In chapter 4, I will investigate Kiyota's arguments further, showing that both the unaccusative vs. unergative distinction and the control vs. non-control distinction do indeed appear to affect situation type. Unaccusativity is also relevant to aktionsart. In Turner (2007), I argued that only unaccusatives may take the resultative and that unaccusatives cannot take the imperfective aspect. I have since found counterevidence for the claim that unaccusatives cannot take imperfective aspect. However, my other claim remains: resultative is only found with unaccusative bases.
In this section I will start by overviewing the early literature on unaccusativity, its extension to Salish languages, and its relationship with situation type (§2.2.1). I will then give a history of work on the Salish control distinction (§2.2.2).

### 2.2.1 Unaccusativity

The general idea of *unaccusativity* or *split intransitivity* is that intransitive verbs in a given language fall into two classes, semantically motivated but distinguished on the basis of syntactic tests (Levin & Rappaport Hovav 1995: 4). The original proposal of unaccusativity relies on a syntactic theory which has two levels. *Unergatives* are intransitive verbs with a participant that is typically agentive, and which is in subject position at both levels of syntax. *Unaccusatives* are intransitive verbs with a patient or experiencer participant, and which is in the subject position on the surface, but which is in the object position at some deeper level. Syntactic phenomena accounted for by unaccusativity in early work on the topic include the following: Mohawk incorporation, French use of impersonal passive vs. extraposition of indefinite (note from Paul Postal to David Perlmutter reproduced in Pullum 1990); pronoun use in Dakota (Perlmutter 1978, citing Boas & Deloria 1939); selection of the auxiliaries *essere* vs. *avere* in Italian, and the ability to take the partitive clitic *ne* and reflexive clitic *se* (Rosen 1984, citing unpublished work by David Perlmutter); the distribution of the middle voice in Sanskrit and Albanian (Rosen 1984).

The Unaccusativity Hypothesis was proposed by Perlmutter (1978; see also Perlmutter & Postal 1984), in the framework of Relational Grammar, following earlier discussions of Perlmutter and Postal, published in Pullum (1991: 141-159). Pullum (1991) notes that forms of the unaccusativity distinction among intransitives are found in several earlier sources (Sapir 1917, Postal 1962, Hall 1965, Fillmore 1968, Bowers 1972, Napoli 1973, Fiengo 1974; all cited in Pullum 1991), but that Perlmutter and Postal crucially first included in the class of unaccusatives some verbs which are purely intransitive (e.g., *exist*),
never used as transitives but yet still proposed to take an argument which is an object at some abstract syntactic level (Pullum 1990: 154).

Formally, a sentence in Relational Grammar consists of a set of vertical arcs, which represent predicates and syntactic arguments, and horizontal arcs, which represent two distinct levels, or strata, of syntax, an initial stratum and a final stratum. An unaccusative has a 2-arc (direct object) in the intial stratum, which is changed to a 1-arc (subject) in the final stratum. An unergative has a 1-arc (subject) in both strata, so only one level is represented in the diagram below.
Figure 2.4: Perlmutter’s (1978) diagrams of unaccusative and unergative

Where P=predicate, l=subject, 2=direct object, 3=indirect object, c₁=initial stratum

Unaccusative

```
exist gorillas
P 2
P 1
```

Gorillas exist.

Unergative

```
play gorillas night
temp
P 1
```

Gorillas play at night.

(Perlmutter 1978: 160-161)

These classes are generally distinguished in terms of their semantic properties as well, where unaccusatives have an argument with a patient thematic role, and unergatives have an argument with an agent thematic role.

In subsequent work on unaccusativity (Rosen 1984), the observation was made that verbs with the same kinds of meaning may differ in unaccusativity from language to language. This emphasises the idea that unaccusativity is not entirely dependent on the semantics of a verb, but rather its syntax, and so there can be mismatches, where a verb which seems to have a patient-like subject is syntactically unergative, or a verb which seems to have an agent-like subject is syntactically unaccusative. In order to determine which verbs are unaccusative and unergative in a particular language, therefore, one must carry out language-specific syntactic tests. In Rosen’s (1984) view, then, unaccusativity is primarily syntactically defined.

As noted above, strict syntactic unaccusativity relies on a two-level theory of syntax, as in the strata of Relational Grammar, or the Deep and Surface Structure levels of Government-Binding theory, in which theory Burzio (1981, 1986) provided another early proposal for the Unaccusativity Hypothesis. The theory of Role and Reference Grammar (RRG) (VanValin & LaPolla 1997) is a one-level theory of syntax, which also rejects the idea that grammatical relations (such as agent and patient) are primitive. Thus, it cannot accommodate either the syntactic or semantic view of unaccusativity. Within this theory, Van Valin (1990) argues that all of the criteria which are used to distinguish between
unaccusatives and unergatives can be accounted for by appealing to distinctions in the lexical semantics of verbs (represented by logical structures based on Dowty (1979)) and the RRG model of argument assignment. In RRG, semantic participants are assigned to syntactic arguments according to their position on an Actor-Undergoer Hierarchy, which ranks the types of arguments in logical structure of events on the basis of their likelihood to be actors or undergoers.

*Figure 2.5: RRG Actor-Undergoer Hierarchy (based on Van Valin 2004: 68)*

<table>
<thead>
<tr>
<th>ACTOR</th>
<th>UNDERGOER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arg. of DO</td>
<td>1st arg. of</td>
</tr>
<tr>
<td>do’ (x,...)</td>
<td>pred’ (x,y)</td>
</tr>
<tr>
<td>1st arg. of</td>
<td>2nd arg. of</td>
</tr>
<tr>
<td>pred’ (x,y)</td>
<td>pred’ (x)</td>
</tr>
<tr>
<td>Arg. of state</td>
<td></td>
</tr>
</tbody>
</table>

The situation types proposed within RRG are the activities, accomplishments, achievements, and states familiar from Vendler's classification with the additional basic class of *active accomplishments*, a class recognised by Dowty (1979), though not named (where DO operates on BECOME). In addition, each of the five basic situation types has a causative counterpart (Van Valin 2006: 167).

*Figure 2.6: RRG Logical structures of non-causative events*

- **Activity**: \(\text{do'} (x, [\text{predicate'} (x) \text{ or } (x,y)])\)
- **Active Accomplishment**: \(\text{do'} (x, [\text{predicate}_{1'} (x,y)]) \text{ & INGR } \text{predicate}_{2'} (z,x) \text{ or } (y)\)
- **Accomplishment**: \(\text{BECOME predicate'} (x) \text{ or } (x,y)\)
- **Achievement**: \(\text{INGR predicate'} (x) \text{ or } (x,y)\)
- **State**: \(\text{predicate'} (x) \text{ or } (x,y)\) (Van Valin 2006: 167)

These five non-causative situation types plus their causative counterparts for each of these are argued to be universal by Van Valin (2006).

Levin & Rappaport Hovav (1995) argue against both the predominantly syntactic approach of Rosen (1984) and the strictly semantic approach of Van Valin (1990, 2006). Levin & Rappaport Hovav maintain that unaccusatives and unergatives are distinguished on the basis of syntactic behaviour which cannot be explained entirely by its lexical
semantics. On the other hand, they hold that verbs in the unaccusative class all share certain relevant components of meaning, while the verbs in the unergative class all share other certain components of meaning. They stress the importance of recognising sub-classes of verbs within the classes of unaccusative and unergative, which can also be determined on the basis of systematic differences in semantics, if enough careful study is given to the verbs of a given language. This approach has been taken by Donna Gerdts and Tom Hukari in their focussed work Halkomelem verb classes and argument structure (e.g., Gerdts 2000, 2004, 2006; Gerdts & Hukari 1998, 2006a, 2006b, fc).

Early work on argument structure in Halkomelem (Central Salish) was carried out in Relational Grammar by Gerdts (1988, 1991, 1993). Gerdts (1988) provides several criteria to distinguish between the two classes. Her main tests for unaccusativity involve the grammaticality of certain verb roots with certain suffixes specifying argument structure. Her observation is that one group of verb roots can take the control transitive suffix -t and not the causative suffix -sts, while another group of verb roots can take the causative suffix and not the control transitive suffix. Gerdts (1988) proposes that the former are a class of unaccusatives, while the latter are a class of unergatives. Other tests also distinguish the two classes: unergatives have the sense of 'want' when taking the desiderative -alman, while unaccusatives with the desiderative express a "natural, unavoidable future" (Gerdts 1988: 848). Notice that these tests involve the availability and interpretation of certain affixes. Thus, Gerdts's tests are only syntactic if the transitive and causative suffixes are accompanied by different syntactic structure; in Gerdts's (1988) Relational Grammar analysis, they do differ. Drawing on Gerdts's (1988) work, Howett (1993) argues that the classes of unaccusative and unergative are relevant in Thompson Salish (Nle?lkepmx) as well.

Gerdts (1991) shows that her unaccusativity tests do not split the class of Halkomelem intransitives once and for all into two classes. Based on a study of 100 verb

9 The SENÇOTEN cognate is -elgon.
roots, Gerdts shows that some verbs take causative but not desiderative, while other verbs take desiderative but not causative. These she argues also fit into semantically unified classes: those which take causative only are *states* (most of these look like the SENCOTEN individual-level (homogeneous) states). The verbs which only take desiderative are *processes*. Processes and states are both taken to be subclasses of unaccusatives.

Having tested the combinatorial possibilities of a much larger class of Halkomelem verb roots (467) with different suffixes, Gerdts & Hukari (2006a) and Gerdts (2006) revisit the unaccusativity tests once again. In these papers, the classes identified in Gerdts's (1991) study are supported further. The papers also claim that some Halkomelem roots are transitive, challenging the widespread idea that all Salish roots are intransitive (Kuipers 1968, Hess 1993, Jelinek 1994, H. Davis 1997, Suttles 2004). It is not that Gerdts & Hukari have found a new class of verb roots which can appear in transitive clauses with no transitivising suffix, but rather that there is a large class of verb roots which cannot appear without a transitivising suffix. In their view “the transitive suffix is a verbal inflection that can appear on bases that are already semantically transitive” (Gerdts 2006: 75-76). This view is challenged by H. Davis & Matthewson (2009: 1102-1103) on the basis that it undermines the generative idea of productivity, which is interested not only in which words are attested, but also in which words are possible.

Gerdts (2006) argues that her claims of split intransitivity still hold in Halkomelem, despite the fact that about half of the 467 verbs in Gerdts & Hukari’s corpus are “swingers”, verbs which appear to follow both unergative and unaccusative behaviour depending on the context, citing that this is common in languages with split intransitivity. Gerdts’s (2006) classification of unergatives remains as in previous papers: unergatives are those verbs which cannot take the control transitive suffix [-t], and can take the causative suffix [-stox*]. Unaccusatives are further split into processes and states, based on their behaviour with respect to four suffixes: causative, control transitive, limited control transitive (what I am calling *non-control transitive*), and desiderative.
Process unaccusatives take the control and limited control transitive suffixes regularly. Some process unaccusatives, those with three semantic participants, take the causative suffix. Most state unaccusatives take the causative suffix to express meanings such as "to make, get, have, keep, or find something in that condition or state" (Gerdts 2006: 73). Some state unaccusatives take the control transitive suffix with the meaning 'change, make', and some take the limited control suffix with an aspectual meaning. In both unaccusative classes, some but not all verbs take the desiderative suffix, but it is used with an "aspectual" function, expressing that a situation is likely to happen in the near future.

Some transitive roots are never found without a transitive suffix (control or limited control). Another group of transitive roots can be found with or without a transitive suffix, but when they are intransitive they have an agentive subject (p. 77). This is unexpected given that the original test for an unaccusative verb was its ability to take the control transitive. Gerdts (2006) argues that these unergatives have transitive semantics. Some transitive verbs also take the causative suffix, to be used in a ditransitive clause. They do not take the desiderative suffix.

Unaccusativity is also discussed, from a rather different point of view, in the work of H. Davis (1997), H. Davis & Demirdache (2000), and H. Davis & Matthewson (2009) on St'at'imcets. These papers argue that all verb roots are unaccusative in St'at'imcets, and by hypothesis all Salish languages (H. Davis 1997 also extends this to all languages in the world). Davis starts with the observation that the unaccusative verb roots in St'at'imcets and other Salish languages far outnumber the unergative verb roots. This is partly because very many unergative verbs in the language are not roots, but are derived through various suffixes. Some of these suffixes transparently derive unergatives from corresponding unaccusatives, while others contain recognisable suffixes which appear to be

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10 H. Davis (1997: 81) states that there are approximately 75 unergative roots and 2000 unaccusative roots in St’at’imcets. Gerdts (2006: 69) lists 28 unergatives out of 467 verb roots, which is an equally small proportion; however, she lists only 55 canonical unaccusatives. The rest are ‘swingers’ and transitive roots, which would presumably be considered unaccusative in Davis’s (1997) view.
re-analysed as part of the verb root. On the other hand, Davis points out, there is no morphology which derives unaccusatives from unergatives.

H. Davis (1997) then goes on to show that unergative verb roots behave identically to transparently derived unergatives with respect to the following properties: they are both incompatible with inchoative morphology, they share the same interpretation with respect to ‘out of control’ morphology, they both take the desiderative suffix -almon, meaning ‘want to’. In addition, the unergative verb roots fall into the same two sub-classes as the derived unergatives, one describing an event with an implied object (Gerdts calls these antipassive; see §3.3) and one describing an event which is “medio-reflexive” (the single participant carries out an event for their own benefit). These similarities show that there are unergatives with no overt morphology and unergatives with overt morphology.

H. Davis (1997) argues that the unergatives with no overt morphology are nonetheless zero-derived unergatives. In my opinion, his best evidence for this is the existence of verbs which alternate between an unsuffixed form and a suffixed form with the same meaning (e.g., qum ~ qum-lax ‘to shrivel’) and verb pairs with different forms but the same meaning, where one is unsuffixed and one suffixed (e.g., axiē ‘to lie down’ vs. kic-lax ‘to lie down’) (H. Davis 1997: 89-90). Transitives are also derived in Salish languages, a claim which at the time was not particularly controversial, and is only challenged by Gerdts & Hukari’s recent work (discussed above). Therefore, in Davis’s (1997) view, the only primitive verb class in the lexicon is the class of unaccusatives (p. 91).

H. Davis & Demirdache (2000) build on this approach. Following the proposals of Chierchia (1989, later published as 2004) and Reinhart (1997), they argue that all unaccusatives in St'át'imcets have an underlying causative semantics. In addition, H. Davis & Demirdache treat all unaccusatives as representing telic events, and adopt the framework developed by Pustevosky (1991, 1995). Unaccusatives only foreground the initial subevent

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11 This is similar to one of Gerdts's (1988, 1991, 2006) tests. In Halkomelem, unergatives and unaccusatives have a different interpretation with the desiderative suffix. In St'át'imcets, there are two distinct, historically related, desiderative suffixes. Only unergatives take -almon 'want to', and only unaccusatives take -almon 'almost' (H. Davis 1997: 85).
of a complex telic event (a Pustejovskyan transition, akin to a Vendlerian accomplishment), but their semantic representation actually contains the full complex telic event. Transitives are then derived from unaccusatives, but have the same event structure. They differ in that they foreground the whole transition event. Thus, H. Davis & Demirdache (2000) draw a direct link between event structure and unaccusativity. This paves the way for Bar-el et al.’s (2005) and Kiyota’s (2008) claims that unaccusatives are achievements, and that control transitives derive accomplishments from their unaccusative counterparts.

In Turner (2007), I also appealed to unaccusativity in my work on imperfectives and resultatives (Turner 2007), hypothesising that unaccusatives do not take imperfective aspect. I have since found much counterevidence to that claim, and will argue in chapters 4 and 5 that all verbs are grammatical with both perfective and imperfective aspect. Aspect is sensitive instead to situation type. This new hypothesis is made in light of my exploration of the relationship between unaccusativity and situation type in chapter 4. Although Kiyota (2008) claims that unaccusatives are achievements, he does not explicitly claim that all unaccusatives are achievements (though it is implied), and he does not define unaccusativity. In chapter 4, I will compare Gerdt’s Halkomelem unaccusatives with Kiyota’s SENÇOFEN intransitive achievements to see if the two are in fact the same class of verbs. I also compare Gerdt’s unergative tests to Kiyota’s SENÇOFEN intransitive activities and inchoative states. This comparison finds that Gerdt’s tests by and large pick out the same classification as Kiyota’s.

Gerdt’s (& Hukari) and H. Davis (& Demirdache) both capture an important facet of Salish languages: the use of very productive derivational morphology to change both event semantics and the specification of thematic roles. Davis shows that there are derived verbs which behave identically to the class of unergative roots. The evidence for this is found in Halkomelem too: derived intransitive verbs with agentive subjects also take the causative suffix and not the control transitive. As H. Davis (1997) points out, many intransitives with transparent derivational morphology behave just like underived
unergatives with respect to other properties as well. For my purposes, it makes no difference whether all verb roots in the language are underlyingly unaccusative, since I am not dealing with roots versus affixed verbs, but rather with semantic classes defined on the basis of derivational morphology or on their ability to combine with certain derivational morphology. When speaking of unergatives and unaccusatives in this thesis, I refer to verbs which appear to pattern like unergatives and unaccusatives with respect to Gerdt's tests. Some of these are roots, and some are derived.

2.2.2 Control

*Control* is used in a very specific sense here, as it is a grammatical category found in many Salish languages (Czaykowska-Higgins & Kinkade 1998: 29-30). The Salish category of control has been discussed at length by Thompson (1979a, b, 1985) in work on Thompson Salish, and is described in detail in L. Thompson & M. Thompson's (1992) grammar. Thompson argued that all Thompson Salish predicates are specified for either [+ctl] or [-ctl], and these features are defined as follows.

Controlled situations are those in which the agent functions with usual average capacities in keeping things under control...Non-control covers not only unintentional, accidental acts, but also intentional, premeditated ones which are carried out to excess, or are accomplished only with difficulty, or by means of much time, special effort, and/or patience, and perhaps a little luck. (L. Thompson & M. Thompson 1992: 51)

The Thompsons' approach argues that verb roots are usually (but not always) specified for control [+/-]. Example (2.32) is a 'non-control root' with the value [-ctl], and (2.33) is a 'control root' with the value [+ctl]. These values are based not on any morphological feature, but on the semantics of the root itself.

(2.32) kʷis kn
fall 1SG.SBJ
'I fell.' [-ctl] (L. Thompson 1985: 394)

12 The English name for this Salish language is not due to the linguists Laurence and Terry Thompson, but after the Thompson River in Southern British Columbia and Washington.
In addition, some suffixes can change the [ctl] value of a root, while providing other information. The [-ctl] root meaning 'cut' is argued to take on a [+ctl] value when it is used with the [+ctl] suffix 'directive' [-e].

\[(2.34)\] nik\(-e\)-t\(_p\)
nik\[-ctl\]-DRV[+ctl]-TR-2PL.AGENT
'You people cut it.' [\(+\text{ctl}\)] (L. Thompson 1985: 406)

The [+/- ctl] suffixes are arranged by L. Thompson & M. Thompson (1992) on a hierarchy of dominance, using dominance feature [+/-dom]. The more dominant suffixes are more likely to change the [ctl] value of the predicate.

Figure 2.7: Thompson and Thompson's (1992) hierarchy of control suffixes

<table>
<thead>
<tr>
<th>Unmarked [+ctl]</th>
<th>[-ctl]</th>
<th>[+ctl]</th>
<th>[-ctl]</th>
</tr>
</thead>
<tbody>
<tr>
<td>for ctl [-dom]</td>
<td>[-dom]</td>
<td>[+dom]</td>
<td>[+dom]</td>
</tr>
</tbody>
</table>

(L. Thompson & M. Thompson 1992: 52)

One problem with this exhaustive account of control, where almost every root and suffix in the language is specified for [ctl], is in finding evidence for the control values of predicates. It is not clear what L. Thompson & M. Thompson use for this other than intuition.

A more restricted approach to control has been taken by other linguists working on Salish languages. For example, Saunders & P. Davis (1982) examine control in Bella Coola (Nuxalk). They describe a set of suffixes which describe various types of full control, limited control, and non-control. Situations involving control are ones where the action is performed in a way that is normal to expectation (p. 3). Examples (2.35) to (2.37) show the three degrees of control possible in Bella Coola.

---

\(^{13}\) The Thompson Salish *directive* suffix is one of the language's transitive suffixes. It normally indicates a punctual event with an intentional agent (Howett 1993: 16). It is normally of the form \(-n\), but on some stems it is manifested as \(-e\) (L. Thompson 1985: 406). Cognates to the Thompson directive are found in other Interior Salish languages.
Bella Coola:

(2.35) wil-aX-is vans ti-stilwa-tx

pour-floor-he/it Vance -broth-

‘Vance poured the broth on the floor.’ [ctl] (Saunders & P. Davis 1982: 12)

(2.36) wil-aX-ay-nix-is vans ti-stilwa-tx

pour-floor-AUX-LC-he/it Vance -broth-

‘Vance accidentally poured the broth on the floor.’ [limited ctl] (Saunders & P. Davis 1982: 12)

(2.37) wil-aX-ay-layx-Ø vans x-ti-stilwa-tx

pour-floor-AUX-NC-he Vance PREP-...broth-

‘Vance spilled the broth on the floor.’ [-ctl] (Saunders & P. Davis 1982: 12)

In addition, each of the control values can be distinguished in terms of direct or mediated control.

Control and non-control suffixes are also discussed in descriptions of other Salish languages contemporary to the Thompsons’ work. Beaumont (1977) gives a list of the different terms used for this distinction, most of which involve notions of non-volitionality, lack of responsibility, and low control. He does adopt the term control, but emphasises that the non-control suffix in Sechelt can be used either with an ‘accidental’ or a ‘managed-to’ reading.

Sechelt:

(2.38) ti-čon kʷol-naxʷ-an čon sʔiwuc
FACT-1SG.SBJ spill-NC.TR-1SG.SBJ GNRL.DET;1SG.POSS water

‘I spilled my water (“accidentally”).’ (Beaumont 1977: 5)

(2.39) li-čon səp-naxʷ-an
FACT-1SG.SBJ slap-NC.TR-1SG.SBJ

‘I managed to slap him’ (Beaumont 1977: 3)

He draws a comparison with the causative suffix, stating that the object of the causative is restricted in the same way as the subject of the non-control transitive. The referent of the causative object can be either made to do something or allowed to do something by the referent of the subject; the referent of the non-control transitive subject can be either made to do something or enabled to do something by some outside force. Galloway (1978), citing Beaumont, also draws connections between control and causativity, suggesting that the control transitive, non-control transitive, and causative of Upriver Halkomelem are all part of a set of obligatory control transitive suffixes.
Thompson’s extension of the notion of control beyond the transitive suffixes of Sechelt and other languages (and ‘out of control’, discussed below) has not been generally adopted. Presumably one reason the idea of control and non-control roots has not caught on is that it has been subsumed by the more empirically grounded work of Gerdts (1988, 1991) on Halkomelem unaccusativity. Howett (1993) provides an updated study on the verb roots of Thompson, and concludes that unaccusativity is a relevant classificatory tool in Thompson as well as Halkomelem.

However, the terms control and non-control transitive or control and limited control transitive are standardly used in descriptions of Central Salish languages. The distinction for SENCOTEN is shown here:

\[(2.40)\]
\[a. \text{ I, ÙEL,ET SW} \]
\[?i?-k^al-et=sx^ \]
\[\text{CONTIN-spill-C.TR[PFV]=2SBJ DIST.DEM} \]
\[\text{You poured it/spilled it.} \ (10V.69b) \]

\[b. \text{ I, ÙEL,NOW SEN} \]
\[?i?-k^ol-nax^=son \]
\[\text{CONTIN-spill-NC.TR[PFV]=1SG.SBJ GNRL.DET water} \]
\[I managed to tip the water out; I finally tipped the water out. \ (4.18) \]

These transitives can then have reflexives, reciprocals, and passives built on them (chapter 3), so that the control distinction covers four types of lexeme.

As shown in §2.2.1, the availability of a control transitive suffix is one of Gerdts’s (1988, 1991) tests for unaccusativity. The non-control transitive suffix, on the other hand, appears with unaccusative and some unergative roots in Halkomelem; an unergative example is \(?\text{ämättnax}^\prime \text{manage to get someone seated} \) (Gerdts 2008: 2). During SENCOTEN elicitations, both Kiyota (2008) and I focussed on roots which could take both control and non-control transitive. I have, however, come across some potentially unergative roots with the limited control suffix, as in the inchoative state \[\text{nag}^\prime \text{go to sleep}:\]

\[(2.41) \text{ NEKNOW SEN} \]
\[\text{CONTIN-go.to.sleep-NC.TR=1SG.SBJ GNRL.DET baby} \]
\[\text{I finally made the baby go to sleep.} \ (1.50) \]
Besides the control distinction among transitives, some Salish languages contain 'out of control' morphology. This term is due to B. Carlson & L. Thompson (1982), who describe it as "emphatic non-control" (p. 52) in their study of Spokane and Thompson. An example from Thompson is given here.

Thompson Salish:
(2.42) nox*~ox* run~OOC
'[animal] is forced to run [because of a natural catastrophe or because of a pursuer]' (L. Thompson 1985: 402)

Kinkade (1982) shows that 'out of control' appears in Moses-Columbian as well.

Kroeber (1988) suggests a historical link between inceptive in Comox and 'out of control' in these Interior languages, given that they share form (~C2 recuplication). There appear to be cognates with an inceptive meaning in Tillamook and Twana as well (Kinkade 1996: 14). Kroeber also suggests a link with the recursive of Lushootseed (Hess 1966) and the slow of Upper Chehalis (Kinkade 1985). In work on St'át'í'mcets, Demirdache (1996, 1997) provides a formal analysis of 'out of control', which is expressed by the circumfix ka...a (called resultative by van Eijk 1997: 51). She adopts a framework based on Pustejovsky (1991, 1995), and argues that 'out of control' suppresses the initial sub-event (or the name associated with that sub-event) of the predicate it applies to. As such, it affects the event structure of the predicate. 'Out of control' differs from the control/non-control distinction of transitives in that it is outside of the valence-changing system of affixes. It can in fact apply to any type of predicate. According to Demirdache, with activity verbs or verbs with a causative meaning, 'out of control' yields an 'able to' reading (2.43). With verbs with a causative meaning, it yields an accidental reading (2.44), and with unaccusatives, it yields a spontaneous/unexpected reading (2.45).

St'át'í'mcets:
(2.43) ka-alkst-kan-a
OOC-work-1SG.SBJ-OOC
'I am able to work.' (Demirdache 1996: 103)

(2.44) ka-paqu7-s-kan-a
OOC-scared-CAUS-1SG.SBJ-OOC
'I accidentally scared him.' (Demirdache 1996: 103)
Demirdache (1997: 98) describes 'out of control' as the opposite of a passive: it affects lexical meaning without affecting argument structure. Following Kiyota’s (2008) observations, I characterise control and non-control transitives of SENĆOTEN in chapter 4 as affecting both lexical meaning and argument structure.

In recent work on St’àl’ic̓ets, H. Davis, Matthewson & Rullman (2009) and H. Davis, Louie, Matthewson, Paul, Peterson & Silva (fc) have defined ‘out of control’ as an indicator of circumstantial modality, a type of modality which evaluates a situation based on certain facts that happen to hold in the real world. They claim that all of the uses of ‘out of control’ suggest either that the subject’s referent has the ability to perform an action, or has no choice. H. Davis et al. (2009: 239-240) argue that Demirdache’s event structure analysis makes certain predictions which are found not to hold. The different interpretations associated with ‘out of control’ are predicted to surface with different situation types; however, H. Davis et al. (2009) show that this is not the case. In SENĆOTEN, the control transitive is basically only derived from one situation type; namely, achievements. However, the limited control transitive can be derived from at least achievements and inchoative states. I suggest in chapter 4 that its interpretation does depend on the situation type of its base.

Although Thompson’s definition of control has been the one most prevalently used in descriptive work on Salish languages, the control/non-control distinction has been analysed in other ways. Gerdts (2008) suggests that non-control verbs in Halkomelem express that “in the speaker’s judgement, the event falls outside the range of usual behaviour or optimal circumstances for accomplishing an action” (p. 3).

Several authors have made a connection between the different transitivisers and aspect or situation type. Hébert (1979, 1982) proposes that the Okanagan -nt and -st (Thompson’s control transitive and causative, respectively) should be analysed as aspect suffixes -n ‘perfective’ and -s ‘imperfective’, with the -t as a transitive suffix. She claims
that main clauses containing -n are translated as completed events and those with -s as ongoing:

Okanagan:

\[(2.46)\] \(Q''\text{\textacuten}'\text{-as-t-in} \quad \text{\textasciitilde i stom'tim}'\).
\(\text{wring-PFV-f-1SG}\text{\_TRANS} \quad \text{the clothes}\)
\(\text{\'I\ am\ wringing\ the\ clothes.' \ (H\text{\textae}bert\ 1982: 203)}\)

\[(2.47)\] \(Q''\text{\textacuten}'\text{-a-n-t-in} \quad \text{\textasciitilde i stom'tim}'\).
\(\text{wring-IPFV-f-1SG}\text{\_TRANS} \quad \text{the clothes}\)
\(\text{\'I\ wrung\ the\ clothes.' \ (H\text{\textae}bert\ 1982: 203)}\)

She gives evidence that -n is incompatible with the adverb \(p\text{\textacutenul}i\) 'still' (p. 198) and that -s cannot be used with roots denoting punctual situations, except in dependent clauses when in combination with the prefix c-, which she labels 'perfect'. In Okanagan, the non-control suffix actually co-occurs with the control transitive -nt. H\text{\textae}bert states that it does not occur with -st. Kiyota (2008) argues that control transitives are “quasi-telic”, i.e., they implicate culmination. SENC\text{\textae}TEN causatives looks like they might be atelic, but I have not done systematic testing to determine this. It may be that H\text{\textae}bert\text{\textae}s evidence points to a telic-atelic distinction, rather than a perfective-imperfective distinction.

In the course of H\text{\textae}bert\text{\textae}s (1982) arguments against the control analysis, she provides an example which shows an important property of control transitives (i.e., her “perfective”), which had also been noted by J. Davis (1978). This is the fact that control transitives can denote events which do not culminate. Both authors question the term control (H\text{\textae}bert strongly, J. Davis mildly) by stating that the control transitive does not entail that the agent was successful in their attempted action. The phenomenon of non-culminating accomplishments was discussed in §2.1.2.

B. Carlson (1996) is the first to connect the non-control suffix with telicity, in a paper on Spokane. As in Okanagan, the non-control suffix in Spokane, -nu, co-occurs with the control transitive -nt. Carlson applies Smith's (1991) featural model of situation type to Spokane, arguing that the non-control suffix indicates that an event is both durative and telic; hence, an accomplishment. According to B. Carlson (1996), the Spokane -nu always indicates that an agent has been successful in carrying out a action after some effort. The
accidental reading familiar to Central Salish non-control forms comes from the co-occurrence of -nu with 'out of control' reduplication (described above). He shows on pp. 64-65 that there is also an intransitive version of this accomplishment-making suffix, -el, and a similar suffix appearing with middles, which has the form -nweI. "The control function of the success morpheme emphasises extra effort. The aspectual function emphasises duration with eventual completion or change of state." (p. 67)

Watanabe (2003: 203) confirms Davis's (1978) observation regarding the Comox-Sliammon control suffix -t: it does not entail that the situation culminates. The non-control suffix -ng, however, does. He suggests that, while the control analysis offered by Thompson observes the contrast from "the agent's point of view", his aspectual approach observes it from the patient's point of view. He cites a manuscript by Kroeber on control and aspect, which discusses the same approach. The hypothesis is that control predicates encode the starting point but not the end point, while non-control predicates encode the end point "(but apparently not the starting point)" (p. 204). Two of Watanabe's examples are shown here.

Sliammon:

(2.48) kap-t-ul=don ?iy x*a? kap-as
    cut-C.TR-PST=1SG.IND and NEG cut-3CNJ15
    'I cut it, but it is not cut.' (Watanabe 2003: 205)

(2.49) *kap-$x$w-an ?iy x*a? kap-as
    cut-NC.TR-1SG.ERG and NEG cut-3CNJ16
    ('I cut it, but it is not cut.')16 (Watanabe 2003: 205)

Watanabe (2003) suggests that, rather than the Thompson's observation regarding agent control, an event structure distinction may be the most important factor which distinguishes control from limited control verbs:

Encoding the completion or the actualization of an event appears to be an important function of the Noncontrol [limited control] transitivizer; in fact, it may be possible that such a function is of greater

14 It is also Paul Kroeber who pointed me to Watanabe's (2003) work on control. I am very grateful to both of these scholars, and to Henry Davis, who together raised my awareness of the "aspectual" approach to control in the Salish literature.

15 Glosses have been changed slightly from the original in order to be consistent with the glossing used in this thesis and the Leipzig Glossing Rules. CNJ=conjunctive subject.

16 Watanabe's (2003) parentheses indicate the expected translation of this ungrammatical sentence.
significance than the one assumed by the ‘Control analysis’, which is more semantic in nature. (Watanabe 2003: 204)

Matthewson (2004), Bar-el (2005), and Bar-el et al. (2005) extend this idea to two more Salish languages. They show that control transitives in St'át'ímcets and Skwxwu7mesh can have their culmination cancelled.

St'át'ímcets:
(2.50) k‘ul’-ún’-lhkan ti ts’lá7-a, t’u7 aoy t’u7 kw tsukw-s
make-TR-1SG.SBJ DET basket-DET but NEG just DET finish-3POSS
‘I made the basket, but it didn’t get finished.’ (Bar-el et al. 2005: 4)

They also provide a formal semantic analysis of the difference between control transitives, which they suggest have a culmination implicature, and unaccusatives, which have a culmination entailment.

Kiyota (2008) takes Davis’s/Watanabe’s observation further by looking at control vs. limited control transitives in SENÇOTEN and applies the Matthewson/Bar-el analysis to it. He finds that, like in Sliammon, limited control transitives differ from control transitives in that they do entail culmination. He also finds that limited control transitives behave differently from control transitives with respect to the ‘almost’ test. These tests are discussed in §2.1.2 and §4.3.

Watanabe (2003: 206-211) shows that, as in SENÇOTEN, Sliammon non-control transitives are often rejected with the imperfective aspect, but are sometimes accepted.

According to Watanabe, imperfective non-control transitives are acceptable as long as some of the result of the action has been realised.

Sliammon:
(2.51) ča-čx-əx*-an
IPFV-cook-NC.TR-1SG.ERG
‘I have been cooking.’ [Some are cooked already, but I am still cooking more.] (Watanabe 2003: 208)

This suggests that the culmination entailment of non-control transitives holds not only in the perfective aspect, but also in the imperfective aspect. This work by Watanabe is highly relevant to my description of SENÇOTEN. I have not yet tested the culmination requirements of imperfective non-control forms in SENÇOTEN, but expect that they will behave like those in Sliammon, since the behaviour of control and culmination seems to be
identical across the language family. This then provides further evidence that the distinction cross-cuts aspect and thus is not indicative of a neutral vs. imperfective aspectual distinction.

I will be adopting and furthering the evidence for an “aspectual” analysis of control in Salish languages. However, at this stage, I will continue to use the terms control and non-control to designate the suffixes -t and -nax in SENĆOTEN. I am aware that Jacobs (fc) has been working on a thesis on control in Skwxwú7mesh, and I do not want to simultaneously provide new terms for these suffixes. I would rather wait until a consensus on the meaning of control has been reached by those of us who are conducting this research, in order to avoid terminological confusion for later generations of linguists and language learners.

A phenomenon similar to Salish control has also been noted in certain Austronesian languages. Dell (1983/1984) describes a contrast among verbs in Tagalog.

Most verbs have both a neutral vs. ability form:

Tagalog:
(2.52) a. hinipo niy ang dingding
N-PFV-touch GEN-3SG NOM wall
‘He touched the wall (on purpose).’ (Dell 1983/1984: 175)

b. nahipo niy ang dingding
A-PFV-touch GEN-3SG NOM wall
‘He managed to touch the wall; He accidentally touched the wall.’ (Dell 1983/1984: 175)

Like Salish control/non-control, the neutral forms implicate that the situation culminates, but are compatible with scenarios where the culmination is not realised:

Tagalog:
(2.53) Pumuntata sa Maynila si Pedro,
N-PF-go DAT Manila NOM Pedro

pero naligaw siya, kaya hindi siya nakapunta
but get.lost NOM-he hence not NOM-he A-PFV-go
‘Pedro set off for Manila but got lost, and didn’t get there.’ (Dell 1983/1984: 180)

The sentence with the AIA (ability and involuntary-action) form, on the other hand, entails culmination. Dell’s characterisation: “one uses a neutral form when one intends to assert that a certain Maneuver took place, but one wants to remain noncommittal as to whether it
did actually bring about the intended Result; on the other hand, one uses an AIA form when the main business at hand is to assert that a Result, intended or not, was actually achieved”. (181). He also draws a parallel to control, noting that with situations described using the AIA forms, the agent never has total control over his/her actions (p. 191).

Kroeger (1990) discusses the same phenomenon in Kimaragang Dusun, and cites the phenomenon as found in other “Phillippine-type” Austronesian languages. He terms the equivalent of Dell’s neutral forms as being in the eventive aspect, and the AIA forms in the stative aspect, so called because it focusses on the resulting state of the situation (not because it actually denotes a stative situation in the usual sense). He notes that the stative forms are used to describe situations which take place prior to some other situation (p. 118).

In §2.1.2, I discussed the phenomenon of non-culminating accomplishments, found in several languages. One interesting thing about Salish non-culminating accomplishments (and seemingly those in Austronesian languages as well) is that the non-culminating property (i.e., the implicature rather than entailment of culmination) appears to be added through productive derivational morphology (Bar-el et al. 2005). In §4.3, I will give some evidence that the non-culminating property is found not only in control transitives, but also in control reflexives and control passives in SENČÖTEN. This provides further evidence that the control distinction itself is really a distinction relating to culmination requirements. This line of investigation is also taken up by Jacobs (fc), who finds a similar pattern in Skwxwú7mesh.

Two works on Athabaskan languages are relevant to this discussion as well. Rice (2000: 260) argues that situation type in Slave is indicated partially through the use of certain derivational suffixes. Wilhelm (2007) argues that telicity is grammatized at (i.e., grammatically relevant to) the VP domain, and thus interacts with argument structure, while durativity is grammatized at the IP domain, and thus interacts with grammatical aspect. Her claim is based on German (which grammatizes telicity but not perfectivity) and on Dëne Súłiné (Chipewyan) (which grammatizes perfectivity but not telicity), but she
predicts that it will carry cross-linguistically. In fact, her claim is consistent with the Salish system, since the control suffixes and other valence-changing suffixes affect telicity. I have also found that punctual (i.e., non-durative) situations are incompatible with imperfective aspect in SENĆOTEN. Thus, both of Wilhelm’s predictions are borne out in SENĆOTEN. The role of derivational morphology in telicity and other distinctions is discussed in chapter 4.

2.3 Telicity and perfectivity

Correlations between situation type and grammatical aspect provide an important role in this thesis, where it is argued that the strongly telic situations are rarely expressed by clauses in the imperfective aspect. Threaded through the literature on aspect and situation type, in grammatical descriptions of languages, in general overviews, and in theoretical work, the ideas of telicity and perfectivity are subject to comparison and sometimes conflation. While some argue strongly that the two should be kept apart (e.g., Smith 1997, Bertinetto 2001), there appears to be much evidence that the two are correlated in interesting ways. In Smith’s (1997) terms, telicity is about completion (situations that can finish) and perfectivity about termination (a view of an event as stopped before the end of the reference time). We know that perfectivity and telicity are not the same thing, since in many languages there is a perfective-imperfective contrast that applies freely to different situation types.

However, there is a semantic similarity between termination and completion. Perfectivity and telicity both have to do with a concept of a bounded situation, a situation which has ended or is expected to end. The semantic similarity between termination and completion, and between the behaviour of predicates distinguished on the basis of situation type and those distinguished on the basis of aspect, has prompted some authors to propose a model of aspect and situation type which are based on the same mechanism, operating at different levels in different languages and sometimes within a language. In §2.3.1 I
summarise some of these proposals and also discuss work showing the correspondence between grammatical aspect in one language and situation type in another.

A significant area of research on the correlations between situation type and aspect is that of language acquisition. Studies have shown that children and second language learners tend to apply imperfective aspect to atelic situation types and perfective aspect to telic situation types earlier than the other way around. These studies are discussed in §2.3.2. Some studies have shown that these correlations are not just in learner's language, they are in the input too; i.e., adult first language speakers produce more perfective telics and imperfective atelics. This may be because telicity and perfectivity have a similar function in discourse: roughly speaking, perfectives and telic situation types are used for foregrounding; imperfectives and atelic situation types are used for backgrounding. §2.3.3 addresses studies on the role of aspect and situation type in texts and other forms of discourse.

2.3.1 Cross-linguistic semantics

In some languages, it appears, the distinction between telicity and perfectivity is clearer than others. The context in which the words telic and atelic are first used is a paper by Gary (1957) on aspect in French. He surveys the previous literature on French aspect, in which telicity and perfectivity are often confused, and then concludes “there must be a distinction between lexical aspect and grammatical aspect” (p. 105). Garey goes on to propose that French verbs belong to different classes, telic and atelic and that both classes of verbs are compatible with perfective and imperfective aspects:

*Figure 2.8: Gary's characterisation of telicity and perfectivity in French*

<table>
<thead>
<tr>
<th>IMPERFECTIVE</th>
<th>PERFECTIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>TELIC</td>
<td>Pierre arrivait  Pierre est arrivé</td>
</tr>
<tr>
<td>ATELIC</td>
<td>Pierre jouait   Pierre a joué   (Gary 1957: 106)</td>
</tr>
</tbody>
</table>

Aspect, he argues, is not about telos, but is about the relationship of the event time to the reference time—an idea formalised by Klein in (1994). Garey also points out that the verb's complement can affect telicity.
Mourelatos (1978) emphasises that the classes proposed by Vendler (1957) and Kenny (1963) are determined not only by the lexical meanings of the verb, but also by other factors, including the verb’s arguments (as discussed above), adverbials, tense and aspect (p. 199). Unlike Verkuyl (1972), for example, Mourelatos does not offer an analysis of how situation type is built up out of these different elements, but he does point to some important issues in predicate classification, which have been taken up in subsequent literature. Relevant for this section is his claim that Russian aspectual affixes, Greek perfective and imperfective, and the English progressive can all contribute to a distinction between telic and atelic predicates (p. 195).

Declerck (1979) takes a similar position. She argues that not only is boundedness (telicity) a property of situations rather than verbs, but viewpoint aspect (namely, imperfective) can affect the boundedness of the proposition (p. 767). Declerck emphasises that boundedness is not seen as a property of a situation itself (i.e., the real world occurrence), as it is possible to use a bounded proposition like *John drank six glasses of whisky* and an unbounded one like *John drank whisky* to refer to the same situation (Declerck 1979: 764). Turning to English progressive, Declerck (1979: 767) shows that progressive sentences behave like non-progressive sentences of atelic situations. For example, they are compatible with *for hours* and incompatible with *in an hour*. Thus, she argues that the telicity of a sentence (*bounded-unbounded* interpretations in her terms) can be brought on by, among other things, the PROGRESSIVE operator.

Others argue that aspect can shift the situation type of a predicate. Among these are Hinrichs (1985) discussing English progressive and Kamp & Rohrer (1983) discussing the French imparfait (cited in de Swart 1998: 347). De Swart (1998) in particular argues that situation type and grammatical aspect share the same model-theoretic notions. She claims that English progressive involves “stripping an event of its culmination point” (p. 355), yielding stative situations. She cites this idea as due to Moens (1987). Her analysis of French is more relevant to this section on telicity and perfectivity, since she posits that sentences with passé composé refer to telic situations (“events”) and those with imparfait
to atelic situations ("states and processes") (p. 368). As seen with Garey’s (1957) examples above, both sentences referring to telic situations and those referring to atelic situations can take both aspects. De Swart thus proposes that when, for example, the imparfait is used with a telic situation, the situation must be coerced into atelicity.

The syntactic approach of Borer (2005) also proposes that telicity and perfectivity are due to the same mechanism, suggesting that some languages encode telicity in the direct object of a VP, while some encode it in aspect morphology (cited in van der Auwera & Filip 2008: 205-206). However, Borer’s approach appears to be based on Slavic prefixes, so perfectivity here may not refer to the same thing as SENCOTEN perfectivity (which is more like the perfectivity of French and Italian—see §2.1.1).

Timberlake (2007), in his general overview of tense, aspect, and mood in language mentioned in §2.1, explicitly states that aspectual operations (perfective, imperfective, progressive, and perfect morphology) “make use of the same concepts that describe the aspectual proclivities of predicates” and perfectives are characterised as bounded or liminal (p. 287). Non-liminal [atelic] situations have a dispreference for the perfective; activities have time limits placed on their duration, as in for example, Russian drognut’ ‘quiver, tremble once’, which is a perfective formed on the imperfective drozaf ’quiver, tremble repeatedly’ (p. 293).

Timberlake’s (2007) position may be in part influenced by his specialisation in Russian. Several papers (e.g., Bertinetto 2001, Kratzer 2004, Popova 2006, Filip 2008) have argued that derivational “perfective” prefixes in Slavic languages reflect a lexical telic-atelic distinction rather than a grammatical perfective-imperfective distinction. Filip (2005, 2008) argues that the Slavic perfective-imperfective distinction is a grammaticisation of the same property which distinguishes telic verbs from atelic ones in Germanic languages.

Bohnemeyer and Swift (2004) examine the interpretation of situations in certain languages (those with “telicity dependent systems”) that can contain clauses with no obligatory perfective/imperfective distinction. Their position is that perfective-like readings
(where the reference time includes the event time) are default for telic verbs and that
imperfective-like readings (where the event time includes the reference time) are default
for atelic verbs. For the moment I'll follow Smith (1997) in calling these two readings
'closed' and 'open', respectively. Bohnemeyer & Swift's examples from the Tarramiut
(Hudson Strait) dialect of Inuktitut show that telic verbs with no aspect get closed readings
(2.54), while atelic verbs get open readings (2.55).

Inuktitut:
(2.54)  a. *Anijuq.*
     ani-juq
     go.out-PAR.3.SG 17
     'He/she went out.' (Bohnemeyer & Swift 2004: 267)

(2.55)  b. *Pisuttuq.*
     pisuk-juq
     walk-PAR.3.SG
     'He/she is walking.' (Bohnemeyer & Swift 2004: 267)

Telic verbs only get open readings if an overt 'ingressive' affix is used (2.56), and atelic
verbs only get closed readings if an overt 'terminative' affix is used (2.57).

Inuktitut:
(2.56)  a. *Anilirtuq.*
     ani-liq-juq
     go.out-ING-PAR.3.SG
     'He/she is (in the process of) going out.'

(2.57)  b. *Pinasugiirtuq.*
     pinasuk-jariiq-juq
     work-TERM-PAR.3.SG
     'He/she finished working.' (Bohnemeyer & Swift 2004: 268)

Bohnemeyer & Swift (2004) also look at languages with no overt aspect, such as German.
I will not outline Bohnemeyer & Swift's formalisation here, but the general idea is that
telic verbs get closed readings as a default, while atelic verbs get open readings.

This section has listed several approaches which have attempted to deal with the
connection between telicity and perfectivity. These have included proposing that aspect
contributes to the telicity of a predicate (Mourelatos 1978, Declerck 1979), using the same
semantic or syntactic mechanism to account for telicity and perfectivity distinctions (de
Swart 1998, Borer 2005), and proposing a default realisation of aspectual values based on

17 The gloss is original to Bohnemeyer and Swift (2003), where PAR = indicative participle.
telicity of the predicate (Bohnemeyer & Swift 2004). In the next section, I will consider a strand of research where the connection between telicity and perfectivity (and also past tense) is particularly strong: language acquisition.

2.3.2 Acquisition

Research on language acquisition has long shown a correlation between tense, aspect, and situation type. Summaries of the field's development are given by Bardovi-Harlig (2000) and by Kempchinsky & Slabakova (2005: 7-8). The primary observation relevant to this section is that language learners use perfective aspect with telic situations before they start using it with atelic situations, and learners use imperfective or progressive aspect with atelic situations before they start using it with telic situations.

Bardovi-Harlig (2000: 193-197) shows that claims regarding the acquisition patterns, called The Aspect Hypothesis, started out as quite strongly asserting that children used morphological tenses in Italian, English, and French to indicate situation type (Antinucci & Miller 1976, Bronckart & Sinclair 1973, Andersen 1991). A later, weaker version is given in Shirai & Andersen (1995), who propose that situation type influences tense/aspect use, such that a higher percentage of telic verbs will be used with past and/or perfective inflectional tense/aspects. More evidence that perfective/past is used first with telic predicates is found in further studies on different languages. Bardovi-Harlig (2000: 399) lists Spanish, Catalan, Dutch, and Japanese. Weist, Wysocka & Witkowska-Stadnik (1984) and Weist, Pawiak & Hoffman (2009) show similar results for Polish. Wagner (2009: 1053) also cites studies on Mandarin (P. Li 1990) and Hebrew (Berman 1983) as supporting the aspect hypothesis.

Shirai and Anderson (1995) show that the telicity-perfectivity/past correlations are actually observed in the input to children's acquisition too, i.e., their caregivers also show a bias towards using achievements and accomplishments in the past or perfective and using activities in the progressive (p. 751). In their study of English learners, they suggest that verbs encoding punctuality, telicity, and a result are the prototype of the past tense, while
verbs encoding atelicity and durativity are the prototype of the progressive. Children thus begin applying the inflectional morphology to its prototypical verbs and then extend it to use with less prototypical verbs. This is further explored in P. Li & Shirai (2000) who propose the frequency of the prototypical verb-aspect combinations in input result in the aspect hypothesis phenomena.

A recent article by Wagner (2009) argues on the basis of experimental evidence that adult L1 speakers also show the same “prototypical groupings” of telic/perfective/past and atelic/imperfective/present. Her experiment involved speakers judging pairs of sentences in terms of which they found “better” or “worse”. She gives evidence that adults find it more difficult to comprehend cross-group combinations than within-group combinations.

These studies on input frequency and both learner and speaker comprehension suggest a strong correlation between situation type and aspect (and also tense). In the next section, I will consider studies that show that telicity and perfectivity can have a similar function in discourse.

2.3.3 Discourse use

It is often asserted that the perfective and imperfective aspect have distinct roles in discourse. Forsyth (1970: 9-10) states that Russian perfectives are used to describe sequences of events, denoting an action which is a “new event, bringing about...a new state of affairs, and thus carrying the narrative forward”. Chvany (1985) confirms the Russian facts in a textual study showing that perfectives used in backgrounding events are used as a particular literary device. Imperfective, Chvany argues, only “indexes” background in the past tense (p. 267). We have seen above (§2.1.2 and §2.3.1) that recent analyses of Slavic aspect argue that the predicates denoted by verbs derived via prefixation are generally both perfective and telic. Hopper (1979) takes up this claim, citing both Forsyth on Russian and

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18 Smith 1997: 92-93 also discusses special contrastive uses of backgrounding perfectives and foregrounding imperfectives in French.
also Reid (1976) on French. Hopper argues that aspect is completely a grounding device, such that perfective is used for foregrounding events in narrative, while imperfective is used for backgrounding. He even uses the terms perfective and imperfective to refer to non-aspectual grounding devices in other languages.

Hopper & Thompson (1980) hypothesise that not only aspect, but a number of other features that cluster together, and which they term collectively transitivity, are used distinctively in discourse grounding. They contend that telicity is one of these features, finding in their sample of three short English texts that 45 out of 51 (85%) of foregrounded predicates were telic, while 22 out of 83 (27%) of backgrounded predicates were telic (p. 286).

More focussed studies on aspect and situation type in English and French have discussed their role in discourse. Kamp (1981) developed the influential Discourse Representation Theory, which applies truth-conditional semantics to discourse, updating as new sentences are interpreted by the hearer. In a series of papers (e.g., Kamp 1979, Kamp & Rohrer 1983), it was shown that both grammatical aspect and situation type play an important role in discourse. Kamp & Rohrer (1983) define the French passé composé in terms of its role in presenting a situation sequential to the reference time set up by the previous discourse, and the French imparfait is defined in terms of presenting a situation which temporally overlaps with the established reference time of the discourse. In addition, stative sentences behave like imparfait in presenting an overlapping situation, while non-stative sentences behave like passé composé in presenting a sequential situation. Dry (1981, 1983; cited in Dowty 1986) also shows that situation type (telicity and stativity) can have this function in English.

Dowty (1986: 48) argues that the use of accomplishments/achievements (i.e., telic events, as he denies a real distinction between accomplishments and achievements) to describe sequential situations results from their semantics as defined by Taylor (1977) and interpreted by Dowty (1979: 166). Accomplishments/achievements are defined thus: if they are true of an interval $I$, they cannot be true of any subinterval of $I$. Dowty shows that,
as a consequence, they cannot be true of a superinterval of I either, since I would then be a subinterval of the superinterval. Thus if an accomplishment were true at interval I and the reference time overlapped with I, either partially, or as a subinterval or superinterval of I, the accomplishment would not be true at the reference time. Because of this, Dowty argues, accomplishments are interpreted as referring to events sequential to the reference time. States and activities (atelic events), on the other hand, can be true of both an interval and its subintervals, and so can be interpreted as referring to events overlapping with the reference time.

Outside of Indo-European, aspect has also been found to background/foreground events in certain Mesoamerican languages ((McArthur 1979, Jones & Jones 1984), Mandarin (C. Li, S. Thompson & R. Thompson 1982), Tamil (Herring 1991), Korean (Lee 1991); cited in Aaron 1999). Aaron (1999) provides an analysis of tense and aspect in three different discourse genres in the Bantu language Obolo. In terms of “aspect”, he examines not only aspect and situation type, but also phasal aspect [aktionsart], finding that perfective, non-stative, and inchoative verbs are used more frequently in foregrounding of narrative discourse types.

I have presented a very basic view of the use of aspect in discourse. There has been much more literature on the topic, showing that the different aspects have different uses than simple backgrounding and foreground (e.g., the testimonial use of imperfectives (Caudal & Roussarie 2005), and that different discourse types show different patterns of aspect use (Aaron 1999, Bardovi-Harlig 2005, Smith 2005). As far as this thesis is concerned, only the very basic uses of aspect in discourse are considered. There are two reasons for this: first, I do not consider very much discourse data, and most of the available data is restricted to impersonal narratives from the oral storytelling tradition; second, the use of aspect in discourse only provides a portion of the focus of the thesis, and so there has not been time to explore this area of research completely. My exploration does however provide evidence that the basic use of aspect in grounding is relevant in SENÇOFEN too: perfectives are used for foregrounding and imperfectives for
backgrounder. I also find a strong correlation between aspect and situation type, such that
telic verbs occur most frequently in the perfective aspect, and such that most imperfective
verbs are atelic. This is shown in §5.3.

2.4 Chapter 2 conclusion

In this chapter, I have called attention to several issues in the study of temporal semantics
and the morphology which affects it. First, I have shown that three interacting but distinct
phenomena have been identified, all of which have been called "aspect" at some point:
**aspect**, which is an inflectional feature encoding the speaker's view of the relationship
between a situation and some reference time; **situation type**, which is a classification of
predicates and is influenced by the semantics of verbs, their arguments, and various other
pieces of clausal information; **aktionsart**, which is reflected by derivational morphology
affecting the lexical semantics of a verb, and thus influencing situation type assignment.
These definitions are not universally held, but they reflect my view of the three categories,
and the way in which I will show these to be distinguished in SENČOTEN.

Each of the three categories has its own internal issues, and also there is much
discussion about how the three relate to each another. In my survey of the literature in
§2.1, I showed that work on aspect finds a fundamental perfective-imperfective distinction
in many of the world's languages, and Salish languages appear to be among that number.
Salish perfective looks similar to perfective in other languages, and Salish imperfective
looks similar to imperfective in other languages. Work on situation type has found that
predicate classes differ from language to language, but that similar patterns recur; one such
pattern is the distinction between culminating and non-culminating accomplishments,
which is found in at least some Salish languages. Regarding aktionsart, although it is not
given much attention in the theoretical literature, we do see that languages can have
derivational morphology which contributes to the situation type of a predicate in a
predictable way. Again, Salish languages are rich in such morphology.
In §2.2, we saw that both the unaccusativity and the control distinction have been argued to reflect event structure differences among predicates. I showed that the unaccusative-unergative distinction in Salish languages relies heavily on morphological and semantic tests, and pointed to arguments that Salish unaccusatives are semantically causative. I also showed that most researchers who have focussed on the Salish "control" distinction have found that it reflects some kind of distinction in event semantics: either one of aspect or one of situation type. Recent work suggests that it reflects a distinction between culminating and non-culminating accomplishments.

In §2.3, I discussed correlations between telicity, a property of situation types, and perfectivity, a value of grammatical aspect. Both indicate some kind of temporal bound, and they are strongly correlated in some languages (i.e., Slavic languages). In languages with no aspect or aspect which does not apply to all verbs, telicity distinctions seem to take on the role of aspect.

The best evidence for a correlation between telicity and perfectivity comes from the area of language acquisition. Several studies have found that both first and second language learners of various languages tend to use perfective aspect with telic verbs and imperfective aspect with atelic verbs first. This research has also found that adult native speakers produce a higher frequency of telic perfectives and atelic imperfectives than the other way around. I lastly looked at literature on aspect and situation type in discourse. Although situation type in discourse has not been subject to the same amount of study as aspect in discourse, it appears that telic verbs can function similarly to perfective verbs, foregrounding events; while atelic verbs can function similarly to imperfective verbs, backgrounding them.

These three sections have set the stage for the main arguments made in this thesis. In chapter 3 I will provide an overview of SENĆOŦEN verb morphology, demonstrating that aspect and aktionsart operate in distinct systems, one being inflectional and one derivational. In chapter 4 I will test the effect of unaccusativity, control, and aktionsart on situation type. I will show that all three have a predictable effect, but that situation type is
also influenced by other factors such as the lexical semantics of the verb and the plurality of the arguments. I will also argue for extending Kiyota’s (2008) five situation types to include positional statives and true punctual achievements. In chapter 5, I will look at correlations between perfectivity and telicity, showing that verbs denoting strong telic situations (Kiyota’s “achievements”) are often rejected in the imperfective aspect and are rarely found with the imperfective aspect in discourse. A frequency count in a SENCOTEN text also finds that the verb types which normally appear in telic situation types are more frequently found in the perfective aspect, while verb types normally appearing in atelic situation types are more frequently found in the imperfective.
Chapter 3  SENCOTEN Verb Morphology

This chapter provides an overview of SENCOTEN verb morphology, with a detailed discussion of the morphology most relevant to the thesis: aspect (perfective, imperfective), valence-changing morphology (various transitivisers and intransitivisers), and aktionsart (resultative, inchoative, persistent). In the course of this discussion, I will argue that aspect differs from the other two in that it is inflectional while they are derivational. Most previous work on Salish word structure has argued for three distinct morphological levels, although these levels are not the same for all accounts (N. Mattina 1996 on Okanagan, Czaykowska-Higgins 1998, Willett 2003). One approach has argued that inflectional and derivational morphology are in the same morphological domain (Black 1996). I find that for the purposes of studying the interaction of aspect with valence-changing morphology and aktionsart it is necessary to distinguish inflection from derivation, and to make further distinctions within derivation. §3.1 outlines SENCOTEN verb morphology other than the three main types to be discussed; §3.2 describes the various shapes of perfective and imperfective aspect and argues for an account of its form based on inflection classes; §3.3 lists each of the valence-changing suffixes and provides some details of my assumptions regarding their function; §3.4 lists the formatives I am calling aktionsart, which affect event structure but not valence; and §3.5 looks at the relationship between aspect, valence-changing morphology, and aktionsart, showing that aspect is a distinct category from the other two, since it is orthogonal to them, it is more inflectional according to typologically driven criteria, and it is formally realised at a different level.

3.1 Outline of verb morphology

A good description of SENCOTEN morphology, most of which is verbal, is given already in Montler (1986). Here I will provide a basic list of those formatives which occur in the examples in this thesis and particularly note where I am adopting a different analysis of their function or different terminology from Montler. Throughout the section, I am adopting an approach similar to that of N. Mattina (1996) or Willett (2003) for other Salish
languages. This approach proposes three layers for the Salish word. The largest, outside layer is the *word or inflectional stem*, which is inserted into a syntactic phrase and includes a lexeme with all of its inflectional morphology in place. The middle layer is the *stem or derivational stem*, which serves as a stem for the inflectional morphology. This includes the root and all derivational morphology. The innermost layer is the *base or lexemic stem*, which includes the root plus lexical suffixes and unproductive derivational morphology, but not productive derivational morphology. In this thesis, I am not making a case for SENČOTEN word structure generally, although the thesis is a step towards comparing word structure in a Central Salish language with the structures argued for the Interior languages Okanagan, Spokane, and Nxa’amxcin.

I begin this section with a discussion of the inflectional features of person agreement (§3.1.1). This is followed by a description of common derivational morphology: plural, diminutive, location, nominalising, and verbalising (§3.1.2). The next section (§3.1.3) covers both lexical suffixes and unproductive derivational morphology. I then provide an outline of the clausal categories of tense, mood, modality, evidentiality, and perfect (§3.1.4), almost all of which are indicated by clitics. The section concludes in §3.1.5 with a discussion of the particles ?i? and ?u?, which are prevalent in discourse.

3.1.1 Person

Salish languages are normally described as *polysynthetic*, containing large amounts of information in affixal material on the syntactic predicate. However, SENČOTEN, which has a very similar morphological inventory to other Central Salish languages, has very little truly inflectional morphology. In inflectional morphology for verbs, I include only aspect and person agreement (which also partially distinguishes number and case).¹⁹ Nouns appear to lack any inflectional morphology other than perhaps possession, while demonstratives inflect for gender, remoteness, and number; neither of these parts of speech

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¹⁹ There is a debate in Salish linguistics on the status of person affixes as pronouns vs. agreement, which will be discussed further at the end of §3.1.1. In this thesis, I treat both subject and object affixes as indicators of agreement.
is considered in this thesis. The reason so few verbal categories are considered inflectional is that only aspect, person agreement, and case agreement have all of the following properties: they are obligatory (each verb must have a value for each category), each verb can only take one value for each category, and they do not add a semantic predicate to their stem. Only lexical verbs take all three of these inflectional features (aspect, person and case agreement), since aspect is restricted to appearing with lexical verbs. Chapter two contained a discussion of the Salish lexical category debate, where it was shown that most scholars now agree that Salish languages at least distinguish verbs and nouns in the lexicon. I am assuming for this thesis that Montler (2003) is correct in proposing lexical categories of auxiliary, adjective, and adverb too for Klallam and Northern Straits.

There is other morphology which is more controversial, in particular valence-changing morphology and tense. I argue in §3.5 that valence-changing morphology is derivational, although it is more like inflectional morphology than some of the other derivation, and some valence-changing morphology is closer to inflection than others. It is obligatory, in the sense that all transitive clauses must have a predicate with one of the four transitivising suffixes. However, it is stackable and some valence-changing morphology significantly affects the semantics of the verb to which it applies. Tense in SENĆOTEN has not been the subject of any focussed research. In literature on other Salish languages, Upriver Halkomelem and St'át’imcets, there has been a debate over whether or not it is obligatory (Wiltschko 2003b, Ritter & Wiltschko 2005, Matthewson 2006). I have not investigated the obligatoriness of tense in SENĆOTEN. The different tense clitics will be outlined in the section on clitics, §3.1.4.

The SENĆOTEN verb can occur as a well-formed word and even a syntactic clause with no overt sign of inflection, as in, e.g., (3.1).

(3.1)  

\[
\begin{array}{l}
\text{KES} \\
\text{qas} \\
\text{go.in.water[PFV]} \\
\text{‘It fell in the water.’} \\
\text{(Fieldwork 2006)}
\end{array}
\]
Lacking any first or second person agreement, a bare root like (3.1) is taken to involve either a third person subject or to act as a command. In (3.1), it is interpreted as a third person. It is also interpreted as perfective, since the basic SENÇOTEN verb stem for roots containing two consonants is used for the perfective aspect (see §3.2). Since it lacks case agreement and a transitivity suffix, it is interpreted as intransitive with an absolutive subject.

Most Salish languages have been described as *split-ergative systems* (Czaykowska-Higgins & Kinkade 1998: 32), where the split is conditioned by different factors in different language sub-groups. In most Central Salish languages, the split is in terms of person and clause type (Montler 1986: 183, Gerdts 1988: 47-50, Jelinek & Demers 1983, Kiyosawa & Gerdts 2010: 29-30). In SENÇOTEN, first and second persons have a clear nominative-accusative pattern, where subjects of intransitives and subjects of transitives are both indicated by the same means. In matrix clauses, they are indicated by a set of clitics, distinguishing first person singular =san (3.2), first person plural =ita (3.3), and second person (singular or plural) =sx* (3.4).

(3.2) QA SEN
\[k^eysan\]
hungry[PFV]=1SG.SBJ
‘I’m hungry.’ (Fieldwork 2006)

(3.3) WÍ LTE
\[x^owy=ita\]
wake.up[PFV]=1PL.SBJ
‘We woke up.’

(3.4) TELÁ,T SW
\[âale?-t=sx^*\]
be.sought-C.TR[PFV]=2SBJ
‘You’re looking for it.’ (15.13)

These are second position clitics, so they appear on the right edge of the first word in the sentence, whether this is a syntactic predicate (3.2-3.4 above), an auxiliary (3.5), or an adverb (3.6).

(3.5) YÁ, SEN DOQ
\[ye?=san\]
\[lok^w\]
go=1SG.SBJ go.home[PFV]
‘I’m going home.’ (Fieldwork 2006)
The second person clitic =sxʷ can be used with a singular or plural subject (Montler 1986: 152). A speaker can specify that they are referring to more than one second person by using the optional enclitic =hela, which appears on the right edge of the syntactic predicate, as in (3.7).

According to Montler (1986: 218-219), this can be used for any second person in the clause, subject, possessive, or object.

First and second person objects are indicated through agreement suffixes on the syntactic predicate. As with the subject clitics, number is distinguished in first person but not second. There are two sets of suffixes for first and second person singular: one is used with the control transitiviser (3.8-3.9) and the other set is used with the other transitivisers (non-control, causative, and effort) and with the relational applicative -nas (3.10-3.11). 20

The first person plural suffix is the same for all transitivisers (3.12-3.13). 21

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20 This split is found throughout Salish languages and the two sets are sometimes called S-objects and M-objects, due to their Proto-Salish form (Montler 1996, Kinkade 1998; cited in Kiyosawa & Gerdts 2010: 32). Proto-Salish *m has developed into [n] in the Straits Salish languages.

21 Note that the [f] of the control transitive suffix and the [sxʷ] of the non-control and causative suffixes delete in the presence of the object suffixes (Montler 1986: 164-166).
The third person in matrix clauses is generally treated as operating in an ergative system, where third person absolutive agreement (for third person subjects of intransitives and objects of transitives) is not overtly expressed (3.14, 3.15), and third person ergative agreement (for third person subjects of transitives) is indicated by a suffix \([-s]\) on the verb (3.15) (Montler 1986: 153). Third person agreement on the verb does not distinguish number or gender.\(^{22}\)

It is possible to indicate subject plurality of third persons by using the plural form of the verb or auxiliary, as seen with the auxiliary in (3.16).

Sex-based gender, and to some degree number, of third persons may be indicated when there is a DP, since SENCOTEN determiners and demonstratives have distinct feminine

\(^{22}\)Throughout the thesis, I provide the sentences as they were translated by the speakers I worked with, or with a translation appropriate to the scene they describe (for the video descriptions). That does not mean it is the only possible translation. When a verb with third person agreement appears with no overt DP, it can usually be translated with ‘it’, ‘he’, ‘she’, or ‘they’, constrained of course by the lexical semantics of the verb (e.g., in the following two examples the subject referent would not be translated ‘it’).
singular and non-feminine singular forms, some of which are obligatory and some not
(Montler 1986: 226).

(3.17) a. ÍY, TFE NE NENE
   ?əŋ təə nə nənə
   good GNRL.DET 1SG.POSS offspring
   'My child is good.' (7.13a) [daughter or son]

b. DEQIST SEN TFE NE NENE
   təkʷ-ŋ-ist=son əə nə nənə
   go/home-REL-CAUS[PFV]=1SG.SBJ FEM.DET 1SG.POSS offspring
   'I took my daughter home.' (1.9) [can only be daughter]

The determiner/demonstrative system of Straits Salish languages is complex, and will not
be addressed in this thesis. See Montler (1986: 224-240) and Montler (2007) for
descriptions of SENĆOŦEN and Klallam.

The Straits Salish languages, including SENĆOŦEN, contain several types of
subordinate clause, described by Demers & Jelinek (1982, 1984), Montler (1986, 1993),
take the same sets of object suffixes as matrix clauses, but subjects are indicated in
different ways. Some subordinate clauses take a special set of subordinate subject
agreement suffixes, with separate forms for first person singular and plural, second person,
and third person. In subordinate clauses, the third person patterns with first and second as a
nominative-accusative system. A second person subordinate agreement suffix is given in
(3.18).

(3.18) IEŅ LTSE SE, Ė ĖSE ĖSE MO,EK
   ?iŋ=Ho=soʔ ?o kʷsə čəsə maʔaqʷ
   eat[PFV]=1PL.SBJ=FUT OBL REM.DET two duck
   I, Ė ENÁ,EW SE, TÁCEL
   ?ʔ?=kʷ=oneʔ-oxʷ=soʔ tečəl
   COM=COMP=come-2SUB.SBJ[PFV]=FUT arrive
   'We’re going to be eating the two ducks when you arrive.' (13.4)

The subordinate agreement suffixes appear very rarely in my fieldwork recordings.

In another type of subordinate clause introduced by the complementiser kʷ,
subjects are indicated by suffixes identical to the possessive clitics and/or suffixes of DPs.
Again, all persons operate in a nominative-accusative system for these subordinate clauses,
so the possessives are used for subjects of transitives and intransitives. Again, only first
person distinguishes number. The first person singular and second person are clitics which attach to the complementiser $k^=$ (3.19, 3.20) and the first person plural and third person are suffixes which attach to the subordinate clause predicate (3.21-3.22).

(3.19) $\text{XE}N\text{ SEN SE, } \text{CNET} \quad \text{YÁ, DOQ}$

\begin{align*}
\text{xen}=\text{son}=\text{so} & \quad k^=\text{n}=\text{s} & \text{ye} & \quad \text{la}\text{k}\text{=} \\
\text{fast}=\text{1SG.SBJ}=\text{FUT} & & \text{go} & \quad \text{go.} \text{home}[\text{PFV}]
\end{align*}

'I went home quickly.'

(3.20) $\text{U, ČÁ}C\text{EN}E\text{CEL ĖTE} \quad \text{I, NÚ, NÁ}Č\text{TEL ĖTE}$

\begin{align*}
?u?=\text{čeč}=\text{o}-\text{n}=\text{k}=\text{al}=\text{H} & \quad ?u?=\text{n}=\text{ew} \text{neč}-\text{t}=\text{ol}=\text{H} & \\
\text{CONTR}=\text{friend-NC.TR}[\text{PFV}] & \quad \text{COM}=\text{get.paid-C.TR}[\text{PFV}]-\text{C.RECP}=\text{1PL.SBJ}
\end{align*}

\begin{align*}
\text{E} & \quad \text{T} & \quad \text{ČA ĖTE} \\
?u?=k^=s & \quad \text{t} & \quad \text{è} & \quad \text{t}
\end{align*}

\begin{align*}
\text{OBL}=\text{COMP}=\text{NMLZ} \quad \text{still} & \quad \text{work}[\text{PFV}]-\text{1PL.POSS}
\end{align*}

'We’re friends, but we still pay each other when we do work for each other.'

(24.29)

(3.21) $\text{STÁN } \text{CEN,S} \quad \text{QENNEW}?$

\begin{align*}
\text{ste}= & \quad \text{k}=\text{al}=\text{s} & \quad \text{k}=\text{an}=\text{n}=\text{x} & \\
\text{what} & \quad \text{COMP}=\text{2POSS}=\text{NMLZ} & \quad \text{see-NC.TR}[\text{PFV}]
\end{align*}

'What did you see?' (13.57b)

(3.22) $\text{WITEN } \text{ČS} \quad \text{SEKS}$

\begin{align*}
\text{x} & \quad \text{it}= & \quad \text{k}=\text{s} & \quad \text{s}=\text{q}=\text{s} \\
\text{jump}[\text{PFV}] & \quad \text{COMP}=\text{NMLZ} & \quad \text{get.out-3POSS}
\end{align*}

'It jumped out.' (11V.146a)

I will not go into any detail regarding the different types of subordinate clauses and when they are used. The most common ones in my fieldwork recordings are the nominalised type shown in (3.19-3.22), so many examples of these will appear throughout the thesis.

There has been considerable debate surrounding the status of person affixes and clitics in Salish languages. Jelinek (1993: 162, 1995, 1998) argued that Lummi is a pronominal argument language, in which all of the person affixes and clitics are pronouns and these pronouns are the only syntactic arguments (all DPs being optional adjuncts).

Others have argued against this view, particularly H. Davis (H. Davis 2005, H. Davis & Matthewson 2009), who treats them as agreement markers. For this thesis, I have used the term agreement to refer to the person affixes and clitics above.
3.1.2 Common derivational morphology

This section lists the common derivational morphology of SENCOFEN verbs. I will not discuss the valence-changing suffixes or the aktionsart morphology, as these are given their own sections in §3.3 and §3.4. As in §3.1 generally, my aim is not to provide a thorough morphological description of SENCOFEN (this has already been done by Montler (1986)), but it is to familiarise the reader with SENCOFEN verbs before going in-depth into the aspect, valence-changing, and aktionsart morphology which is at the heart of the thesis. I restrict myself to morphology which commonly appears in examples in this thesis: the diminutive, plural, location, nominalising, and verbalising morphology.

The diminutive and plural are both indicated through non-concatenative material, and they both apply to verbs and nouns. The plural morphology at least also applies to adjectives. The form of the the diminutive is regular: it is generally indicated by CV~ reduplication plus a glottal stop infix which occurs following the stressed vowel (Montler 1986: 98). Since CV~ reduplication and glottal stop infixation are two of the exponents of the imperfective, diminutives resemble some imperfectives formally, although not necessarily semantically. The diminutive in (3.23) is nominal and the diminutive in (3.24) is verbal.

(3.23) HELISET TFE ČEČI,CEN,
holi-sat țo ě~či<?>kôn
alive-INCh[PFV] GNRL.DET DIM~chicken<DIM>
'The chick came to life; the chick is coming to life.' (1.40, 8.31, 18.12) (ćokôn 'chicken')

23 Montler (1986) lists this as C~ reduplication. Since all of his examples are trisyllabic, stress is penultimate, and unstressed full vowels regularly reduce to schwa (Leonard 2007: 7), the reduplicant could be analysed as of the shape CV, where the schwa following C1 is a reduced copy of the full vowel of the stem (see Turner (2007) on imperfective and resultative forms). Montler (1986) argues instead that this is an epenthetic schwa due to a constraint against two contiguous identical consonants (p. 30).

24 The reduplication deriving the word for 'chicken' looks more like plural reduplication, since it also involves the use of the full vowel [i]. However, the translation given was always singular. This unusual diminutive thus requires further investigation.
The small baby is sleeping.

For Halkomelem, Suttles (2004: 138) argues that all diminutives are imperfective, where diminutive visibly includes formal indications of both imperfective and diminutive, as in double reduplication. Montler (1986: 98-101), in contrast, claims that diminutives can be perfective (‘non-actual’) or imperfective (‘actual’) in SENĆOTEN. However, he does not provide any examples of verbal diminutives which are not also imperfective, and I have found none among my recordings. In addition, the glottal stop associated with diminutive is not found in (3.24), although it does have an imperfective form. It may be that the glottal stop Montler (1986) associated with diminutive is actually the imperfective infix, which is used with some full vowel stems. Very few SENĆOTEN diminutives have been recorded so far in linguistic fieldwork, so it will be necessary to gather a larger list before drawing any further conclusions regarding its co-occurrence or overlap with aspect.

Plurality is another feature indicated on both nouns and verbs. Bar-el (2003b: 6), in a paper on the semantics of Skwxwú7mesh plurals, argues that the plural indicates plurality of events when used with verbs, often yielding an iterative or habitual interpretation; and Urbanczyk (2004) discusses this and other uses of plurality in Central Salish languages. In the SENĆOTEN examples presented here, only plurality of subjects is indicated. The plural is indicated by one of a number of different non-concatenative means. It appears that at least two distinct plural formatives must be at work (Kiyota 2003, Leonard 2010). The extent to which they are phonologically predictable is not yet fully understood. Montler (1986: 101-109) lists four basic plural formatives: Ci~ reduplication (3.25), Cal~ reduplication (3.26), infixation of <al> (3.26, 3.27), and CVC~ reduplication (3.28).25

25 The [i] of the Ci~ reduplication moves to the stressed syllable (as seen in 3.26).
(3.25) TETINEWS
\(\text{to}\sim\text{təŋəx}\sim\text{s}\)
\(\text{PL}\sim\text{land-3POSS}\)
'They’re his lands.' (Montler 1986: 103) (toŋəx 'land')

(3.26) ÇELEÇI,WENTEL, ČTE ÇELEČIȘU
\(\text{k̕ə\text{o}}\sim\text{ŋət-ωnc-t} \text{o}\)
\(\text{DIM}\sim\text{<PL>kišu}\)
'The guinea pigs are fighting.' (k̕iωnt̕aŋ 'fighting'; kakšu 'little pig')

(3.27) ÁLTI TELĂCLE TTE EN ŚCĂLEČE
\(\text{PROX.AUX=PRS.DIR.EV;CONTIN}\)
\(\text{<PL>arrive[PFV]}\)
'Your friends are arriving.' (Turner 2007: 68) (tečăl 'arrive'; sčečo 'friend')

(3.28) I, NENU, I, QEN,TES TE ŚLENŁANI
\(\text{CONTIN-very CONTIN-see-C.TR}\text{IPFV FEM.DET PL~woman}\)
'He was looking at the women.' (5.23c) (ślenę 'woman')

Note that plural is used optionally in SENCOTEN: a form with no plural
morphology can still be used to indicate an event with more than one participant, or a noun
referring to more than one entity. Example (3.29) shows a singular use of the noun
meaning 'egg(s)', and (3.30) shows a plural use.

(3.29) BELY TTE XEŢXOLES
\(\text{hatch[PFV]}\)
'\text{The egg hatched.}'

(3.30) QSET TTE XEŢXOLES
\(\text{get.counted-C.TR}\text{IPFV}\)
'\text{Count the eggs.}'

The only time plural morphology might be obligatory is with adjectives in complex
predicate nominals (nominal clauses acting as syntactic predicates) and DPs, where the
adjective has to agree in number with the noun it modifies. Montler (1986: 130) gives
examples from Klallam:

(3.31) a. čəq=\text{cxv}=\text{hay}
\(\text{big\PL=2BJ=2PL}\)
'swəwə́γə?
‘You are big men.’

b. *čəq=\text{cxv}=\text{hay}
\(\text{big=2BJ=2PL}\)
'swəwə́γə?
‘You are big men.’

I will address this further in §4.1, as it is used to argue for a distinct lexical class of
adjectives.
Another derivational formative found throughout the examples in my thesis is the \( x^- \) location prefix. Montler (1986) calls this prefix 'locative', but it does not indicate locative case. Rather it is used “when the predicate involves a particular location” (p. 45), so I am choosing to refer to it as the *location* prefix, and glossing it LOCAT. Sometimes it involves situations directed at someone's face or other body part (3.32), and it occurs in my fieldwork recordings in several sentences describing a door being open or closed (3.33).

(3.32)  
\[
\text{WMECTITES} \\
\text{x^-mak^\-\theta-i-t-as} \\
\text{LOCAT-get.kissed-MOUTH-CONNEC-C.TR\{PFV\}-3ERG} \\
\text{‘She kissed him; He kissed her.’ (Fieldwork 2006)}
\]

(3.33)  
\[
\text{WT\k>E\T\Es} \\
x^\text{-tq-\theta-as} \\
\text{LOCAT-close-C.TR\{PFV\}-3ERG GNRL.DET door} \\
\text{‘He/she closed the door.’ (18.30a, 23.129)}
\]

Its contribution to the verb meaning is not always clear to me.

A very common prefix in SENÇOTEN is the nominaliser \( s^- \). As in many other Salish languages, it is used both to nominalise verbs and to nominalise clauses (H. Davis 1997: 65). As a clause nominaliser, it behaves more like a clitic, phonologically attaching sometimes to the complementiser or negative predicate, which introduces the clause, and sometimes to the nominalised clause predicate. As a verbal nominaliser, it refers to an entity and appears to be a prefix, since it is always phonologically attached to the verb it nominalises. Example (3.34) shows both the clausal nominaliser (introducing the ‘when’ clause) and the verbal nominaliser (deriving the word ‘food”).

(3.34)  
\[
\text{QA SEN} \\
\text{CNES} \\
\text{QEN,NEW} \\
\text{TFE} \\
\text{S,\text{\textit{\textsc{HE\textsc{N}}}}} \\
\text{k^\text{\textit{\textsc{ey=sn}}} k^\text{\textit{\textsc{=n}}} n^\text{\textsc{=s}}} \\
\text{hungry\{PFV\}=1SG.SBJ COMP=1SG.POSS=NMLZ see-NC.TR\{PFV\} GNRL.DET NMLZ-eat} \\
\text{‘I got hungry when I saw the food.’ (Fieldwork 2006)}
\]

When the nominaliser is followed by the location prefix, it surfaces as [s], sometimes through coalescence, where neither /s/ nor /x^-/ surface, as in (3.35).

(3.35)  
\[
\text{ÁJET SEN} \\
\text{TFE} \\
\text{Š\text{\textsc{QENO\textsc{S}}}E\text{\textsc{N}}} \\
\text{\textsc{te-\textit{\textsc{at=sn}}} \text{t\textit{\textsc{=o}}} \text{\footnotesize{\textsc{s-k\textsc{=on-as-\eta}}}}} \\
\text{wipe-C.TR\{PFV\}=1SG.SBJ GNRL.DET NMLZ;LOCAT-see-FACE-MID} \\
\text{‘I’m wiping the window/mirror; I wiped the window/mirror; I’m going to wipe the window/mirror.’ (15.2, 23.1)}
\]
It may seem inappropriate that I have included the nominaliser in a section on verb morphology. Both the deverbal nominaliser and the clausal nominaliser are relevant, however, to understanding SENCOTEN aspect. Both nominalised verbs and nominalised clauses appear with both perfective and imperfective shapes. The differences between nominalised verbs and nominalised clauses with respect to aspect are discussed in §5.2, where I argue that the existence of nominalised verbs with both perfective and imperfective stem shapes does not provide counter-evidence for my claim that aspect applies only to verbs.

Two other derivational prefixes found in my fieldwork data are *-partake, and *-which Montler (1986: 148) calls have. These can both be used to derive verbs (3.36, 3.37). In many of my examples the 'have' prefix seems to indicate that an intransitive verb has an agent subject (3.38).

(3.36) SQÁ  ĆNES  ŁCOFI
sk⁴ey  kʰ=ŋ=ŋs  t-kafi
cannot  COMP=1SG.POSS=NMLZ  PARTAKE-coffee[PFV]
'I can't have coffee.'  (13.41d)

(3.37) ć-telə=san
HAVE-money[PFV]=1SG.SBJ
'I have some money.'  (Montler 1986: 48)

(3.38) ĆPIT SEN
ć-pit=san
HAVE-recognise[PFV]=1SG.SBJ
'Oh! I recognise (that person).’  (34.35)

I am not sure what the connection is between 'having' something and being an agent.

Perhaps there are two homophous prefixes *-. This requires further research.

Another suffix which can be used to derive verbs is the -il directional suffix

(3.39) U ÌY,ILEN SE
ʔuʔ=ʔa'y-il-ŋ=sŋ?
CONTR=good-DIRECT-MID[PFV]=FUT
'The weather's going to get better.'  (Fieldwork 2006)

It is also used with verbs indicating directional motion, productively in (3.40) and with a bound root in (3.41).
Then she went in.

My friend has almost arrived.

I quickly reached the finish line.

However, the suffix is not used with all verbs of directed motion. For example, it is not used with the verb tas ‘reach, get near, arrive’:

The directional suffix appears to be limited in its use to certain bases.

I would like to conclude this section with two points of clarification. First, I have not listed all of the derivational morphology active or historically relevant to SENC\(\text{O}\)\(\text{F}\)\(\text{E}\)\(\text{N}\). I have provided a brief description of the common elements found in my fieldwork examples. Second, throughout the thesis I do not always gloss the derivational morphology shown in this chapter. I do not gloss it when it is irrelevant to the point an example is illustrating and where it might distract from the more relevant morphology.

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3.1.3 Lexical suffixes

Lexical suffixes, found throughout the Salish family and in some neighbouring Wakashan, Chemakuan, and Tsimshianic languages of the Pacific Northwest (Boas 1947, Czaykowska-Higgins & Kinkade 1998: 25-26, Mithun 1999: 48), are suffixes with “a substantive, root-like meaning” (Montler 1986: 64); that is, they share formal properties of suffixes and semantic properties of content words. Lexical suffixes are always bound. Montler (1986) lists 58 lexical suffixes in SENC\(\text{O}\)\(\text{F}\)\(\text{E}\)\(\text{N}\) (p. 65), with meanings ranging from body parts/locations like ‘arm, side’ or ‘eye’ to classes of object like ‘wood’ or ‘fire’, to more abstract notions like ‘appearance’ or ‘times’.

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26 T. Mattina (2008) also discusses the drawbacks of overglossing Salish languages.
Although lexical suffixes are found with many nouns, they are also found in verbs, as the following examples show. In most of the literature on Salish languages, the root-lexical suffix boundary is indicated by the equals sign =, but since I am following more general conventions (and the Leipzig Glossing Rules) in using = to indicate clitics, I use a regular hyphen for lexical suffixes, as with other suffixes, although I use small caps to indicate that these are suffixes and not root material. The suffix glossed CONNEC is a connector, a string of phonemes often used between roots and lexical suffixes (Pidgeon 1970: 18), the purpose of which is unknown. The following two examples contain lexical suffixes (in bold), joined to their bases with connectors.

(3.43) KBELÁČT
q̃̄-ol-əč-t
gather-CONNEC-WAIST-C.TR[PFV]
‘Bundle them (sticks) up.’ (Montler 1986: 72)

(3.44) WKEL, KEL, Ą, WEN,
xʷ=qʷəl=qʷəl=ə-wən
LOCAT-CHAR~talk-CONNEC-MIND[PFV]
‘He’s thinking.’ (Montler 1986: 75)

I am inclined to treat lexical suffixes as derivational, since their semantic contribution to verbs is idiosyncratic: compare the concrete use of the lexical suffix ‘eye’ in (3.45) and the more tangential use in (3.46).

(3.45) JÁN U, TEOLEŠ TÉ Katie
cėn ꞌuʔ=ǐŋ-pə-ales əo Katie
really CONTR=close-EYE[PFV] FEM.DET Katie
‘Katie closed her eyes.’

(3.46) NEJOLEŠ
nəč-ales
different-eye
‘multi-coloured’ (Montler 1986: 77)

In addition, they provide a base for further derivational morphology, such as valence-changing suffixes, as shown in (3.47). Compare this to (3.48), a verb with the same root but no lexical suffix.

(3.47) EN TÍ, ĆEN,S XELOSTEN
ʔən ꞌiʔ ꞌən=ṣ x̂̂=t=əN
2.POSS want COMP.2.POSS=NMLZ write-face-C.TR-PASS[PFV]
‘Do you want to get your picture taken?’
However, Czaykowska-Higgins (1998) argues that lexical suffixes differ in that some are referential (they take on an internal argument role) and some are non-referential. In her model of the Moses-Columbian word, she distinguishes lexical from morphosyntactic morphology, rather than derivation and inflection. It may be that some SENCOTEN lexical suffixes are more derivational than others.

In work on lexical suffixes in Salish languages, there has generally been a debate regarding whether or not they involve noun incorporation (Czaykowska-Higgins & Kinkade 1998: 26). Lexical suffixes, especially if they are incorporated nouns (normally objects), could have an affect on situation and grammatical aspect use. However, I have not investigated their interaction with predicate classification or aspect for this thesis.

3.1.4 Tense, modality, evidentiality, and perfect

In SENCOTEN, aspect is a distinct feature from tense. While aspect is obligatory and indicated by changes in stem shape, tense is grammatically optional and indicated by the use of second position clitics. In addition to the tense clitics and the subject agreement clitics discussed in §3.1.1, SENCOTEN has several other second position clitics (called post-predicate particles in Montler (1986)). Most of these appear to have modal and/or evidential meaning. In addition, Kiyota (2008) argues that SENCOTEN has a perfect. This section goes through tense, mood, modality, evidentiality, and the perfect.

SENCOTEN has tense clitics to indicate past (3.49) and future (3.50) events.

(3.49)  KÁWET LO, SEN, TE SŁÁNÌ, $	heta_\alpha$ slenì?
get.paid-C.TR[PFV]=PST=1SG.SBJ FEM.DET woman
'I was paying the lady.' (8.24a)

(3.50)  JÁ, NET SEN SE, TFE NE PUÇ
čen-ot=son=sə?
get.straightened-C.TR[PFV]=1SG.SBJ=FUT GNRL.DET 1SG.POSS book
'I'm going to correct/straighten my book(s).’ (7.22)
Both past and future tense clitics can be used on nominals in SENCOTEN (Montler 1986: 210, 212). For example, the past clitic can be used to describe a person who has died.

Since I am focusing on verbs, I will not consider this further here.

The tense clitics are optional (Montler 1986: 210): out of context perfective sentences, discussed during elicitation, can often be translated with past, present, or future reference.

(3.51) DILEM TE Janet
lilom θə Janet
sing[PFV] FEM.DET Janet
'Janet sang; Janet is going to sing; Janet sang a song; Janet is singing.' (Turner 2007: 66; 18.3, 45.18)

The optionality is especially seen regarding past tense, where, as Kiyota (2008) has shown, perfective telic verbs with no tense or temporal phrases are regularly interpreted as occurring in the past.

(3.52) WEÇET SEN TE NE SCÁÇE
xʷəčə³-tə=šən ə nə sččə wake.up-C.TR=PFV=1SG.SBJ FEM.DET 1SG.POSS friend
'I woke up my friend.'

In addition, setting up a past reference time in elicitation contexts yields sentences with optional past tense. (3.53b) is a possible answer for (3.53a), and the past tense clitic is optional.

(3.53) a. STON,ET SW LE OÇE E ζŠE TÀ,TES TINTEN
stag<=>=tə=šəx³=lo?=ʔačə ʔə kʷəsə teʔəs tinton
do.what<IPVF>=2SBJ=REQ OBL REM.DET eight ring

E ζSÌÁ ČELAÇEL?
ʔə kʷsųʔe ċəlɛqəʔ OBL REM.DET yesterday
'What were you doing at 8:00 yesterday?'

b. LÂLET (LE,) SEN TFE NE TA,EÇEŁ
le=1a-t(=1o)=šən tə nə teʔəkʷəl
IPFV=get.fixed-C.TR(=PST)=1SG.SBJ GNRL.DET 1SG.POSS race.canoe
'I was fixing my canoe.' (19.28c)

I have transcribed a few SENCOTEN conversations and comments that the speakers made in the course of our fieldwork together. The tense clitics do not appear.
I do not have enough data to draw any conclusions regarding the use of tense in conversation, but I do believe this provides some more supporting evidence that tense is optional in SENĆOTEN.

The optionality of tense in Salish languages has been under debate, discussed in papers on Upriver Halkomelem (Wiltschko 2003b, Ritter & Wiltschko 2005) and Stát’ímceels (Matthewson 2006). Two crucial differences between SENĆOTEN and these two languages is that SENĆOTEN has an overt past tense clitic and that SENĆOTEN sentences can be interpreted in the future without the future tense. Nonetheless, in the SENĆOTEN text appearing in Montler (1986) tense appears to be obligatory. The main narrative events appear with no tense, but in the character’s speech future time reference is always accompanied by the future tense clitic (3.56) or the auxiliary ye? (see next paragraph), and past time reference by the past tense clitic.

Temporal interpretation in SENĆOTEN can also be influenced by a number of other factors. The auxiliary ye? ‘go’ normally implies future time reference if there is no past tense in the clause.

(3.54) EWES HIF I CIL TTE SPÁKEN
?iwa=s híθ ?i?=k*íl tθ speʔqəŋ
NEG=NMLZ long.time COM=appear[PFV] GNRL.DET flower
‘It won’t be long and the flowers will show.’ (17.96)

(3.55) NIL CE TI,Á SWI,WLES TES OX
nil=kʷəʔ tθe swiʔləs təs ?əxʷ
3PRED=PST.DIR.EV PROX.DEM young.man get.near[PFV] go.towards
E TTE CE^K PUT
θ demo ʔəq put
OBL GNRL.DET big boat
‘This young man got there on the big boat.’ (23.46)

(3.56) "ʔu?=mən=sa=stas"  
CONTR=all=FUT=2SBJ 1SG.POSS=spouse
‘You’ll both be my wives.’” (Montler 1986: 252, 260)

(3.57) ye?=lə=son  k*čə-sə  
go=PST=1SG.SBJ make.spiritually.strong-C.TR;2OBJ[PFV]
‘I was going to make you strong.’” (Montler 1986: 255, 260)

Temporal interpretation in SENĆOTEN can also be influenced by a number of other factors. The auxiliary ye? ‘go’ normally implies future time reference if there is no past tense in the clause.

(3.58) YÁ, SEN ETOTW TTE KA^K
ye?=son ?staxʷ tθo qeq
GO=1SG.SBJ go.to.sleep-CAUS[PFV] GNRL.DET baby
‘I’m gonna put the baby to sleep.’ (8.51)
This may be in the middle of a grammaticalisation process into an indicator of future tense, or a modal similar to the English 'going to' (Copley 2002), which normally involves future time reference. It is only used with non-stative verbs (as far as I have seen), and it can occur with the past tense, in which case it retains its lexical meaning 'go'.

(3.59) YÁ, LE, SEN KEWÁNEK E TLÁ ÁNEC
go=PST=1SG.SBJ get.paid-Actor[PFV] OBL PROX.DEM today
'I went out and paid (someone/people) today.' (7.25a)

The deictic system can also be used to imply temporal reference. In (3.60), the remote demonstrative indicates that it was a Wednesday in the past, while the proximal demonstrative in (3.61) refers to the coming Wednesday ('this Wednesday').

(3.60) ČKÁU SEN E ČSIÁ SŁIWS
č=dew=son ?e k*si?e stix*s
AGENT-get.paid[PFV]=1SG.SBJ OBL REM.DEM Wednesday
'I got paid last Wednesday.' (1.14)

(3.61) ČKÁU SEN E TLÁ SŁIWS
č=dew=son ?e ti?e stix*s
AGENT-get.paid[PFV]=1SG.SBJ OBL PROX.DEM Wednesday
'I get paid this Wednesday.' (1.15)

At least one suffix and two second position clitics indicate notions expressed by moods in Indo-European languages. The first is the desiderative suffix -elho (Montler 1986: 60). (3.62) was uttered by one of the speakers when I offered him some coffee. I do not know why there is an extra schwa in the suffix in (3.62). This is perhaps due to a dialect difference.

(3.62) EWE. WU,Á SEN SE ĖŁCOFIÁLENEN
?aw. x*aw=e=son=sa? 4-kafi-elho
NEG not.yet=1SG.SBJ=FUT PARTAKE-coffee-DESID[PFV]
'No. I don't feel like coffee yet.' (5.0k, 13.41a)

This suffix has some relevance to chapter 4, as the Halkomelem cognate of the suffix is employed by Gerdts (1988, 1991, and subsequent papers) in her tests for unergativity.

Next there is the second position clitic used for yes/no questions =?o (Montler 1986: 202). In the pronunciation of the speakers I worked with, the schwa often lowered to [a]; hence the SENCOTEN orthographic representation with 'O'.

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Lastly, there is a suffix used for strong commands, ơ; (Montler 1986: 203).

Montler (1986) does not call it imperative, and I also believe the term command is better, mostly because it is not an obligatory inflection on the verb. Commands can be expressed without this clitic. This is shown in chapter 5, when I look at the use of aspect in commands.

SENÇOTEN modality and evidentiality have not yet been investigated in detail, but it appears that most of the other second position clitics have modal and/or evidential meanings. Most of these clitics are described briefly by Montler (1986). Jelinek (1987) provides a list of likely modals in Samish, and Galloway (1990) also refers to modality in his description of Samish clitics. In addition, some cognate clitics are described by Watanabe (2003) for Comox-Sliammon and for Musqueam Halkomelem by Suttles (2004). Here I will list the common modal/evidential clitics in SENÇOTEN, going into a bit more detail for two clitics I have investigated more deeply than the others.

The three modals listed by Jelinek (1987), each of which is the same in SENÇOTEN as in Samish, are not found in my fieldwork recordings, so they will not be considered here. More common modals in my examples include =?al, which Montler (1986: 219) calls limiting. He notes that it indicates "nothing more than what is said is implied" (p. 219), thereby limiting the amount of information the speaker intends to convey. It is translated often as 'just'. The following sentence was used to describe a video where a woman is sitting in a chair with a drink.
Another common clitic is =?a?e, which Montler (1986: 217) calls 'request information'. He states that it adds to a question "the implication that the speaker is not in fact in possession of the information requested".

It also looks like it's part of a clitic Montler (1986: 222) calls presumptive, which seems to be an epistemic modal, often translated with 'must' and 'I guess'.

Montler (1986) lists this clitic as =wə?e, but I find it usually has the form in (3.67) [wə?e].

A third clitic is =kʷočə, which Montler (1986: 217) calls 'explanative'. He notes that it does not co-occur with the yes/no clitic =?ə and that it is used in both questions and answers.

This is used with many wh-questions in my recordings.

Two clitics which I have investigated in a bit more detail are =tə and =kʷə?. These clitics appear to be evidentials. The evidential nature of the clitics is found in the description of cognate clitics in Sliammon (Watanabe 2003). Watanabe (2003: 528) claims that the Sliammon clitic =tə 'observed' indicates "that the predication is based on the
speaker's direct observation” and that “one must be seeing the event described at the time of predication.”

Sliammon:

(3.69)  čə já=ta
        rain=OBSR
'I see that' it started to rain.’ (Watanabe 2003: 528)  
This contrasts with =k temporarily ‘direct evidence’, which also indicates that the speaker has directly observed the event, but does not require the event to be currently seen.

Sliammon:

(3.70)  čə já=k*a
        rain=DIR.EV
'It started to rain.’ (one would say this, for example, if he has just come from outside.) (Watanabe 2003: 520)

I hypothesise that SENČOTEN =ta and =k are distinguished on similar grounds. With =ta, as with Sliammon =ta, the situation itself is often being observed at the speech time.

(3.71)  LO,E TE    JETEN,
        la?o=to   čə já
GNRL.AUX=PRS.DIR.EV  crawl\IPFV
'He/she’s crawling.' (28.1)

[Speaker comment: "if he was crawling around on the floor over there"]

It is also sufficient for the results of the situation to be observed at the speech time.

(3.72)  XTIT SEN TE    TFE    COFI
        xti-t=so=to  tò  kafí
get.prepared-C.TR[PFV]=1SG.SBJ=PRS.DIR.EV  GNRL.DET  coffee
'I just made the coffee.' (24.43)

(3.73)  LO,E SEN TE    XTIT    TFE    COFI
        la?o=so=to  xti-t  tò  kafí
GNRL.AUX=1SG.SBJ=PRS.DIR.EV  get.prepared-C.TR[PFV]  GNRL.DET  coffee

E   čə já  ČEĻAKEĻ
?o  k'si?e  čaļeqap
OBL  REM.DEM  yesterday
'It was yesterday when I made that coffee.' (24.38)

[Note: the coffee is right there when I say this]

In addition, there are some examples with future time reference. In these examples, it appears that there is present observation of some preliminary evidence that the event will occur, as in for example (3.74), where the speaker knows that his/her friend will arrive because he/she can hear the friend coming.
(3.74) TÁÇEL TE I,
têčêl=ta=ʔi?
arrive[PFV]=PRS.DIR.EV=CONTIN
'Ve arrived (i.e., I can hear her coming).’ (10V.83b)

Due to its observed distribution, I have glossed the clitic =ta as PRESENT DIRECT EVIDENTIAL. This captures the requirement that the speaker has direct evidence for their knowledge of the situation, and that this evidence is observable at the speech time (the evidential has present time reference).

The clitic =ta is not found in previous work on SENĆOŦEN. However, Montler (1986: 235-6) briefly discusses the “suffix” tiʔ, co-occurring with the deictic auxiliaries.

Montler (1986: 236) suggests that [tiʔ] may be a post-predicate particle (i.e., clitic), but does not have enough examples to draw any conclusions on its morphological status or its meaning. I have also found many examples with tiʔ. I suggest that this form is a coalescence of =ta and the continuing prefix ?iʔ- discussed in §3.1.5.

Contrasting with =ta is the clitic =kʷʔ. This appears to be similar to Sliammon =kʷa. This clitic has received more attention in the previous literature than =ta. Montler (1986: 215) calls =kʷʔ ‘informative’, and says it is “used when the speaker is offering the propositional content of the sentence as new or particularly salient information to the addressee”, but cautions that this definition is only a first approximation. He arrives at this definition based on speaker comments that the sentences with =kʷʔ would be used “if you asked me” and “if I were telling you”. This is consistent with an extension of Watanabe’s characterisation of Sliammon =kʷa: the clitic is mostly used when the speaker has observed a situation but the listener has not.

(3.76) LEM;FEN SEN ʔE,
təmʔaŋ=son=kʷʔ?
pick.fruit[PFV]=1SG.SBJ=PST.DIR.EV
'Ve were picking strawberries!’ (11V.164i)
Answer to question “Where were you?” (in natural conversation)
"Her back is hurting!" (V2.11a) 
Said by one speaker when the other speaker complained that the woman in the video was not smiling.

=k*ə? is used frequently in video descriptions. This is probably because I asked the speakers to describe what they saw, and also possibly because one speaker could often see more clearly than the other one, and so was passing on his knowledge to the speaker who had not been able to see the evidence for himself.

"Someone's frying something." (V2.28a) 
Uttered while viewing butter frying in a pan.

"...then she went in." (V2.178, 10V.75a)

All of the examples so far have been declaratives. The clitic =k*ə? is also used often in questions, in which case it is the addressee, and not the speaker, who has knowledge (or is presumed to have knowledge).

"Where's Claire?" (5.25q)

"Did you forget it?" (43.2)

There is one example of =tə in a question as well. It uses the general deictic auxiliary laʔə.

"Did you learn? Did you get smart?" (24.57)

Given Montler's (1986) definition of =k*ə?, my fieldwork observations (just discussed), and Watanabe's definitions of the Sliammon cognates, I propose the following working definitions of the Northern Straits clitics:

= tə PRESENT DIRECT EVIDENTIAL is used to impart information which is known to the speaker, and not the addressee, through direct observation; or to ask for information which
is known to the addressee and not the speaker. The evidence for the speaker’s/addressee’s knowledge is observable at the time of speech.

\[=k^\nu\] PAST DIRECT EVIDENTIAL is used to impart information which is known to the speaker, and not the addressee, through direct observation; or to ask for information which is known to the addressee and not the speaker. The evidence for the speaker’s/addressee’s knowledge was observable at some time prior to the time of speech.

These definitions are to be taken as second approximations (subsequent to Montler’s (1986: 215) first approximation of \[=k^\nu\]). One example that does not fit in with the above definitions is a command containing \[=k^\nu^\nu\].

(3.83) QIÁM CÉ,  
\[k^*\text{iem}=k^*\nu\] stop=PST.DIR.EV  
‘Stop it!’ (6.55, 13.76)

This will have to be taken into account in future research on the evidential clitics. The evidential clitics \[=\nu\] and \[=k^\nu\] commonly occur with the auxiliaries \[la^\nu\] and \[?eta\], which I treat as deictics.

The last clitic I will discuss in this section is \[k^\nu^\nu\]. Montler (1986: 190) calls the clitic realized, and shows that this is often used with sentences translated with the English already. This is especially the case when it’s used with resultatives like that in (3.84).

(3.84) ØL SKOL,EL TFE SKÅUT  
k*\text{t} s-q\text{^a}al\text{t} t\nu s\text{qew}\text{t}  
PRF RES-get.baked\text{IPFV} DET potato  
‘The potatoes are already baked.’ (2.3)

Kiyota (2008), however, argues that it is a perfect, and that it has similar uses to the English perfect (universal, experiential, perfect of result, perfect of recent past) in addition to an inceptive use. Example (3.85) gives a universal perfect use.

(3.85) k*\text{t} ci<\nu^\nu>q \nu t\nu e k^\nu\text{cil}  
PRF snow.fall<IPFV> OBL PROX.DEM morning  
‘It has been snowing since this morning.’ (Kiyota 2008: 102)

I will follow Kiyota’s (2008) analysis here and gloss this clitic as PERFECT (PRF). It is relevant to chapter 4, as its use with different predicates is one of Kiyota’s (2008) tests for atelicity.

This section has outlined some of the clitics and affixes with temporal, mood, modal, evidential, and perfect meaning in SENCOTEN. In the following section I will look
at two other clitics which affect the temporal interpretation of events with respect to each other, the discourse particles ?i? COMITATIVE and ?u? CONTRASTIVE.

3.1.5 Continuing and contrastive particles

Many SENÇOFEN clauses contain the particles ?i? and ?u?. Their meaning is difficult to pin down, but Montler (2003: 123-125) gives a characterisation which I will follow in my glossing. He suggests that there is a prefix ?i?- called continuing, which is used to describe “continuing motion”. This often co-occurs with imperfective aspect (3.86), and often with the perfect as well (3.87).

(3.86) I, TOTEN SEN E TFE SNÁNET
    ?i?-0a~09N=s9n ?o t9o sNenat
    CONTIN-IPFV~go.up=1SG.SBJ OBL DET rock
    ‘I’m on my way up the rock/mountain.’ (1.27)

(3.87) CE L I, TOCEL TFE SDÁČEN
    k*?=?i?-tak=øt t9ø s6eøN
    PRF=CONTIN-get.broken\PFV DET tide
    ‘The tide is breaking.’ (2.28)

Then there is a separate clitic ?i=, which he calls a comitative conjunction. It is used to conjoin verb phrases and denotes simultaneity of the two events described (3.91). It is also used to conjoin a verb to some adverbial intensifiers (3.92) (Montler 2003: 122).

(3.88) I, NEKNONET TFE KAK
    ?i?-naq*-naNat t9ø qeq
    CONTIN-fall.asleep-N.REFL[PFV] GNRL.DET baby

    I, WI E TFE ČEČÁČEN,
    ?i?=x*øy ?ø tø k*øy-k*čøaj
    COM=wake.up OBL GNRL.DET IPFV~shout
    ‘The baby was falling asleep when it was woken up by the shouting.’ (1.48)

(3.89) ČELÁL I, HÍ TFE SČÁ LTE
    čelel ?i?=hay tø sčey-4tø
    almost COM=finish[PFV] GNRL.DET work-1PL.POSS
    ‘Our work is getting finished.’ (2.52)

The conjunction and the continuing prefix do appear to bear some semantic resemblance, and it was often difficult to tell which is being used in a particular utterance. In addition, it is not clear that one should be treated as a clitic and one as a prefix. However, I will conform to Montler’s (2003) analysis for this thesis and gloss them differently from each other, making note that this requires further research.
The comitative conjunction contrasts with ?i?, which is used to indicate that an event is in contrast to expectations (Montler 2003: 124) (3.90) or in contrast with a present state of affairs (3.91).

(3.90) U, HEHO, I SEN OL
?u?=hɔ-haʔ-ay=sanʔ=al
CONTR=IPFV-alone=1SG.SBJ=LIM
‘I’m all by myself.’ (44.41)

(3.91) U ÍY, ILEN SE
?u?=ʔóʔ-il-әn=sә?
CONTR=good-DIR-MID=FUT
‘The weather’s going to get better.’ (Fieldwork 2006)

Montler (1986: 195) distinguishes between sentences with ?i? and ?u? using the following pair of sentences, which are translated identically, but described further in the paragraph following (3.92).

(3.92) a. ?i?=tɔwɔ ʃәtoŋ=sәn
COM=still walk\IPFV=1SG.SBJ
‘I’m still walking.’ (Montler 1986: 195)

b. ?u?=tɔwɔ ʃәtoŋ=sәn
CONTR=still walk\IPFV=1SG.SBJ
‘I’m still walking.’ (Montler 1986: 195)

Sentence (3.92a), according to Montler (1986), would be used in the context “I’ve been walking all day and I’m still walking” (p. 195); sentence (3.92b) “my husband’s sick, laid up, but I’m still walking” (p. 195; underlining in original). The contrastive conjunction is also used to conjoin some adverbs to verb (Montler 2003, Jelinek & Demers 2004).

A phonological string used very frequently in the examples cited in this thesis is [suʔ] which is used to connect a series of situations in discourse. (3.93) provides a series of clauses uttered in succession to describe a video. The clause introduced by this string often has properties of a subordinate clause; the examples in (3.93) contain the third person possessive suffix indicating a third person agent.

(3.93) a. ÇECIL ENÁ FE SĆĂĊES ENÁ ŠETEŇ
kʷa=kʷil ʔone ә sćecə-s ʔone ʃatN
IPFV~appear\[PFV] come FEM.DET friend-3POSS come walk\IPFV-MID
‘It was showing her friend coming walking.’
Since the clauses it introduces contain third person possessive agreement, I suggest that [su?] is a combination of the clausal nominaliser s= and the contrast clitic ?u?= and the string of clauses in (3.93b-d) are syntactically nominalised. Also, [su?] is very frequently preceded by ?en, which looks like the second person possessive clitic. The two were used frequently in the speakers' narration of short films. (3.94) is another example of narration.

(3.94)  a.  TU  I, SMOÇEL  CE,
tow  ?i?-s-mak'=k'=q?
a.little.bit  CONTIN-RES-get.bent\RES=PST.DIR.EV
'She was sort of bent.'

b.  SU, ĆS  ENÁĂĂ  TİLEŇ
s=u?=k*s=s
NMLZ=CONTR=COMP=NMLZ  come  stand.up[PFV]
'Then she started standing up.' [slowly]

c.  EN=SU, TW  STOQEĽ
?en=s?u?=tx*-s-θaq'=a
2POSS=NMLZ=CONTR=INCH-RES-get.straightened\RES
'Then she straightened out.'

d.  EN=SU, TWE  TETILEŇ,
?en=s?u?=tx*-a-θo~0iθaN
2POSS=NMLZ=CONTR=INCH-IPFV~stand.up
'Then she was standing.'

I am treating this ?en as the second person possessive clitic. It obviously has a specialised use here, since there is no second person reference. One reason to suppose this is the possessive is that occasionally na is used instead. That is the form of the first person possessive clitic. This pattern is also found in Musqueam Halkomelem (Suttles 2004: 105-112).
§3.1 has described morphology which is relevant to my thesis, but not that which forms its main focus. I have covered person and case agreement; lexical suffixes; several derivational formatives, including plural, diminutive, a nominaliser, and two verbalisers; tense, mood, modality, evidentiality, and perfect clitics; and the discourse prefix/clitics describing simultaneous and contrasting events. In the next three sections, I will provide a more detailed description of the morphology associated with aspect, valence change, and aktionsart.

3.2 Grammatical Aspect

In this thesis (§3.2) I argue that grammatical aspect is an inflectional feature on verbs, and that it has two values: perfective and imperfective. Thus, each verb has a two-member paradigm consisting of a perfective stem and an imperfective stem. I suggest that it is best to think of the perfective and imperfective in terms of inflectional classes because their forms show considerable variation which is not entirely predictable. The variants do not appear to be linked phonologically, though there have been several attempts to provide a unified morphophonological analysis (Montler 1986, Montler 1989, Stonham 1994, Kurisu 2002, Leonard & Turner 2010); these attempts are discussed in more detail below. The variation in imperfective shape appears to result rather from the convergence of historically distinct morphological formatives. In §3.2.1, I list the different perfective-imperfective shape patterns, in §3.2.2 I discuss previous accounts of the variation, and in §3.2.3 I compare the groups of stems taking the different shapes to Corbett’s (2009) canonical inflectional classes.

3.1.2 Perfective and imperfective stem shapes

There are four basic perfective-imperfective patterns, referred to in Leonard & Turner (2010) as follows: I) suffixation + vowel change, II) contrastive schwa insertion, III) CV-reduplication, and IV) glottal stop infixation. Although the terminology used by Leonard & Turner (2010) implies a process from perfective to imperfective, their templatic analysis does not assume this. I will continue to use these terms here, but will also
introduce each pattern as associated with an inflectional class. The classes are motivated below.

**Suffixation + vowel change** is attested with all verb stems containing only two consonants and lacking a full vowel (Class I). This pattern was first recognised as an imperfective pattern in Turner (2006), although previous authors had described resultatives with the same internal shape (see §3.4.1). The perfective of these stems has the shape CaC and the imperfective has the shape CeCaI or CaCaI. Examples are given in (3.95) through (3.98), where the perfective is in (a) and the imperfective in (b).

(3.95) a. **TBE SE, TFE ŠXEL,ÁL,S**
   *tak*=s? tθo šxəels*
   **break**[PFV]=FUT **GNRL.DET** pencil
   ‘The pencil is going to break.’ (2.25)

   b. **TOCEľ TFE ŠXEL,ÁL,S**
   *tak*=tθo šxəels*
   **break**[IPFV] **GNRL.DET** pencil
   ‘The pencil keeps breaking.’ (2.29)

(3.96) a. **CEL, TFE NE TI**
   *k*əl tθo no ti
   **spill**[PFV] **GNRL.DET** 1SG.POSS tea
   ‘My tea got spilled.’ (6.22)

   b. **I, CÔL,Bľ TFE TA,BCEľ**
   *qi*=k*əot tθo teyǝk*ət
   CONTIN=spill[IPFV] **GNRL.DET** race.canoe
   ‘The canoe is on the verge of tipping over.’ (5.3)

(3.97) a. **LO,ETE TÀ, CŁ NEK TFE Katie**
   *la*=tθo k*≡=naq* θo Katie
   **GNRL.AUX=PRS.DIR.EV** again **PRE=sleep**[PFV] **FEM.DET** Katie
   ‘Katie’s sleeping again.’ (17.60)

   b. **NOKEľ I WEČET SW**
   *naq*=tθo *q*=x*əał-ot= sx*
   **sleep**[IPFV] **COM=wake.up-C.TR=2SBJ**
   ‘She was sleeping and you woke her up.’ (12.41)

(3.98) a. **LET TFE ŠTEM,ČES**
   *lo*=tθo štǝnǐk*=as
   **fill**[PFV] **GNRL.DET** car
   ‘The car is full.’ (Fieldwork 2006)

   b. **I LÁTEL TFE NE Á,LEN**
   *?*=le*əot tθo no ?e?lño
   CONTIN=**fill**[IPFV] **GNRL.DET** 1SG.POSS house
   ‘My house is getting full.’ (44.8)
The quality of the full vowel is discussed by L. Thompson, M. Thompson & Efrat (1974: 190) and by Montler (1986: 140-141) in his section on resultatives. L. Thompson et al. state that [a] is only found preceding rounded post-velars (i.e., [q*] and [x*]), but based on further fieldwork Montler finds that forms with [a] all seem to have a labial consonant in the root, but not necessarily a post-velar labial (e.g., 3.2). However, since some forms with labials have [e] in their imperfective/resultative stem, the contrast is not entirely driven by phonology.

The final two consonants of these imperfectives [ɔl] are analysed in Montler’s (1986: 56) discussion of resultative as a separate suffix called durative. However, in SENCOTEN at least, I have only found three environments in which this suffix occurs: 1. in imperfectives/resultatives of this stem type; 2. in persistent middles of verbs with no full vowel in the root (see §3.4.4); 3. in words meaning ‘belonging to’ (Montler 1986: 57). An instance of the second and third types are given here:

(3.99) ČEX,IN,EL
čaŋ*-i-ŋ-ɔl
melt-PERSIS-MID-DUR?
‘Someone’s melting something.’ (9V.28)

(3.100) x*-sənəq-ɔl
LOC-Saanich-DUR
‘It belongs to Saanich (a given personal name).’ (Montler 1986: 57)

The ‘belonging to’ use of [ɔl] in, for example, (3.100) is the only instance which appears to be a genuine suffix, since it is not accompanied by any other morphology. With both the imperfective and the persistent, there appears to be a specific phonological and morphological environment in which [ɔl] only and always occurs. For imperfectives this is with CaC bases and for persistents this is with middle suffixed stems of CaC or CCaC roots. I therefore maintain my position of Turner (2006, 2007) and Leonard & Turner (2010): although [ɔl] is likely a suffix historically, it is synchronically part of the imperfective shape of CaC stems. The suffix does not appear to be found outside Straits Salish, since it does not appear in the major descriptions of other Central Salish languages.

**Contrastive schwa insertion** is used with verb stems containing three consonants and lacking a full vowel (Class II). Leonard & Turner (2010: 87), arguing that schwa is largely predictable in SENĆOŦEN, refer to these stems as CCC stems. This also follows Montler’s (1986: 122) analysis of these forms, where he argues that there is no underlying vowel in the roots of these stems. The stems have the shape CCaC in the perfective and CaCC in the imperfective. The picture is complicated because other schwas can be epenthesised into stems of this shape containing non-glottalised resonants (y, l, n, m, η) in order to avoid illicit consonant clusters (Montler 1986: 127, Leonard & Turner: 90).

Examples are given in (3.101) through (3.104).

(3.101)  

<table>
<thead>
<tr>
<th>Stem</th>
<th>Perfective</th>
<th>Imperfective</th>
<th>Meaning</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. ŠKET LTE SE,</td>
<td>TFE</td>
<td>SČA LTE</td>
<td>'We’re going to finish our work.' (18.18a)</td>
<td></td>
</tr>
<tr>
<td>sq-ot=to=sa?</td>
<td>tɔ</td>
<td>s-čey=to</td>
<td></td>
<td></td>
</tr>
<tr>
<td>get.finished-C.TR\PFV=1PL.SBJ=FUT</td>
<td>GNRL.DET</td>
<td>NMLZ-work=1PL.SBJ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. ŠEKT SEN</td>
<td>TFE</td>
<td>NE</td>
<td>SČA</td>
<td></td>
</tr>
<tr>
<td>sq-t=san</td>
<td>tɔ</td>
<td>n</td>
<td>s-čey</td>
<td></td>
</tr>
<tr>
<td>get.finished-C.TR</td>
<td>PFV\PFV=1SG.SBJ</td>
<td>GNRL.DET</td>
<td>1SG.POSS</td>
<td>NMLZ-work</td>
</tr>
<tr>
<td>'I’m trying to finish my work.' (18.21a, 46.34)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(3.102)  

<table>
<thead>
<tr>
<th>Stem</th>
<th>Perfective</th>
<th>Imperfective</th>
<th>Meaning</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. TPEX</td>
<td></td>
<td></td>
<td>'scatter' (Turner 2007: 83)</td>
<td></td>
</tr>
<tr>
<td>ọpọx</td>
<td>scatter\PFV</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>'scatter' (Turner 2007: 83)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. TEPX</td>
<td></td>
<td></td>
<td>'scattering' (Turner 2007: 83)</td>
<td></td>
</tr>
<tr>
<td>ọpọx</td>
<td>scatter\PFV</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>'scattering' (Turner 2007: 83)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(3.103)  

<table>
<thead>
<tr>
<th>Stem</th>
<th>Perfective</th>
<th>Imperfective</th>
<th>Meaning</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. YÁ, SEN</td>
<td>U, STEN OL,</td>
<td></td>
<td>'I’m just going to walk.' (Fieldwork 2006)</td>
<td></td>
</tr>
<tr>
<td>go=1SG.SBJ</td>
<td>CONTR=walk\PFV=LIM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. ČČĂNȚETEN SEN</td>
<td>ET</td>
<td>Janet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>k*čeŋ-ot-ŋ=son</td>
<td>?o</td>
<td>=ɭ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>yell-C.TR\PFV\PFV=1SG.SBJ</td>
<td>OBL=PN.DET</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ČNES</td>
<td>I ŠȚEȚEN</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>k*=n=ɭ</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>comp=1SG.POSS=NMLZ</td>
<td>CONTIN=walk\PFV</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>'Janet yelled at me while we were walking.' (Fieldwork 2006)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The third perfective-imperfective pattern is **CV-reduplication**. Several perfective stem shapes are found with this pattern, all containing a full vowel in the initial syllable. I will call stems which follow this pattern Class III stems.27

(3.105) a. HÍ SEN DILEM
hay=sian tilam
finish[PFV]=1SG.SBJ sing
'I’m going to quit singing; I quit singing.' (21.23)

b. JÁN YOT U, HOHI ET Janet
cén ya?u?=ha~hāy ?a=ʌ Janet
really always CONTR~IPFV~finish OBL=PN.DET Janet
'She’s always quitting on Janet.' (44.39)

(3.106) a. YÁ, SEN TON E TTE ĆOL,EK
ey?=sian θaŋ ?a tŋ čalq^w
go=1SG.SBJ go.up[PFV] OBL GNRL.DET upstream.area
'I’m going up (to the top).' (1.26)

b. I, TOFEN SEN E TTE SNÁNET
?w=θa~θaŋ=sian ?a tŋ spenat
CONTIN~IPFV~go.up=1SG.SBJ OBL GNRL.DET mountain
'I’m on my way up to the rock/mountain.' (1.27)

(3.107) a. LO,E SEN TE TIMO,T TFE ŶO,
lá?ŋ=sian=təŋima?ŋ-t tŋ q^wʔ?
GNRL.AUX=1SG.SBJ=PRS.DIR.EV freeze-C.TR[PFV] GNRL.DET water
'I froze the water.' (28.5)

b. LO,E SEN TE TETI,MOT TFE ŶO,
lá?ŋ=sian=təŋima?ŋ-t tŋ q^wʔ?
GNRL.AUX=1SG.SBJ=PRS.DIR.EV IPFV~freeze-C.TR GNRL.DET water
'I’m freezing the water.' (19.15a, 47.37)

(3.108) a. ŶO,ŶO, E SW?
q^wʔ?q^wʔ?=?a=ŋx*
drink[PFV]=Q=2SBJ
'Are you going to drink?' (Fieldwork 2006)

---

27 Note that unstressed full vowels normally reduce to schwa in SENCOTEN (Montler 1986: 28), so the location of the full vowel in the imperfective depends on the stress pattern for the word. This is generally assigned to the rightmost left-headed foot (Leonard 2007), often resulting in penultimate stress (Montler 1986: 26). Thus the full vowel in a reduplicated imperfective stem is normally in the penultimate syllable, but there are exceptions (3.111). See Turner (2007) for full argumentation.
Although some stems with a full vowel have reduplicated imperfectives, others (Class IV) follow a different pattern: in (3.109) through (3.112) the perfectives have various different stem shapes, and the imperfectives differ from their corresponding perfective by the presence of a glottal stop infix after the stressed vowel. An epenthetic schwa appears in one of three environments. First, it appears when the glottal stop infix is followed by a resonant (3.110), perhaps to differentiate the glottal stop infix from a glottalised resonant. Second, it appears when the glottal stop infix would form a cluster with another consonant in a coda (3.111). Third, it appears when the infix occurs at the right edge of a word (3.112).

(3.109) a. WITEN ʔS SEKS TFE SEPLIL
        x*ïtoŋ k*=s søq=s tθō sopilil
        jump[PFV] COMP=NMLZ go.out-3POSS GNRL.DET bread
        'The bread jumped out.' (11V.146b)

b. JAN U, WITEN, ěen ṭuʔ=x*i<ŋ>toŋ
        really CONTR=jump<PFV>
        'He’s really jumping.' (46.9)

(3.110) a. TINEL TFE ŠTEM,ČES
        tŋgal tθō štanik=as
        get.near GNRL.DET car
        'The car’s really close.' (6.21)

b. I ŽI,ENEL TFE ŠTEM,ČES
        t?i=ŋi<ŋ>ŋel tθō štanik=as
        CONTINU-get.near<PFV> GNRL.DET car
        'The car’s getting closer, nearing.' (6.21a)

(3.111) a. SÂT SEN TFE NE SČÁČE YĀ, TA
        se=t=son tθō nō sčẹča ye? tēy
        make-C.TR[PFV]=1SG.SBJ GNRL.DET 1SG.POSS friend go canoe.race[PFV]
        'I made my friend race.' (2.41)

b. SÂ,ET SEN TFE NE SČÁČE YĀ, TA
        seʔ=sa=t=son tθō nō sčẹča ye? tēy
        make-C.TR<PFV>=1SG.SBJ GNRL.DET 1SG.POSS friend go canoe.race[PFV]
        'I’m making my friend race.' (2.41)
Some perfective-imperfective pairs do not follow one of the four major patterns just described. Some imperfectives show reduplication and a glottal stop inflexion:

(3.113) a. **X̐ám sen** E TFE E,WOTEL,29
   x̐am=san
   watch<PFV>=1SG.SBJ OBL GNRL.DET competition
   ‘I’m going to watch the competition.’ (19.27)

b. **Xe̓xilationmen sen** E TFE E,WOTEL,
   x̐e̓xil-λ=ma=lan
   IPFV~watch<IPFV>=1SG.SBJ OBL GNRL.DET competition
   ‘I was watching the competition.’ (19.27b)
   [speaker 1 pronunciation]

(3.114) a. **Yà, e SW** ŚQOM
   yè?=}?=sxʷ
   go=Q=2SBJ swim
   ‘Are you going for a swim?’ (Turner 2007: 91)

b. **Shašqo,em e SW**
   ša̓=škʷ=á?=}i=om=}?=sxʷ
   IPFV~swim<IPFV>=Q=2SBJ
   ‘Are you swimming?’ (Turner 2007: 91)

These forms have probably arisen in the language because the imperfective shape of a verb base containing a full vowel is not phonologically predictable, and because reduplication and glottal stop inflexion probably represent diachronically distinct morphology. Kinkade (1996: 186) shows that some Central Salish languages have only the reduplicated variant of the imperfective and not the glottal inflex (Comox-Sliammon, Pentlatch, Sechelt, Squamish,  28 The oblique preposition is unexpected here, since Janet is the agent participant for the predicate ‘come visit’. It is possible I have parsed this sentence wrong, and it should be nel<ewxʷ=ə=so?
   ‘visit=FUT’.
29 Note that the comma is used in the SENCOTEN orthography to represent both a glottal stop and glottalisation on a resonant (see the orthography key at the beginning of the thesis). I found that the speakers I worked with also used the comma to represent morphological boundaries and sometimes used it in several places in imperfective words (not just next to resonants).
Nooksack) and suggests that Proto-Salish had two distinct imperfectives, a glottal infix and reduplication. The glottal infix is now found in some of the Interior Salish languages with repetitive or inchoative meaning. (Kinkade 1996: 193).

The following table summarises the major patterns of perfective-imperfective stem alternation.

**Table 3.1: Perfective and imperfective stems**

<table>
<thead>
<tr>
<th>Class I (suffixation + vowel change)</th>
<th>abstract stem</th>
<th>perfective</th>
<th>imperfective</th>
</tr>
</thead>
<tbody>
<tr>
<td>CC</td>
<td>CC</td>
<td>CaC</td>
<td>CeCa± / CaCa±</td>
</tr>
<tr>
<td>Class II (contrastive schwa)</td>
<td>CCC(C)</td>
<td>CCaC(C)</td>
<td>CaCC(C)</td>
</tr>
<tr>
<td>Class III (reduplication)</td>
<td>any containing full vowel</td>
<td>e.g., CVC(...)</td>
<td>e.g., CV~CVC(...)</td>
</tr>
<tr>
<td>Class IV (glottal stop infixation)</td>
<td>any containing full vowel</td>
<td>e.g., CVC(...)</td>
<td>e.g., CV&lt;?&gt;C(...)</td>
</tr>
</tbody>
</table>

In addition to the four perfective-imperfective stem patterns, all resonants occurring to the right of the stressed vowel are glottalised in all imperfective forms (Montler 1989, Caldecott 1999). A good example of this is given in (3.115), where the resonants [l] and [m] are glottalised in the imperfective.

(3.115)  a. **DILEM SE**  TE  Janet
         tilam=so?  th  Janet
         sing[PFV]=FUT  FEM.DET  Janet
         'Janet's going to sing.'  (45.19)

         b. **DEDI,LEM,**  TE  Janet
            to-ti6om  th  Janet
            IPPFV~sing  FEM.DET  Janet
            'Janet's singing.'  (45.20)

There are also glottalised resonants in perfective forms, but only where these are part of the lexical verb root (e.g., the root k^dl 'spill' in (3.96)), and these are glottalised in both aspects.

Montler (1986: 31) also argues that resonant glottalisation plays a role in the alternation between [k^] and [w] and between [c] and [y] found in some verbs, which is conditioned by factors of stress and word position. He analyses these forms as having a
hardening process in the perfective, and this hardening does not occur when the glide is
glottalised in the imperfective.

(3.116) a. **NEČNEČEN**
nač-načen
PL~smile[PFV]
‘They all laughed.’ (23.142b)

b. **NELENEYEN**
na~le~na'yəq
IPFV~PL~smile
‘They’re all laughing.’ (23.142c)

(3.117) a. **ČOČES**
čak*as
use-EFF[PFV]
čak as
TTEN, SKÁL,
tooh sq*el
‘Use your language.’ (5.0d)

b. **ČE,O,WES**
č<o?>awos
use-EFF<IPFV>
GNRL.DET;2POSS NMLZ-speak
‘Keep using your language.’ (5.0e, 9V.2a)

The alternation can also be seen between perfectives, as the glide also occurs when it is
preceded by stress (Montler 1986: 31) or in coda position (e.g., xʷʔay ‘wake up’ vs. xʷač-at
‘wake someone up’). Galloway (1988), in his reconstruction of Proto-Central Salish
phonemes, shows that Proto-Central Salish *w has in some cases developed into Northern
Straits and Klallam [kʷ] and *y into [c].

3.2.2 Problems with previous accounts of the stem shapes

This perfective-imperfective contrast has received several analyses. L. Thompson &
M. Thompson (1969) account for the Klallam pattern as metathesis, and Demers (1974)
and Montler (1986) propose two different stress shift analyses. Other accounts attempt to
unify all imperfective forms. Montler (1989) uses a template to account for all imperfective
forms, Stonham (1994) suggests that all imperfective formation strives to add a mora to the
perfective base, Kurisu (2002) uses an optimality theoretic account where all imperfective
forms result from the need for imperfectives to be distinct enough from perfectives, and
Leonard & Turner (2010) propose a functional account based on Bybee’s (1985) model of
the lexicon, where speakers strive to make imperfectives similar to each other, despite
distinct historical origins of the variants. Only Leonard & Turner (2010) include the suffixation + vowel change variant in their analysis.

These accounts have been successful in varying degrees (see Turner (2007: 41)) for a critical comparison), but none has been able to account for all forms since the imperfective shape simply is not fully predictable based on the perfective shape. Both the reduplication and the glottal stop infix pattern are attested with verb stems containing full vowels. Consider (3.119) and (3.120), both of which have the same perfective stem shape (CVCaC), but differ in their imperfective stem shape.

(3.119)  

a.  
\[\text{CÁČEN} \quad \text{TE} \quad \text{Janet} \]
\[k^\ast \text{ečəŋ} \quad \theta \quad \text{Janet} \]
\[\text{shout[Pfv]} \quad \text{FEM.DET} \quad \text{Janet} \]
\[\text{Janet yelled.} \text{ (Turner 2007: 85)} \]

b.  
\[\text{WINONE SW} \quad \text{ČEN},s \quad \text{ČECÁČEN}, \]
\[x^\ast \text{ʔy}^\ast-n^\ast \text{æ}=sx^\ast \quad k^\ast=\text{æ}=s \quad k^\ast=\text{ečəŋ} \]
\[\text{wake.up-NC.TR[Pfv]-1SG.OBJ=2SBJ \ COMP=2POSS=NMLZ IPFV~shout} \]
\[\text{‘You woke me up when you were hollering.’ (8.54a)} \]

(3.120)  

a.  
\[\text{HÁSEN SEN} \]
\[\text{hesə}=\text{son} \]
\[\text{sneeze[Pfv]=1SG.SBJ} \]
\[\text{‘I just sneezed.’ (Turner 2007: 35)} \]

b.  
\[\text{HÁ,SEN}, \text{SEN} \]
\[\text{he}<\text{ʔ}=\text{so}=\text{son} \]
\[\text{sneeze<IPFV>=1SG.SBJ} \]
\[\text{‘I’m sneezing.’ (Turner 2007: 35)} \]

Most verbs follow one or the other pattern, but above I showed verbs which follow both patterns at once (3.113-3.114), and some verbs are attested with either pattern, as in (3.121-3.122):

(3.121)  
\[\text{DENONEW LTE ČE,} \]
\[\text{ŋa~ŋa-nax}=\text{ht}=k^\ast=\text{a}^\ast \]
\[\text{IPFV~get.eaten-NC.TR=1PL.SBJ=PST.DIR.EV} \]
\[\text{TFE \ ČESE \ MO,EK} \]
\[\text{tθə \ čəso \ maʔ=ə} \]
\[\text{GNRL.DET \ two \ duck} \]
\[\text{‘We’re managing to eat the two ducks.’ [produced by speaker 2] (2.16)} \]
These examples are discussed further in §5.2.2, where I will suggest their rarity (as imperfective achievements) has led to a situation where the few remaining speakers of SENCOTEN variably produce either pattern, since they have perhaps never heard the words used, or only heard them many years ago when SENCOTEN was still widely spoken in the Saanich community.

3.2.3 Inflectional classes

Since the imperfective form is not entirely predictable based on the shape of the perfective form, I suggest that the stems taking each of the different patterns are treated as different inflectional classes. I use the term as defined by Aronoff (1994: 64): “a set of lexemes whose members each select the same set of inflectional realisations”. The term inflectional class is also used by N. Mattina (1996) in her model of Okanagan word formation. However, her use of the term is different. She uses the term to distinguish two semantically, morphologically, and syntactically distinct sets of verb stems: transitives and intransitives. The transitive and intransitive verb stems are treated as belonging to different inflectional classes because transitive stems take ergative suffixes while intransitive stems take absolutive suffixes (p. 57-65). Thus, they are two classes whose members select the same set of feature values, rather than realisations of features. I use the term to refer to five classes of SENCOTEN verb stems. All of these contain verbs taking both perfective and imperfective aspect, but the classes are distinguished based on the way the aspects are realised on the verb stems they comprise. Table 3.2 gives a list of examples of each class.
Table 3.2: Inflection class examples

<table>
<thead>
<tr>
<th>Class</th>
<th>Perfective</th>
<th>Imperfective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class I</td>
<td>takʷ 'break'</td>
<td>takʷ-oṭ 'breaking'</td>
</tr>
<tr>
<td></td>
<td>lašō 'get full'</td>
<td>lešō 'filling'</td>
</tr>
<tr>
<td></td>
<td>qasō 'fall in water'</td>
<td>qesōt 'going in water'</td>
</tr>
<tr>
<td></td>
<td>kʷoṭ 'spill, get tipped'</td>
<td>kʷəšōt 'spilling, tipping'</td>
</tr>
<tr>
<td></td>
<td>pekʷ 'rise to surface'</td>
<td>pekʷ-oṭ 'bobbing'</td>
</tr>
<tr>
<td>Class II</td>
<td>tkʷ-oṭ 'break it'</td>
<td>takʷ-t 'breaking it'</td>
</tr>
<tr>
<td></td>
<td>kʷ-əšō 'count'</td>
<td>kʷ-əšōt 'counting'</td>
</tr>
<tr>
<td></td>
<td>ūpōxt 'scatter them'</td>
<td>ūpōxt 'scattering them'</td>
</tr>
<tr>
<td></td>
<td>kʷəšōt 'spill it, tip it'</td>
<td>kʷəšōt 'spilling it, tipping it'</td>
</tr>
<tr>
<td>Class III</td>
<td>tampilkan 'sing'</td>
<td>talampilkan 'singing'</td>
</tr>
<tr>
<td></td>
<td>xšlem 'watch'</td>
<td>xšxlem 'watching'</td>
</tr>
<tr>
<td></td>
<td>xałnxʷ 'manage to write it'</td>
<td>xałnxʷ 'managing to write it'</td>
</tr>
<tr>
<td></td>
<td>talnxʷ 'learn it'</td>
<td>talnxʷ 'learning it'</td>
</tr>
<tr>
<td></td>
<td>qʷay 'die'</td>
<td>qʷay 'dying'</td>
</tr>
<tr>
<td>Class IV</td>
<td>Pįŋōl 'approach'</td>
<td>tʰʔŋōl 'approaching'</td>
</tr>
<tr>
<td></td>
<td>sapt 'whistle'</td>
<td>šaʔpt 'whistling'</td>
</tr>
<tr>
<td></td>
<td>čąqsat 'get big'</td>
<td>čąqsat 'getting big'</td>
</tr>
<tr>
<td></td>
<td>nānxʷ 'manage to eat it'</td>
<td>nāʔnxʷ 'managing to eat it'</td>
</tr>
<tr>
<td></td>
<td>set 'make someone do something'</td>
<td>seʔat 'making someone do something'</td>
</tr>
<tr>
<td>Class V</td>
<td>kʷčęŋ 'shout, call'</td>
<td>kʷəkʷeʔčęŋ 'shouting, calling'</td>
</tr>
<tr>
<td></td>
<td>škʷam 'swim'</td>
<td>šəškʷəʔam 'swimming'</td>
</tr>
</tbody>
</table>

Salish languages are not normally treated as containing inflectional classes, perhaps because of the small number of inflectional features in most Salish languages, and the lack of interaction between them. This also perhaps results from the dominant approach in traditional accounts of Salish languages, which has been largely morpheme-based (see N. Mattina 1996, Black 1996, and Willett 2003 for discussion and alternative accounts). In order to motivate my use of inflectional classes to explain the SENCOTEN data, I will go through Corbett’s (2009) criteria for canonical inflectional classes.

According to the first criterion, Criterion 1, forms differ as consistently as possible across canonical inflectional classes, cell by cell. The SENCOTEN aspectual inflection classes are split in this regard. Classes I and II are canonical because it is always possible to predict a perfective from an imperf ective and vice versa. All Class I perfectives have a shape with two consonants (the lexeme stem) broken up by a schwa; and all Class I imperfectives have a shape with two consonants (the lexeme stem), ending in the affix -əṭ and containing a full vowel [a] or [e]. Since the quality of the full vowel is almost always predictable on phonological grounds, I have not treated stems with CaCoI and CeCaI.
imperfectives as belonging to different classes. However, since it is not entirely predictable, it might be better to split the class into Class Ia and Class Ib stems. Classes III-V are non-canonical with respect to Criterion I because their forms do not differ consistently. Their perfectives have a variety of stem shapes, and it is not always possible to predict the form of the imperfective based on the form of the perfective.

Criterion 2 states that canonical inflectional classes realise the same morphosyntactic or morphosemantic distinctions. In this respect the SENČOTEN aspectual inflection classes are canonical. The perfective stems are always used for perfective aspect (event time within reference time) and the imperfective stems are always used for imperfective aspect (reference time within event time). The imperfective stems are also used in derived states (resultatives) very consistently.

Criterion 3 states that within a canonical inflectional class each member behaves identically. SENČOTEN is slightly non-canonical in this respect. There are several surface differences among the members of each class. In Class I, some imperfectives have an [a] and some have an [e]. As stated above, this is largely phonologically predictable. In Class II, some perfectives and imperfectives have extra schwas. These are all epenthesised due to phonotactic constraints on consonant clustering (Leonard & Turner 2010). In Class III and Class IV there are some stress differences among forms. These are likely due to the variable patterns of syllable weight among the verb stems (see Leonard's (2007) account of stress in SENČOTEN forms containing lexical suffixes). Since three of these differences are due to external factors (phonology, phonotactics, and lexical stress), the classes are still close to the canonical ideal with respect to criterion 3.

Criterion 4 states that within a canonical inflectional class each paradigm cell is of equal status. The SENČOTEN classes are canonical in this respect. Although perfective aspect looks basic in terms of some of the forms, I will argue in chapter 5 that it is not a neutral aspect. Thus, perfective and imperfective are equal to each other.

Criterion 5 states that the larger the number of members of an inflectional class, the more canonical that class. The SENČOTEN inflection classes are all canonical in this
respect except Class V. The members of classes I-IV are of roughly equal distribution. This does not mean that the verbs of each class have equal frequency of use. Since CC stems are all roots, many of them are unaccusatives, and unaccusatives are rarely found in discourse, particularly in the imperfective aspect (see §5.3).

Criterion 6 states that the distribution of lexical items among canonical inflectional classes is not phonologically motivated. The SENÇOTEN inflectional classes are partially canonical in this respect. Stems with no full vowel and two consonants all fall in class I, stems with no full vowel and more than two consonants fall in class II. Stems with a full vowel fall in class III, IV, or V. Thus assignment to inflectional class is non-canonical for stems lacking a full vowel. However, stems with a full vowel are not predictably assigned to any one class: some are in class III, some in class IV, and some class V.

Criterion 7 states that the distribution of lexical items among canonical inflectional classes is not syntactically motivated. The SENÇOTEN classes are canonical in this respect.

Criterion 8 states that the distribution of lexical items among canonical inflectional classes is not motivated by Part of Speech. Corbett (2009: 7) mentions that many inflectional features are themselves constrained to a particular part of speech. This is the case for SENÇOTEN, since only verbs take aspect (see §5.2). However, this criterion may apply when we compare imperfectives and resultatives. Resultatives are considered to be adjectives derived from verbs (§3.4). Though they do not distinguish aspect (since they are not verbs), they have the same stem shape as the imperfective. The resultative stem shapes follow the same pattern as imperfectives. Most resultatives are of CC or CVC stems, and these look like class I and class III imperfectives, respectively. An imperfective of the same verb stem as a resultative almost always has the same shape (Turner 2007, §3.4). Another area where criterion 8 may be relevant is in looking at derived nominals which have perfective or imperfective shapes. These again follow the same patterns as perfective and imperfective verbs. Thus, it seems that the SENÇOTEN classes are as canonical as they could be with respect to criterion 8, because when the perfective and imperfective stem
shapes are used with different parts of speech, they still follow the same patterns with respect to inflectional class.

It appears that the SENĆOTEN verb stems are quite close to being canonical inflection classes. They are all canonical with respect to four of Corbett’s (2009) criteria, almost canonical with respect to one of the criteria, all but one class is canonical with respect to another, and about half of the classes are canonical with respect to the remaining two. However, there is something unusual about the SENĆOTEN inflectional classes, and that is that they only apply to one morphosemantic feature. As I claimed in §3.1, SENĆOTEN does not have a great deal of inflectional morphology. The only other morphology I considered inflectional is person and case agreement. Case agreement consists only of the ergative suffix -as, a concatenative formative varying only in phonologically predictable ways. Subject person agreement shows no variation and consists mostly of clitics. Object person agreement varies according to a different set of classes, which are motivated by derivational morphology. It would be possible to construct a paradigm consisting of a verb stem with all of its distinct agreement and aspect combinations; however, since nothing other than aspect relies on the inflection classes above, and none of the inflectional features are formally dependent on each other, this does not seem to be a particularly useful exercise.

3.3 Valence-changing morphology

As with all Salish languages (Kroeber 1991: 28), SENĆOTEN has a set of productive valence-changing suffixes. Not all of the valence-changing suffixes are discussed in chapters 4 and 5, but I will briefly mention all of them in this section, especially highlighting where I depart from Montler (1986) in my analysis and/or terminology. I will begin with suffixes which derive transitives from intransitives (CONTROL TRANSITIVE, NON-CONTROL TRANSITIVE, CAUSATIVE, EFFORT), then I will discuss suffixes which derive intransitives from intransitives (MIDDLE, ANTIPASSIVE), then suffixes which derive
intransitives from transitives (REFLEXIVE, RECIPROCAL, PASSIVE), and lastly suffixes which derive transitives from transitives (RELATIONAL APPLICATIVE, REDIRECTIVE APPLICATIVE).

3.3.1 Control transitive

The suffix -dt is generally used to derive transitives from unaccusatives. The unaccusative form (a) is used when there is only one direct argument in the sentence, and the transitive (b) when there are two.

(3.123) a. JÁN U, ČEK  TTE SEPLIL ET Claire
cen ?u?=čaq*  tθo sopil  ?a= Claire
really CONTR=burn[PFV] GNRL.DET bread OBL=PN.DET Claire
‘Claire’s toast got burned.’ (11V.144e)

b. ČE,LÁL SEN I ČEKET  TTE SEPLIL
cel=so  ?i?=čaq*ot  tθo sopil
almost=1SG.SBJ COM=burn-C.TR\PFV GNRL.DET bread
‘I almost burned the bread.’ (I cooked it there a little too long) (29.34)

(3.124) a. ČEL,  TTE NE TI
kʰol  tθo nə ti
spill[PFV] GNRL.DET 1SG.POSS tea
‘My tea got spilled.’ (6.22)

b. I, ČELET SW  TFÂ,E
?i?=kʰol-ot=sx  tθe?o
CONTIN-spill-C.TR\PFV=2SBJ DIST.DEM
‘You poured it/spilled it.’ (10V.69b)

The unaccusative usually has as its argument the undergoer of the event. For most of the examples I have recorded, the undergoer is a patient, and the event has been brought about by some external cause (not necessarily an agent).

(3.125) a. WÍ  TTE Katie
xʰøy  tθo Katie
wake.up[PFV] FEM.DET Katie

b. WEČET SEN  TTE Katie
xʰoč=ot=son  tθo Katie
wake.up-C.TR\PFV=1SG.SBJ FEM.DET Katie
‘I woke Katie up.’ (V2.131)
However, some unaccusative counterparts of transitive verbs express an internally caused event (i.e., an event which is caused by the undergoer itself).

Some transitives do not appear to have a corresponding unaccusative base that can surface on its own as a verb. When I attempted an unaccusative *kʷən ‘be seen’ (3.128a), the speakers volunteered instead (3.128b), which has the *have prefix (§3.1.2) which in this case derives a word with an agentive subject. The transitive is in (3.128c).

(3.128) a. Ñkʷən tθo palak
see[PFV] GNRL.DET Philip
‘Philip was seen/looked at.’

b. Çqen TFE PELEC
žkʷən tθo palak
HAVE-see[PFV] GNRL.DET Philip
‘Philip saw.’ (20.27)

c. Qenet TE MEtuLIYE TFE PELEC
kʷən ot θo mataliva tθo palak
see-C.TR\PFV FEM.DET Victoria GNRL.DET Philip
‘Victoria looked at Philip.’ (20.28)

Some of these may just require the right context to surface, and I may not have found it.

When I presented (3.129a) to a speaker, he said it was not a good sentence, but later on when I asked him how to say ‘The door opened on its own’, he produced it.
(3.129) a. \textbf{W\textsc{cek}} \hspace{1cm} \textit{TFE} \hspace{1cm} \textit{SO\textsc{el}}
\begin{align*}
x^\text{k}\n^\text{aq} & \quad \text{to}\theta \quad \text{sa}^1 \\
\text{open\textsc{PFV}} & \quad \text{GNRL.DET} \quad \text{door}
\end{align*}
\textit{‘The door opened on its own.’} (34.6)

b. \textbf{W\textsc{ceket}} \hspace{1cm} \textit{TFE} \hspace{1cm} \textit{SO\textsc{el}}
\begin{align*}
x^*k^*a^q-t & \quad \text{to}\theta \quad \text{sa}^1 \\
\text{open-C.TR\textsc{PFV}} & \quad \text{GNRL.DET} \quad \text{door}
\end{align*}
\textit{‘Open the door.’} (34.1)

However, I do expect there to be transitives which do not have a corresponding unaccusative. Gerds & Hukari (2006a) have found that 19\% of verb roots in their 489-verb corpus of Halkomelem cannot occur as bare roots. This leads them to propose that these roots are ‘transitive roots’, meaning that transitivity is inherent to the root itself.

Gerds (2006) shows that the Halkomelem control transitive does not just apply to verb stems with a patient subject, and to bound roots like (3.128), but also to some verb stems with an agent subject. In the command in (3.130), the subject is the elided second person. The patient (the salmon) appears not in a direct argument, but in an oblique phrase.

\begin{itemize}
\item [Halkomelem:]
\end{itemize}

(3.130) a. \textit{\textit{nem} \textit{\textbf{cak}^\text{x} \textit{?o} \textit{k=\theta o} \textit{sce:tan!}}}
\begin{align*}
go \quad \text{fry} & \quad \text{OBL} \quad \text{REM.DET} \quad \text{salmon} \\
\textit{‘Go fry some salmon!’} (Gerds 2006: 77)
\end{align*}

b. \textit{\textit{now=o-s \textit{nem} \textit{\textbf{cak}^\text{x}-t \textit{t\theta} \textit{saplil!}}}}
\begin{align*}
2\textit{PRED-NMLZ} \quad \text{go} \quad \text{fry-TR} & \quad \text{GNRL.DET} \quad \text{bread} \\
\textit{‘You go fry the bread!’} (Gerds 2006: 77)
\end{align*}

An identical cognate verb to that in (3.35b) exists in SEN\textsc{oten}, and so do cognates of the other Halkomelem transitives which pattern like this. However, the intransitive counterpart in (3.35a) is not found among the data I have consulted for this thesis.

As discussed in chapter 2, in addition to transitivity, this suffix also describes an event which Kiyota (2008) calls a \textit{quasi-telic accomplishment}. This means that the semantics of the event has an implicature but not an entailment of culmination. In Bar-el's (2005) terms, it does not include a final point. This will be discussed further in chapter 4.

\textit{\textsuperscript{30} Sentences with no overt subject or subject agreement can be interpreted as declaratives with a 3\textsuperscript{rd} person subject or as commands with a 2\textsuperscript{nd} person subject (see §5.1.3). The latter is more common in out of context translations given by the speakers I worked with, as is the case with this example.}
3.3.2 Non-control transitive

The non-control transitive suffix is used at least with the same type of verb bases as the control transitive. In Halkomelem, it is also used with unergative verbs (verbs lacking a causative event structure). There is far less data on the combinatory possibilities of valence-changing suffixes in SENĆOŦEN than there is in Halkomelem, so at this point it is unclear whether the non-control transitive can be used with unergatives in SENĆOŦEN too. Examples (3.131-3.133) show its use with three of the same unaccusative bases of control transitives shown above (3.124, 3.125, 3.129).

(3.131) a. **CEL, TFE NE TI**
   k*əl təə no ti
   spill[PFV] GNRL.DET 1SG.POSS tea
   'My tea got spilled.' (6.22)
   b. **I, CEL,NOW SEN TFE KO, ?i?=k*əl-nax*=səən təə qə?a?
   CONTIN-spill-NC.TR[PFV]=1SG.SBJ GNRL.DET water
   'I managed to tip the water out; I finally tipped the water out.' (4.18)

(3.132) a. **WÍ TFE Katie x*əy təə Katie**
   wake.up[PFV] FEM.DET Katie
   ĽS KETXSETS TFE WÁČS
   k*ə=s qətx-sət=s təə weč-s
   COMP=NMLZ rattle-C.TR;C.REFL\PFV-3POSS GNRL.DET clock-3POSS
   'Katie woke up because of an alarm.' (30.18a)
   b. **LO,E TE SW TÁ, WINOW TÉ Katie**
   laʔ=x=to=səx* λeʔ x*əy-nax* təə Katie
   GNRL.AUX=PRS.DIR.EV=2SBJ again wake.up-NC.TR[PFV] FEM.DET Katie
   'You accidentally woke up Katie again.' (16C.7a, 45.15)

(3.133) a. **WEKN TFE SOL**
   x*k*əq təə saɬ
   open[PFV] GNRL.DET door
   'The door opened on its own.' (34.6)
   b. **SU WEKNOWS TFE SOL**
   s=ʔ=x*k*əq-nax*-s təə saɬ
   NMLZ=CONN=open-NC.TR[PFV] GNRL.DET door
   'Then she managed to unlock the door.' (11V.179a)

Montler (1986) gives the non-control transitive form as -naxʷ, as so many examples contain both the [n] and the [axʷ] (reduced to [əxʷ] when unstressed). However, Wiltschko (2003a: 88) argues for Upriver Halkomelem that the cognate form -laxʷ consists
of the non-control suffix -l and a third person object suffix -axʷ. There is evidence to suggest this is the case in SENĆOŦEN as well, but there is also evidence against it. First, in support of the analysis, the [ax^j part is only found in clauses with third person objects, and not found when first and second person object suffixes are used.

(3.134) WINOŦES SW CEN,S CECACIÓN, xʷy-n-aŋəs=sxʷ kʷ-əŋ=s kʷ-ə=kʷeəŋ
wake.up-NC.TR-1SG.OBJ[PFV]=2SBJ COMP-2POSS=NMLZ IPFV-yell
'You woke me up when you were hollering.'

Another piece of evidence arguing for a Wiltsehko-style analysis of SENĆOŦEN is that [axʷ] is also found in causative forms with third person objects (3.135), and not in causatives with first or second person objects (3.136).

(3.135) ETOTW SEN TFE KAK
?stat-txʷ=sən tə qeq
go.to.sleep-CAUS[PFV]=1SG.SBJ DET baby
'I put the baby to sleep.' (8.52b)

(3.136) HÍFTOŦES SW
hiθ-t-aŋəs=sxʷ
long-CAUS-1SG.OBJ[PFV]=2SBJ
'You kept me for a long time.' (Montler 1986: 167)

These facts are not unnoticed by Montler (1986), but he argues that the [xʷ] is deleted before any suffix (p. 166). If [axʷ] is a 3rd person object suffix -axʷ, we will need to account for why it does not surface when followed by the suffix -əs, normally treated as an ergative agreement suffix for third persons subjects of transitives (§3.1.1):

(3.137) KOİNES TFE SWIḴE TFE SPÁ,ET
qʷy-n-əs tə swəʔə? tə speʔə
die-NC.TR[PFV]-3ERG DET man DET bear
'The man killed the bear.'

It also does not surface in passives with third person objects:

(3.138) CEL,NON kʷ-əl-na-ŋ spill-NC.TR[PFV]-PASS
'He managed to tip it over.' (lit. It got tipped over by someone) (5.8)

The passive example shows that it is only the [xʷ] which is deleted before other suffixes, or which constitutes the third person object suffix. Kroeber (1991: 29) reconstructs the Proto-Central Salish non-control transitive suffix as *-nəw; this would be phonetically [nu], 128
and *u has developed into [a] in some dialects of Northern Straits (L. Thompson et al. 1974, Galloway 1988).

Another fact that needs to be explained if analysing [ax^] as a 3rd person object suffix is that this object suffix is only used with non-control transitive clauses and causative clauses, and not with control transitives. Here I will follow Montler’s (1986) analysis for the purposes of interlinear glossing.

3.3.3 Causative

There is a third transitiviser -stax^*. Cognates of this suffix, which is traced back to Proto-Salish (Newman 1980: 158), appear in most other Salish languages (Kroeber 1991: 29), and it is usually known as the causative suffix, since it is used to refer to an event where one person makes someone else do something.

Its form shows some variation which, like much of SENĆOŦEN verbal morphology, is partially phonologically driven. Montler (1986: 165-167) gives the following explanation of its form. The suffix never actually appears as [stax^]. In general, the /s/ appears only when the suffix is preceded by a vowel (3.139), the /a/ appears only when there is no other full vowel in the word (3.140). As mentioned above, the /x^/ does not surface if the suffix is followed by another suffix (3.141).

(3.139) a. ILÆN
    ?iGn
eat[PFV]
‘Eat.’ [command, doesn’t sound rude] (39.18)

b. ELEN, ISTW
    ?iGn-i-stx^*
eat-REL-CAUS[PFV]
‘Feed her.’ (39.19)

(3.140) a. JÀN ĆEȽ TLĀ ŠTÛWÁĆEN
    čen čq tī?e št®wečən
really big PROX.DEM chair
‘Gee, that chair is big.’ (37.3)

b. JÀN SW ĆEKTOW TTE SXÂŁ, ĖL
    čen=sx^* čq-tax^* tō s-xelə
really=2SBJ big-CAUS[PFV] GNRL.DET RES-get.written\RES
‘You made the letters big.’ [so the elder could see them] (37.4)
(3.141) a. **ENÁ SW CECI,ILES**
   ?one=sx* k*ơ~k*i<∅?i>l-as
come[PFV]=2SBJ IFPV~appear<IFPV>-C.TR;ISG.OBJ
   ‘Come and see me now and then.’ (15.17)

b. **IENÁ,ETES TFE NE COFI**
   ???=ʔone<ʔa>-t-as
   CONTIN=come<PFV>-CAUS-3ERG GNRL.DET ISG.POSS coffee
   ‘She’s bringing my coffee.’ (31.11b)

In fact, there are causatives which do not conform to this pattern. First, I have recorded a few causatives which are preceded by a vowel and do not have the /s/, as in (3.141) above and (3.142). Also there are two which end in a consonant but do have the /s/; one is given in (3.143).

(3.142) **SQATW SEN**
   sk*ey-tx*=s成熟的
   cannot-CAUS=1SG.SBJ
   ‘I don’t want to.’ (36.20a)

(3.143) **QEN,STW SEN TFE Katie E TFE CICS**
   k*on-stx*=s成熟的 ʔa Katie ?a tə ʔa kiks
   see-CAUS=1SG.SBJ FEM.DET Katie OBL GNRL.DET cake
   ‘I’m going to show Katie the cake(s).’ (31.3)

Montler (1986: 166) suggests that the /s/ may be another affix, but cautions that there is not enough evidence to analyse it as one. It appears then that the formal variation in the causative suffix is not entirely phonologically predictable.

As seen in the examples above and below, the causative suffix is used to transitiivise verbs referring to one-participant situations like activities (3.139), situations involving motion (3.141), individual-level states (3.140, 3.142), resultatives (derived individual-level states (3.144)), and stage-level states (3.145). Gerdts (2006: 72) states that the Halkomelem causative used with states means “to make, get, have, keep, or find something in that condition or state”. We see this in SENCOTEN too (3.144).

(3.144) a. **ŚČAKEL**
   ʔ-k*eqat
   RES;LOCAT-open\RES GNRL.DET door
   ‘The door is open.’ (34.2)

b. **ŚČAKELTSES**
   ʔ-k*eqat-t-as
   RES-open\RES-CAUS[PFV]-3ERG GNRL.DET umbrella-3POSS
   ‘She left/had her umbrella open.’ (40.29, based on videos)
As shown in (3.143) above, it is also used to bring a third participant into a situation which already has two participants (see Gerdts & Hukari (2006c) and Gerdts (2006) for this property of Halkomelem causatives). In these cases, the subject is a causer (first person) and the object the agent (Katie). The patient can be expressed in an optional oblique phrase (e.g., the cakes in (3.143)). The causative suffix also co-occurs with the benefactive applicatives (see 3.139), which will be discussed in §3.3.10.

3.3.4 Effort

There is a fourth transitivising suffix in SENĆOTEN which is quite rare. Montler (1986: 168) calls this the effort suffix, and it has the form -as. Most of my examples with -as involve bound roots. Of those verbs taking -as, only the verb root in (3.147) has been recorded without the suffix (3.147a).

(a) WU,Á SE, NOU, x*əwe=saʔ? nəw almost=FUT go.in[PFV] ‘He’s not in yet.’ (23.120)
Montler (1986: 168-169) suggests that it may be a variant of the causative suffix, but shows that it does not always have the same form. He concludes that further data are required to understand this suffix better; unfortunately this is still the case.

3.3.5 Middle

This is another suffix with cognates in almost all Salish languages. Gerdts & Hukari (2006b) note that the Halkomelem middle (and other Salish middles) is used with a variety of constructions, including denominal verbs, verbs of motion, inchoatives, manner of speaking verbs, spatial configuration verbs, body processes, verbs of emission, personal and logophoric reflexives and antipassives (called “implied object” by H. Davis (1997)). They discuss how it appears in several intransitive verbs with bound roots. They also identify it with the homophonous passive suffix. I will not be discussing all of these uses of middle in SENĆOTEN, but will focus on the antipassive, reflexive, and motion verb uses, and discuss its appearance with bound roots. The passive is discussed separately below.

Some verbs with a middle suffix are derived from unaccusative bases representing two-participant events. They differ from their bases in that they have the agent as their direct argument rather than the patient. This type of middle is called “antipassive” by Gerdts & Hukari (2006b) and “implied object” by H. Davis (1997). Taking (3.148) as an example, the unaccusative (a) has only one syntactic argument (‘the money’); the transitive (b) has two direct syntactic arguments (the subject ‘you’ and direct object ‘the money’); the middle (c) has one direct syntactic argument (‘Claire’), and one indirect argument (‘the money’), which appears in an optional oblique phrase. Examples (3.149) and (3.150) compare transitives with middles.

31 In this example, the verb does not appear to have the third person ergative agreement suffix -as, despite occurring in a transitive clause with a third person subject. Perhaps the two homophonous suffixes are coalesced.
In these examples, the middle form has an agent as its subject, and this same participant is expressed as the subject of a corresponding transitive. There is also a use of the middle that takes an undergoer as its subject, and this participant is expressed as the object of the corresponding transitive. The following examples illustrate corresponding transitives (a) and middles (b). For example, in (3.151) the words meaning ‘canoe’ are an object in (a) and a subject in (b).

(3.151) a. YÁ SEN TE XTIT TFE COFI ye? san xti-t t09 kafi GNRL.AUX=1SG.SBJ=PRS.DIR.EV get.prepared-C.TR[PFV] GNRL.DET coffee ‘I made that coffee.’ (24.36)

b. ÁLE SEN XTIT EN E TFE COFI ?e=son xti-EN ?o t09 kafi PROX.AUX=1SG.SBJ get.prepared-MID[PFV] OBL GNRL.DET coffee ‘I made the coffee.’ (24.34)

Note that the different words for canoe in (3.151a) and (b) bear no relevance on the transitive vs. middle verbs. The word teyok*at refers specifically to a canoe used in racing, while snax*at is a generic word for canoe.

32
b. **HILEN E SE** TFE SNEWEL
   hil-ŋŋ=ŋ=sŋ tθo snɔx=ɔŋ
   fall-MID[PFV]=Q=FUT GNRL.DET canoe
   ‘Is the canoe going to fall?’ (2.49a)

\[(3.152)\] a. **ČOXET** TFE PETE
   čaxʷ-ŋən tθə pətə
   melt-C.TR[PFV] GNRL.DET butter
   ‘She melted the butter.’ (V2.27, 9V.27)

b. **ČOXEN** TFE NE PETE
   čaxʷ-ŋəŋ tθə nə pətə
   melt-MID[PFV] GNRL.DET 1SG.POSS butter
   ‘My butter’s melting.’ (9V.15a)

None of these verb roots have been found on their own as bare unaccusatives.

Gerdts & Hukari (2006b) also discuss personal reflexives containing lexical suffixes, where the lexical suffix denotes the patient of the event. These are normally body parts:

\[(3.153)\] ČŁ JPOLESEN TFE Katie
   kʷ=ŋ=ŋ-pələ-ŋəŋ tθə Katie
   PRF=close-EYE-MID[PFV] FEM.DET Katie
   ‘Katie closed her eyes.’ (10V.116a)

Another use of the middle is in motion verbs, normally also employing the directional suffix (§3.1.2). Unsuffixed forms of this verb root are given in the (a) examples of (3.154) and (3.155), and directional middles in the (b) examples.

\[(3.154)\] a. I, TWE NANEJ TFE SEL,SÁLES.
   ?i?=tə-ne-ŋəŋ =tθə sal=selas
   CONTIN=INCH-IPFV=different[PFV] GNRL.DET PL~hand

   NAJS QEN,TIS.
   nəŋ-s kʷəŋ-t-i-s
   different-3POSS sec-C.TR-PERSIS[IPFV]-3POSS
   ‘Her hands are doing other things than what she's supposed to be doing because she's looking somewhere else.’ (23.162)

b. SIJAN ŁTE U NEJILEN OL,
   s-čen=θə ?u?=ŋəŋ-il-ŋəŋ=ŋən
   NMLZ-really=1PL.SBJ CONTR=different-DIR-MID[PFV]=LIM

   E TFE KAL ŁTE
   ?ə tθə qʷel=θə
   OBL GNRL.DET speak[PFV]=1PL.SBJ
   ‘We really have gone in a different direction with what we are saying, we got sidetracked.’ (17.127a, 42.26)
Some verbs appear to contain a middle suffix, but the verb root does not appear without that suffix. Some of these are motion verbs; they also include bodily processes, verbs of speaking and other activities. These are all verb types which Gerdts & Hukari (2006b) list as containing the middle in Halkomelem.

I have not glossed the middle suffix in these words, however, as the suffix does not appear to be productively used in these cases. First, the roots are completely bound to the suffix, and second, the middles seem to be re-analysed as roots to which new valence-changing morphology can apply. Compare (3.159) below with (3.156) above and (3.160) with (3.158).
In addition, some words have what appears to be a middle suffix, but instead of the Straits Salish -η they have the form -om used in other Central Salish languages.

The middle suffix in Halkomelem is -om so these words may have been borrowed wholesale from Halkomelem. Alternatively, they may have been inherited from a previous stage of Northern Straits or from proto-Central Salish, as Northern Straits and Klallam /ŋ/ is historically derived from proto-Central Salish *m (Galloway 1988).

3.3.6 Structured activity antipassive

Montler (1986: 175-176) describes the structured activity suffix -ola? (imperfective -els). He notes that it is similar to the middle but that it does not necessarily imply a controlling agent and is used to describe regular activities. However, in the examples I have recorded, the middle does not always imply a controlling agent (see (3.151) and (3.152) above) and the suffix -ola? is used in one-off situations (see (3.163 below). Thus, it appears that -ola? is similar to the antipassive function of the middle. Gerdt & Hukari (2005) argue that the Halkomelem suffix -els is used in antipassive constructions 34, since it refers to events

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33 We know that this is a control transitive and not a causative form because it has the control transitive object suffix for first person. When this suffix is used, the [t] of the control transitive never surfaces (Montler 1986: 153).

34 The Halkomelem suffix does not have the two distinct aspectual forms that the SENČOTEN antipassive has.
which are semantically causative but which have only one direct syntactic argument, which
is an agent. The patient may be optionally expressed in an oblique phrase.

(3.163)  
a. **MEQLIISI**
mek^<i<?^> is  
be.awaited-PERSlS<1PFV>-1SG.OBJ ye?=son  
'Wait for me! I'll be there.' (23.99)

b. **MEQEOLO,**
mekeala?  
be.awaited-ANTIP<1PFV> FEM.DET woman ?o=λ Claire  
'The lady's waiting for Claire.' (23.75a)

The middle suffix can also be used in antipassive constructions, and the Halkomelem -els is
used particularly to designate typical activities. Thus, Gerdt & Hukari (2005) use the term
'activity' to refer to this suffix. I gloss the SENCOTEN suffix as an antipassive, in general
wishing to make comparison of SENCOTEN with non-Salish languages easier. However, it
is worth noting that it often has a specialised use in referring to structured activities.

The bases to which the structured activity antipassive applies are generally
unaccusative. The following example set shows an unaccusative (a), a control transitive
(b), an antipassive in the perfective aspect (c) and an antipassive in the imperfective aspect
(d), all with the same verb base.

(3.164)  
a. **LO,ET**
la?=to  
GNRL.AUX=PRS.DIR.EV get.written<1PFV> GNRL.DET;2poss name  
'Your name is written down.' (2.17)

b. **XEL,ET**
χo^t9=s9n  
get.written<1SG.SBJ GNRL.DET;2poss name  
'I wrote your name down.' (Fieldwork 2006)

c. **SU,**
s=to=χo^ola^s  
NMLZ=CONTR=get.written-ANTIP-3POSS<1PFV>  
'And she wrote.' (23.31)  
[describing picture series where Katie is marking papers]

d. **XELLOLELS**
χo^els  
get.written-ANTIP<1PFV> FEM.DET Katie  
'I was writing letters when her alarm rang.' (21.54)
This is identical to one of the uses of the middle suffix. Below are a perfective and an
imperfective middle used in a similar way to the structured activity antipassive. ((3.165)
describes the same scene as (3.164c) and (3.164d)).

(3.165) a. XEL,EN ḋSE NE ŠIEŁ
   xol-әŋ k*sә nә šiә́ł
get.written-MID\PFV REM.DET 1SG.POSS older.sibling
   'My older brother is writing.' (26.30)

   b. TINTEN TTE WÃČS
   tintәŋ тә wәә-s
   ring[PFV] GNRL.DET clock-3POSS
   SU, HÌS XEL,INEәLS
   s=uʔ=hay-s xol-ipә-s
   NMLZ=CONTR=finish[PFV]-3POSS get.written-MID\PFV-3POSS
   'When her clock rang, she stopped writing.' (21.57)

A structured activity antipassive was also used to describe someone who is a writer.

(3.166) NIL XEL,Á,L,S ḋSE SWÍ,KE NE ŠIEŁ
   nil xol-els k*sә swayәʔ nә šiә́ł
   3PRED get.written-ANTIP[PFV] REM.DET man 1SG.POSS older.sibling
   'My older brother is a writer.' (20.9c)

There are not very many structured activity antipassives in my fieldwork data, and Montler
(1986: 175) suggests that the suffix is not particularly productive. Due to the lack of data, I
will not be considering structured activity antipassives in chapter 4.

3.3.7 Reflexives

SENČOTEN has two reflexive suffixes, -sat and -nәt. Here I will argue, following Gerdts's
(2000) claims for Halkomelem, that the suffix -sat is used for two different verb types. The
claim is that -sat may attach to a transitivized verbal base, yielding a “core” reflexive; or it
may attach directly to a root, yielding a verb which does not have a core reflexive meaning.
All verbs containing the reflexive suffixes are intransitive. This is claimed by Montler
(1986: 184), various arguments are provided for Halkomelem by Gerdts (2000: 139-141)
which extend to SENČOTEN, and Kroeber (1991: 32) asserts this to be true of Salish
reflexives generally. One argument regards the use of the ergative agreement suffix -әәs,
which is found with all main clause transitives containing a third person subject (3.167).
This suffix is not used with reflexives that have third person subjects (3.78).

Therefore, the reflexives behave syntactically like intransitive verbs and not transitive verbs.

3.3.7.1 Control reflexive

Both Montler (1986) and Gerdts (2000) argue on different grounds that there are two types of verb containing -sat (Halkomelem -ødət). Although they have different reasons for distinguishing the two types, the distinctions they make are the same, and so the Halkomelem evidence and the SENCOTEN evidence complement each other to provide a strong argument for distinguishing these two types. In what follows, I will refer to control reflexives, which have reflexive semantics, and inchoatives, which have inchoative semantics.

Gerdts (2000: 137-8) argues that control reflexives are derived from control transitive bases by addition of a reflexive suffix -sat. In Halkomelem, the /t/ of the control transitive and the initial /s/ of the reflexive suffix fuse to yield [θ], as shown in (3.169). This is a regular pattern occurring at a morphological boundary, found also when the control transitive is followed by /s/-initial object suffixes (3.170).

Halkomelem:

(3.169) a. Ɂʷaqʷ  club  'get clubbed'
    b. Ɂʷaqʷ-ət  club-TR  'club it'
    c. Ɂʷaqʷ-əθət  club-TR:REFL  'club self' (Gerdts 2000: 137)

(3.170) niʔ Ɂʷaqʷ-əθəniʔ-əs  to sələniʔ  (>Ɂʷaqʷ-ət-səniʔ-əs)  
AUX club-TR:1OBJ-3ERG DET woman  (>club-TR-1OBJ-3ERG)
'The woman clubbed me (on purpose).' (Gerdts 2000: 137)

Gerdts (2000) does not call these ‘control’ transitives or reflexives, but just transitives and reflexives, since her position in that paper is that -οt is unspecified for control.
In SENČOTEN, the /t/ of the control transitive suffix and the /s/ of a following suffix also interact, but deletion rather than fusion occurs, as the /t/ does not surface. In the perfective aspect of stems with no full vowel it is possible to detect the presence of the control transitive suffix by the presence of an extra schwa (Montler 1986: 185). Another way of looking at this is that the control reflexives in (3.171-3.172) have the perfective stem shape of inflectional class II, where a schwa is inserted after the first two consonants.

Control reflexives: [base + C.TR + sat]

(3.171) **BŒSET**

\[pk^+e-sat\]

surface-C.TR\PFV-C.REFL
gnrl.det
duck

‘The duck surfaced on its own.’

(3.172) **WEŒSET**

\[x^oa-e-sat\]

wake.up-C.TR\PFV-C.REFL
fem.det
katie

‘Katie woke herself up.’

The fact that these verbs belong to inflection class II, despite the underlying full vowel of the reflexive suffix -sat, suggests that the reflexive suffix is formally outside of imperfective inflection.

Control reflexives are derived from control transitives, and their roots are unaccusative. Inchoatives, in contrast, are based on homogeneous states (or adjectives).

Inchoative: [base + sat]

(3.173) **TŁONESET**

\[l*mo-sat\]

cold-INCH\PFV

gnrl.det
day

‘The days are getting colder.’

Gerdts (2000) argues that, unlike the core use of the reflexive suffix, this inchoative use does not derive an intransitive from a control transitive, since the roots with which it is found do not otherwise take the control transitive.

However, as the inchoatives are formally identical to the core control reflexives in Halkomelem, Gerdts is led to argue that there is a reanalysis of these forms, whereby -sat is taken to be a single suffix with an inchoative use (p. 152). Fortunately, SENČOTEN provides evidence to support Gerdts’s claim, since its control reflexives and inchoative reflexives are formally distinct, at least with respect to verb bases lacking a full vowel (Montler 1986: 185-6). Example (3.174) differs from the control reflexives in (3.171-3.172)
above in that it lacks the extra schwa between the base (in this case a root) and the reflexive, and in that stress is found on the reflexive suffix, which thus surfaces with a full vowel. Again thinking in terms of inflectional classes, the inchoatives belong to one of the full vowel classes, III, IV, or V.

Inchoative: \([\text{base } + \text{ sat}]\)

(3.174) \(\text{ČEKSOT} \quad \text{TFE} \quad \text{SKELÁLNEW} \)
\(\text{čaq-sat} \quad \text{θo} \quad \text{sqalelnax}^*\)
\(\text{big-INCH[PFV]} \quad \text{GNRL.DET} \quad \text{tree}\)

‘The tree’s getting big.’

This is made more obvious when we consider the imperfective shapes of a control reflexive and an inchoative. The control reflexive again patterns like inflectional class II (schwa after first consonant), and the inchoative like inflectional class IV (glottal stop after stressed vowel).

(3.175) \(\text{WISET} \quad \text{TE} \quad \text{Katie} \)
\(\text{x'=-\=y-sat} \quad \text{θo} \quad \text{Katie}\)
\(\text{wake.up-C.TR;C.REFL\[PFV\]} \quad \text{FEM.DET} \quad \text{Katie}\)

‘Katie was trying to wake up.’ (20.48)

(3.176) \(\text{ČEKS,SO,ET} \quad \text{TFE} \quad \text{SKÁL} \)
\(\text{čaq-sa<\=t} \quad \text{θo} \quad \text{sq^el}\)
\(\text{big-INCH<IPFV>} \quad \text{GNRL.DET} \quad \text{NMLZ-speak}\)

‘The meaning/news is still getting bigger.’ (30.19)

These facts suggest that, while the reflexive suffix is formally \textit{outside} the imperfective, the inchoative suffix is \textit{inside}. This is discussed further in §3.5.3.

As shown in (3.177), a full vowel base can also take \textit{-sat} directly, but only the semantics and the nature of the verb base as homogeneous state tell us that this is an inchoative and not a control reflexive (Montler 1986: 185).

(3.177) \(\text{QÁSSET} \quad \text{TFE} \quad \text{SKEKEL,} \quad \text{E} \quad \text{CSIÁ} \quad \text{ČELAKEŁ} \)
\(\text{k-es-sat} \quad \text{θo} \quad \text{sq^e=x^e} \quad ?o \quad \text{k^si?e} \quad \text{čaleq^e}\)
\(\text{hot-INCH[PFV]} \quad \text{GNRL.DET} \quad \text{sun} \quad \text{OBL REM.DEM} \quad \text{yesterday}\)

‘The sun got hot yesterday.’ (21.40)

Montler’s (1986) examples of the reflexive suffix attaching directly to a root coincide perfectly with the examples of the inchoative use of reflexives described by Gerdts (2000): their roots are denote states rather than being unaccusatives, and they have inchoative meaning.

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Kiyota (2008: 43-44) also discusses inchoatives, though not in contrast with core control reflexives. He shows that /-sat/ attaches to homogeneous states (Montler's (2003) adjectives) to provide an inchoative meaning, and that these derived forms behave like non-states with respect to a few of his aspectual tests. For example, (3.178) shows that an inchoative can appear with a punctual clause modification, something its root *k*amk*om* 'strong' cannot do.

(3.178) k*amk*om-sat tə Jack k*=s
*strong*-INCH[PFV] GNRL.DET Jack COMP=NMLZ
k*əl=k*ən-ət-əŋ-s tə steŋəxʷ-s
PRF=take-C.TR[PFV]-PASS-3POSS GNRL.DET medicine-3POSS
'Jack felt strong when he took the medicine.' (Kiyota 2008: 44)

The following table summarizes the differences between control reflexives and inchoatives, and shows that Montler (1986), Gerdts (2000), and Kiyota (2008) all provide evidence for the same two-way distinction.

<table>
<thead>
<tr>
<th></th>
<th>Control reflexive [base+C.TR+sat]</th>
<th>Inchoative [base+sat]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Montler (1986)</td>
<td>• Contain control transitive suffix (schwa).</td>
<td>• Do not contain control transitive suffix.</td>
</tr>
<tr>
<td></td>
<td>• Have &quot;control&quot; meaning.</td>
<td>• Have &quot;non-control&quot; meaning.</td>
</tr>
<tr>
<td>Gerds (2000)</td>
<td>• Contain control transitive suffix.</td>
<td>• Are reanalyzed without control transitive, though its formal presence is detectable.</td>
</tr>
<tr>
<td></td>
<td>• Have reflexive meaning.</td>
<td>• Have inchoative meaning.</td>
</tr>
<tr>
<td></td>
<td>• Contain unaccusative roots.</td>
<td>• Contain stative/unergative roots.</td>
</tr>
<tr>
<td>Kiyota (2008)</td>
<td>• Not discussed.</td>
<td>• Are derived from homogeneous states.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Pattern with non-states.</td>
</tr>
</tbody>
</table>

When taken together, the arguments provided by these authors provide strong evidence that there are two verb types containing -sat. In chapter 4, we will see that the situation type tests support this distinction, since control reflexives pattern with achievements, while inchoatives pattern with activities.

3.3.7.2 Non-control reflexive

Verbs containing the suffix complex -najət express an event in which there is a single participant with a limited amount of control. Montler (1986: 178) calls it a
non-control middle, presumably because of its “managed-to” readings described below.

Here I follow Gerdts (2000: 153-155), who calls it a reflexive and argues that the reflexive use of the cognate Halkomelem suffix -namat is primary. When this ending is used with unaccusative roots, the verb describes an event which occurs either accidentally (3.179) or suddenly (3.180), or it may describe a reflexive event which was difficult to achieve but has now been successfully completed (3.181).

(3.179) MÁCELNONET TTE SPÁ,E'T
mek*¬na-gat tō speʔʔθ
get.injured-NC.TR[PFV]-NC.REFL GNRL.DET bear
'The bear injured itself accidentally.'

(3.180) WINONET TE Katie
x*¬na¬gat θo Katie
wake.up-NC.TR[PFV]-NC.REFL FEM.DET Katie
'Katie woke up.' [context: phone suddenly wakes her up]

(3.181) ČAL SEKNONET E TLÁ SKÁL L.TE
čel saq-na¬gat ?o tiʔe s¬q*el=lta
finally go.out-NC.TR[PFV]-NC.REFL OBL PROX.DEM NMLZ-speak=1PL.POSS
'Our words finally came out.'

Both Montler (1986) and Gerdts (2000) suggest that the non-control reflexive suffix may contain the non-control transitive suffix -n(αv*) followed by a reflexive suffix of some kind.

Henry Davis (p.e.) elucidates: the Proto-Salish limited control suffix has an alternate *-nu, which has developed into SENČOFEN -na due to a general change from [u] to [a] in some Northern Straits dialects (L. Thompson et al. 1974, Galloway 1988). The reflexive part of the suffix, -qat, derives from the reflexive suffix *-mut of the M-object suffix set used with causative and non-control suffixes (Kiyosawa & Gerdts: 32, mentioned in footnote 1 above). This exhibits a general change from [m] to [ŋ] in Straits Salish. The suffix *-mut contrasts with *-sut, from the S-object suffix set, which is used with control forms (and developed into the SENČOFEN control reflexive suffix -sat, §3.3.7.1). I have glossed examples of non-control reflexives accordingly, with the non-control transitive followed by a reflexive suffix.

The non-control reflexive suffix can also be used with unergative roots, in which case the participant “manages to” do something, or “finally” achieves something. Since
this use does not involve a causative semantics, where an agent acts on itself, Gerdts (2000: 153-155) argues that it reflects an extension of the reflexive suffix outside of its core reflexive use. However, I will argue in chapter 4 that the non-control reflexive has the same situation type as its base, so that its semantics depend on whether it is built on an unaccusative or an unergative. At any rate, there is no formal distinction among verbs containing -yat, as there is with -sat, so there is nothing further to say about its form.

3.3.8 Reciprocals (control and non-control)

Parallelling the control and non-control reflexive, there is also a control and non-control reciprocal, used to describe an event with two participants who are both agents and patients, normally engaged in a reciprocal action. The control reciprocal is -tal. As with the control reflexive, the control reciprocal is based on the control transitive.

(3.182) QENETEL TFE NE SCÁLEČE
K=on-a-tol ţo na sće<la>ća
see-C.TR-C.RECP[PFV] GNRL.DET 1SG.POSS friend<PL>

SU, NENIĆENS
s=u?=nɔ~niće~s
NMLZ=CONTR=PL~laugh-3POSS
‘My friends looked at each other and laughed.’ (20.32c, 26.61)

(3.183) TIKTEL TFE SNEWEL
tiq-tol ţo snaxʷəɬ
get.bumped-C.TR;C.RECP[PFV] GNRL.DET canoe
‘The canoes bumped into each other.’ (20.55)

(3.184) ČENENI,TEL SW HÁLE
k*on=ic政府采购=sxʷ=helə
help-REL<IPFV>-C.TR;C.RECP=2SBJ=2PL
‘You folks help one another.’ [command] (32.12)

The non-control reciprocal is -nəkwəɬ. Montler (1986) argues that the underlying form is /nəwəɬ/ and that the glide is hardened to [kʷ] in perfective aspect. In imperfective aspect, the resonant /w/ is glottalised to [w] (see §3.2.1) and the glottalisation prevents the hardening.

(3.185) a. KELNEČEL ITE
q*əl-na-kʷəl=ltə
speak-NC.TR-NC.RECP[PFV]=1PL.SBJ
‘We’re speaking to each other; we’re going to talk to each other.’ (31.2c)
b.  \text{KEL, NEWEL E SW} \\
q^\text{e}l-na-w^\text{e}l=\text{CONJ} \\
speak-NC.TR-NC.RECP[PFV]=Q=2SBJ  \\
'Were you talking to each other?'  (V2.94, 10V.94)

(3.186)  \text{NÀJNE0EL}  \\
ne\text{E}=\text{k^\text{e}l}  \\
different-NC.TR-NC.RECP[PFV]  \\
'Her shoes were mixed up.'  [two different colours]  (11V.164d)

(3.187)  \text{EL QEN, NE0EL}  \\
k^=\text{=kw^\text{e}l}  \\
PRF=see-NC.TR-NC.RECP  \\
'They saw each other.'  (27b.37)

Similarly to the non-control reflexives, I analyse the non-control reciprocal as \text{-k^\text{e}l},  \\
attaching to a reduced form of the non-control transitive \text{-na}.

3.3.9 Passive

The passive suffix in SENCOTEN \text{-\text{e}g} is formally identical to the middle suffix discussed  
above. Gerdt & Hukari (2006b) even claim that the Halkomelem middle and passive are  
the same suffix. However, the two are quite distinct in SENCOTEN for my purposes, since  
the middle suffix derives an atelic predicate from a telic predicate, while the passive does  
not (chapter 4). In addition, the middle is formally inside of perfective (it contributes to the  
verb's stem for the purposes of inflectional class assignment), while the passive is formally  
outside of imperfective (see §3.5.3). The passive applies to any of the transitive verb types,  
and derives a clause with a single direct syntactic argument, which is a patient/causee.

Example (3.188) shows a passive of a control transitive, (3.189) shows a passive of a non-  
control transitive, and (3.190) shows a passive of a causative.

(3.188)  \text{QSETEN}  \\
\text{KW}=\text{ot-\text{e}g}  \\
get.counted-C.TR\{PFV\}-PASS  \\
'The money got counted.'

(3.189)  \text{SEKNON}  \\
\text{SQ}=\text{=n-\text{e}g}  \\
get.finished-NC.TR[PFV]-PASS  \\
'Somebody finished the food.'
As with the patient of an event described by an antipassive, the agent/causer of an event described with a passive can be optionally expressed in an oblique phrase, as in ‘Janet’ in (3.191).

I have found that passives are often given during attempts to elicit imperfective unaccusatives in SENĆOŦEN. That was the case with (3.192).

This is probably due to the shared property of unaccusatives and passives in taking a patient subject.

Passives in Central Salish languages are used not only to demote an agent or focus on a patient in discourse, but are also used to avoid ungrammatical person combinations in transitive clauses (Hess 1973). Jelinek & Demers (1983) claim that Lummi has a restriction against third person subjects with first or second person objects. SENĆOŦEN does not generally allow clauses with third person subjects and second person objects (Montler 1986: 153-154). These situations are expressed with passives containing first or second person subjects.
Montler (1986) shows that this restriction is influenced by syntax: unlike the main clause shown in (3.193), relative clauses with third person subjects and second person objects are acceptable. It also does not appear to be a total restriction, even with respect to main clauses. Montler (1986: 154) gives one example which his consultants agreed could have either a first or second person object reading.

3.3.10 Applicatives

There are three applicative suffixes in SENĆOŦEN, which are not discussed further in this thesis. They do, however, show up in several examples in the thesis, so I will list them here in order to clarify those examples. Montler (1986) does not use the term *applicative* to refer to these suffixes, but Kiyosawa (2009) and Kiyosawa & Gerdts (2010) show that these are cognate and similar in function to applicatives in other Salish languages. I follow Kiyosawa & Gerdts’s (2010) terminology here, and not Montler’s (1986). The most common SENĆOŦEN applicative in my fieldwork is the redirective applicative -si, which introduces a benefactive or dative applied object. The applicatives are all transitive and the first two described here must contain one of the transitive suffixes. In example (3.194) the control transitive suffix is used.

(3.194) ỆEL, SIT  E TTE SKO, KỌ, 
            k=al-si-t ?ọ tọ saq*a?q*a? 
spill-RDR-C.TR[PFV] OBL GNRL.DET drink 
            ẸS KEKỌ,Ts SE, 
            k=aq*a?t-s=sa? 
COMP=NMLZ drink-C.TR[PFV]-3POSS=FUT
‘Pour the drink for him/her that he/she’s going to drink.’

Montler (1986: 153) explains that these two verb forms would surface the same, but only the 1st person object translation is possible.
SENCÖTEN also has two relational applicative suffixes, which introduce an applied object which is a goal or stimulus. The first is -yiy, which Montler (1986: 172-174) calls a “relational factive”. The following example contains a causative suffix.

(3.195) SESI,NISTOL,W SW
sasî?-qi-st-ðlxʷ=sxʷ
scared-REL-CAUS[PFV]-1PL.OBJ=2SBJ
'You scared us.' (Montler 1986: 174)

According to Kiyosawa (2006: 115-116), this relational applicative is used with verbs of facial expression in SENCÖTEN.

The other relational applicative suffix in SENCÖTEN is -nds, which Montler (1986: 167) calls “purposive”. This suffix appears to indicate transitivity itself; it does not require a separate transitive suffix, and takes pronominal object agreement directly.

(3.196) ČENENOTNESANES SW
kʷənəŋət-nəsəŋəs= sxʷ
run-REL[PFV]-1SG.OBJ=2SBJ
'You ran after me.' (Montler 1986: 168)

According to Kiyosawa (2006: 115-116), this relational applicative is used with verbs of motion in SENCÖTEN.

The following table summarises the valence-changing morphology in SENCÖTEN.

In the table, I have listed the term I will use in the thesis, the underlying form, the type of base the suffix can apply to, the valence it introduces, and which thematic roles it takes.
Table 3.4: Valence-changing morphology

<table>
<thead>
<tr>
<th>Term</th>
<th>Form</th>
<th>Base to which it applies</th>
<th>Valence</th>
<th>Thematic roles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>-ɔt</td>
<td>telic intransitive</td>
<td>2</td>
<td>agent and patient</td>
</tr>
<tr>
<td>transitive</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-control</td>
<td>-nax</td>
<td>telic intransitive</td>
<td>2</td>
<td>agent and patient</td>
</tr>
<tr>
<td>transitive</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Causative</td>
<td>-stax</td>
<td>atelic intransitive or</td>
<td>2</td>
<td>depends on verb stem (causer and causee or agent and patient)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>adjective</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effort</td>
<td>-ɔs</td>
<td>telic intransitive</td>
<td>2</td>
<td>agent and patient</td>
</tr>
<tr>
<td>Middle</td>
<td>-əŋ</td>
<td>telic intransitive</td>
<td>1</td>
<td>agent (patient optional in oblique)</td>
</tr>
<tr>
<td>Antipassive</td>
<td>-ola? / -els</td>
<td>telic intransitive</td>
<td>1</td>
<td>agent (patient optional in oblique)</td>
</tr>
<tr>
<td>Control</td>
<td>-sat</td>
<td>control transitive</td>
<td>1</td>
<td>agent/patient</td>
</tr>
<tr>
<td>reflexive</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-control</td>
<td>-ŋat</td>
<td>non-control transitive</td>
<td>1</td>
<td>agent/patient</td>
</tr>
<tr>
<td>reflexive</td>
<td></td>
<td>or atelic intransitive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>-tal</td>
<td>control transitive</td>
<td>1</td>
<td>agent/patient</td>
</tr>
<tr>
<td>reciprocal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-control</td>
<td>-k'əl / -wəl</td>
<td>non-control transitive</td>
<td>2</td>
<td>agent/patient</td>
</tr>
<tr>
<td>reciprocal</td>
<td></td>
<td>or atelic intransitive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Passive</td>
<td>-əŋ</td>
<td>any transitive</td>
<td>1</td>
<td>patient or causee (agent optional in oblique)</td>
</tr>
<tr>
<td>Redirective</td>
<td>-si</td>
<td>transitives compatible</td>
<td>2</td>
<td>agent and benefactive/dative object (patient optional in oblique)</td>
</tr>
<tr>
<td>applicative</td>
<td></td>
<td>with a benefactive or</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>dative applied object</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relational</td>
<td>-ŋiy</td>
<td>transitive verbs of</td>
<td>2</td>
<td>agent and goal/stimulus (patient optional in oblique)</td>
</tr>
<tr>
<td>applicative 1</td>
<td></td>
<td>facial expression</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relational</td>
<td>-nəs</td>
<td>transitive verbs of</td>
<td>2</td>
<td>agent and goal</td>
</tr>
<tr>
<td>applicative 2</td>
<td></td>
<td>motion</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In §3.5 I will split these suffixes into two types: one which changes the lexeme’s event structure and is inside grammatical aspect, and one which does not change the lexeme’s event structure and is outside grammatical aspect.

3.4 Aktionsart

The type of SENĆOŦEN morphology I will be focussing on in this thesis is morphology which derives a lexeme with a new situation type from its base, but does not affect the lexeme’s valence. In this section I include the morphology found in my fieldwork examples and discussed further in chapters 4 and 5: resultative, -sat inchoative, txʷəɬ- inchoative, and
persistent. The last of these is not discussed in detail in the following chapters, but it is found in several examples throughout the thesis.

3.4.1 Resultative

In chapter 4, I will provide further evidence for Kiyota’s (2008: 46) claim that the resultative prefix s- derives individual-level states from stage-level situations. It is only used with telic verb bases (unaccusatives) and is always intransitive, expressing only a patient subject (with no optional agent).

(3.197) a. \( \textbf{ñe}, \) \( \textbf{tfe} \) \( \textbf{ne} \) \( \textbf{ti} \)
\( k=\text{hat} \) \( t=\text{no} \) \( n=\text{ta} \)
spill[PFV] GNRL.DET 1SG.POSS tea
‘My tea got spilled.’ (6.22)

b. \( \textbf{scol,el} \) \( \textbf{tfe} \) \( \textbf{k}=\text{h} \)
\( s=k=\text{a} \)\( \text{a} \)
RES-spill\RES GNRL.DET water
‘The water’s already spilled.’ (6.21.2)

(3.198) a. \( \textbf{l}=\text{sete} \) \( \textbf{ñi\text{ll}} \) \( \textbf{tfe} \) \( \textbf{ne} \) \( \textbf{s\text{c}a\text{\text{c}}} \)
\( l=a=\text{ta} \) \( k=\text{h} \) \( t=\text{no} \) \( n=\text{sc\text{e}c} \)
GNRL.AUX=PRS.DIR.EV appear[PFV] GNRL.DET 1SG.POSS friend
‘My friend turned up way over there.’ (10V.84a, 13.131)

b. \( \text{jan} \) \( \text{u} \) \( \text{scj,we}\text{l,ol} \) \( \text{tfe}\text{n} \) \( \text{sc\text{a}} \)
\( \text{\text{\text{c}}\text{\text{e}}\text{n} \) \( ?\text{\text{u}=s-k=\text{r}=\text{\text{w}}\text{\text{a}l}=\text{a}\) \( t=\text{no} \) \( s=\text{\text{\text{c}}\text{\text{e}}\text{\text{y}}} \)
really CONTR=RES-RES=appear=LIM GNRL.DET;2POSS NMLZ-work
‘Your work’s just showing.’ [i.e., it has appeared and is now showing] (32.4)

(3.199) a. \( \text{ya}, \) \( \text{le,} \) \( \text{sen} \) \( \text{ta} \)
\( y=e=\text{lo}=\text{son} \) \( \text{t=\text{\text{e}}} \)
go=PST=1SG.SBJ go.on.top[PFV]
‘I went up.’ (6.24b)

b. \( \text{stato,} \) \( \text{tfe} \) \( \text{ka\text{\text{c}}} \) \( \text{e} \) \( \text{tfe} \) \( \text{let\text{a}m} \)
\( s=t=\text{a}=\text{\text{\text{a}}} \) \( t=\text{\text{e}} \) \( q=\text{eq} \) \( ?=\text{\text{\text{c}}} \) \( t=\text{\text{\text{c}}} \)
latem
RES-RES=go.on.top GNRL.DET baby OBL GNRL.DET table
‘The baby is on the table.’ (6.24)

Montler (1986) analyses forms like \( sk=\text{alata} \) in (3.197a) as containing a stative prefix s-, a resultative which is formed with non-concatenative morphology (ablaunt in 3.196 and reduplication in 3.197-3.198), and a durative suffix -\( \text{\text{\text{a}}} \). However, in previous work (Turner 2006, 2007), I provided evidence that the shape resulting from ‘ablaunt’ and the suffix -\( \text{\text{\text{a}}} \) is the regular shape of imperfectives of CC stems (see also §3.1 above). In addition, I argued that the stative prefix s- is found on all resultatives, and is only found
with resultatives. Forms listed as resultative by Montler (1986) without an s- prefix are actually imperfectives; forms listed with s- and no internal imperfective-like stem are nominalisations. The approach I took in (2006, 2007) was to posit a resultative construction consisting of a stative prefix and an imperfective base, which is both formally and semantically compositional. However, the evidence for semantic compositionality whereby resultatives are formed on imperfectives is weak; therefore, in this thesis I take the approach that imperfectives and resultatives share a stem shape but have no semantic relationship.

Although I have found no further evidence for my previous claims regarding the semantic compositionality of resultatives, I have found further evidence that resultatives and imperfectives have the same shape. Many of the resultative listed in Turner (2006, 2007) are of the suffixation+vowel change shape, because resultatives are only found on unaccusative bases, many of which are roots with the perfective shape CoC. I have since found more examples of resultatives with the reduplicated (3.200) and contrastive schwa insertion (3.201) shape. For these two examples I do not have an example of the verb root, and do not know if it can occur on its own; hence I’ve contrasted the resultative with the transitive from which we can extrapolate the roots as *miloč (3.200) and *xtoy (3.201).

(3.200) a. MILEJET TFE ICS TFE ŠUCE TFE LISENS...
miloč-st tó iks tó šuk*ó tó lisans
get.mixed-C.TR[PFV] GNRL.DET egg GNRL.DET sugar GNRL.DET raisin
‘Mix eggs, sugar, raisins...’ [describing making muffins] (17.22)

b. SM1,MELJ TFE SPEW SEPLIL
s-mi-molč tó spax* səplil
RES-RES-get.mixed GNRL.DET flour bread
‘The flour’s mixed; the flour was already mixed.’ (23.1)

(3.201) a. XTIT SEN LO,
xtoy-t=san=lo? TFE COFI
get.prepared-C.TR[PFV]=1SG.SBJ=PST GNRL.DET coffee
‘I made coffee; I was going to make coffee.’ (18.22a, 46.41)

b. ÁłE TÍ, SXETI, TFE COFI
?ešo=ti? s-xtøy tó kafí
GNRL.AUX=PRS.DIR.EV;CONTIN RES-get.preparedGNRL.DET coffee
‘The coffee’s ready.’ (24.37a)
I will continue to refer to the forms in this section as resultatives rather than statives, even though the prefix s- has cognates in several Salish languages, and is normally called stative. Other descriptions suggest it is only used with resultative meaning in some Salish languages. The SENĆOTEN (probably Straits) resultative seems to differ from resultatives in some other Salish languages in that it is restricted in its distribution to telic bases. It also differs from many of the other bases in that it makes use of an imperfective stem shape, although in Halkomelem the resultative also involves non-concatenative morphology such that the stem shape is sometimes identical with imperfective (Galloway 1993, Suttles 2004).

3.4.2 Inchoative -sat

In §3.1.1.2, I argued, following Gerdt (2000), Montler (1986), and Kiyota (2008) that the suffix -sat has two distinct uses. In that section, I focussed on the reflexive -sat. Here are a couple more examples of the inchoative -sat. The form of the inchoative is fairly straightforward. It retains its full vowel /a/ only when the base it attaches to has no full vowel of its own (3.202), in which case the suffix is stressed; otherwise, the /a/ of -sat reduces to schwa (3.203) and the suffix is unstressed.

(3.202) a. ṭəxʷ
   'hard, strong, solid, tough' (Montler 1991: 45, 51, #879, 898, 1009)

b. SKÁS TFE SEPLIL ENON U TEXSOT
   sqe-s təə sqəlil ?ənən ?uʔ= hrs-x-sat
   'Take out the bread. It's getting too hard.' (37.27)

(3.203) a. pqʰeʔ
   'rotten wood' (Montler 1991: 20, #429)

b. PKÁ,SET SE, TFE SKELÂLNEW
   pqʰeʔ-sat=sʔ?
   təə sqələn̓əxʰ
   rotten-INCH[PFV]=FUT GNRL.DET tree
   'The tree's going to turn rotten (i.e., decompose).' (23.56)

The inchoative suffixed verbs will be discussed in §4.1.2.1.
3.4.3 Inchoative $tx^\omega$-

There is another formative which is used to derive inchoative events, the prefix $tx^\omega$-.

Kiyota (2008) shows how verbs containing $tx^\omega$- behave like verbs containing -$sat$, at least with respect to verbs derived from individual-level states. This is why I depart from Montler’s (1986) terminology: he calls this suffix the *mutative*, while I call it an *inchoative*.

The two inchoatives are used with similar kinds of meanings. However, they differ in their distribution: while -$sat$ is restricted to adjectival bases representing underived individual-level states, $tx^\omega$- is used also with resultatives, verbs, nouns, nominalised verbs, and other functional predicates like negation, predicative pronouns, numerals, adverbs, and wh words. Below are examples with an imperfective verb (3.204), with an adverb (3.205), and with the predicate used for negation (3.206); further examples are found in §4.1.2.2.

(3.204) $T \ W \ N E N E Y E N E S$

$tx^\omega$-nə-ŋəyəŋ-əs
INCH-IPFV-smile-3SUB
‘It left him/her with a big smile.’ (9V.23n, 13.96)

(3.205) $T \ W \ E \ H I \ S \ E N \ O L,$

$tx^\omega$-hay=son=ʔal
INCH-alone[PFV]=1SG.SBJ=LIM
‘I’m the only one left.’ (10V.71b)

(3.206) $T \ W \ E W E S$

$tx^\omega$-ʔəwə=s
INCH-NEG=NMLZ long.time COM=appear[PFV] GNRL.DET flower
‘It won’t be long and the flowers will show.’ (23.52)

Notice that the inchoative prefix sometimes has the form [$tx^\omega$] and sometimes [$tx^\omega$]. Montler (1986: 48) treats the prefix as /$tx^\omega$//. The only examples with [$tx^\omega$] appearing in his description are resultatives, so he analyses the schwa as part of the stative prefix (p. 44), which does have the form [ʔas] in some other Salish languages. However, the schwa

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37 I do not know why the suffix [-as] is used here. A suffix of that form is used for 3rd person ergative, 3rd person subordinate subject and 3rd person possessive (which is also used in subordinate clauses; see (3.19-3.22) in §3.1.1). Perhaps this is somehow interpreted as a subordinate clause. I will have to review the context in which it arose in order to see why this might be the case.

38 Montler (2003: 120) shows that there is a syntactic difference between *hay* ‘finish’, which he classifies as an auxiliary, and *hay* ‘alone’, which he classifies as an adverb.
appears with other bases as well, like the adverb above and the individual-level state in the following.

(3.207) JÁN U TWE QÁ,LES TFE SÇÁCEL
čen ?u?=tx*o-K*elos tθa sk*ečal
really CONTR=INCH-hot[PFV] GNRL.DET day

‘The days are getting warmer.’ (37.15)

It seems that the form of the inchoative prefix is not phonologically or morphologically predictable.

Jacobs (2007) considers the distribution of the cognate txw in Skwxwú7mesh\(^{39}\), and argues that it indicates that the event was caused by someone/something other than the grammatical subject. This is based on the fact that Skwxwú7mesh txw is found with events and has a reading where the participant indicated by the subject performs some action that they did not originally intend to perform, or accidentally or suddenly performs the action.

An example is given here:

Skwxwú7mesh:
(3.208) na men txw mikw'-int-as ta lhxénpten
RL just OOC clean-DRV-3ERG DET floor
‘He decided to wash the floor (even though he didn’t want to).’ (Jacobs 2007: 262-263)

Jacobs (2007: 279-281) likens this use of txw to the ‘out of control’ morphology in Interior Salish languages, specifically comparing it to St’àl’imcets. The translations of sentences with the inchoative prefix in SENĆOŦEN and/or the situations they describe are consistent with Jacobs’s characterisation of Skwxwú7mesh txw. (3.209), for example, was used to describe a scene where a woman accidentally knocks her orange into the sink while she’s washing dishes. Then she shakes it off before commencing to peel and eat it. She obviously did not originally intend to shake the orange, but is obliged to do so since it’s now wet.

(3.209) TWÉ WISETES TFE OLENCES
tx*o-x*is-ot-as tθa ?alänčas
INCH-shake-C.TRUPFV-3ERG GNRL.DET orange
‘She’s shaking the orange.’ (10V.69g)

More work on this is required to see how close the two languages are in this respect.

\(^{39}\) Kuipers (1967: 116) treats Skwxwú7mesh txw as a prefix. However, Jacobs (2007: 257) notes that he has found an example where a clitic intervenes between txw and the verb to which it attaches. I am following Jacobs in writing it as a separate word.
3.4.4 Persistent

There may be other suffixes in SENCOTEN which affect event structure but have not been considered in detail in my research for this thesis. One in particular which occurs in a few examples in my fieldwork recordings is the *persistent* suffix -i. Montler (1986: 54) calls it a ‘parasitic morpheme’, because it only ever appears right before another suffix which normally contains a schwa, like the control transitive -ot, the ergative -as, or the middle -ən. Among the sentences appearing in my fieldwork recordings, the persistent is generally found with the three verb roots k^on ‘see’, k^on ‘grasp’, and xdc ‘come to know’, where the persistent verbs are ‘watch’, ‘hold’, and ‘know’. (3.210) is an example with ‘hold’. The persistent is also used with a verb meaning something like ‘be awaited’ (3.211). I have only seen examples of this with the antipassive (a) and the persistent (b), so I am unsure of the root meaning, if mako does indeed occur as a root. There is a quantifier mako ‘every’, but this seems semantically unconnected.

(3.210) a. ĖENET TFE OLENČES
k^on-ot tτα ?alančas
grasp-C.TR(PFV) GNRL.DET orange
‘She grabbed/took the orange.’ (10V.69d)

b. ĖEN,TIS OL,
  TFE SKO,KO,S
k^on-t-i-s=ta tτα s-q*a?q*a-s
grasp-C.TR-PERSIS(PFV)-3ERG=LIM GNRL.DET NMLZ-drink-3POSS
‘She’s just holding her drinks.’ (11V.161c)

(3.211) a. MEQELO, TE S-LÁNI ET Claire
  mako-ala? tω slenay ?ο=λ Claire
be.awaited-ANTIP(PFV) FEM.DET woman OBL=PN.DET Claire
‘The lady’s waiting for Claire.’ (23.75a)

b. MEQETI,EN TE Claire E TFE STIČ
  mako*-ot-i<τ>q tω Claire ?o tτο stič
be.awaited-C.TR-PERSIS<IPFV>-PASS FEM.DET Claire OBL GNRL.DET bus
‘The bus is waiting for Claire.’ (23.75c)

The persistent is also found with the middle and the suffix -ot. This is the suffix Montler (1986: 56) calls *durative*, but which is almost always found as an obligatory part of the imperfective shape for CoC bases (§3.2).
It appears that it has some overlap with the imperfective, and it may be that all verbs with the persistent suffix are in the imperfective aspect. It is difficult to tell based on the form in (3.212b) whether the verb is in the perfective or the imperfective. I do not have any contrasting perfective and imperfective examples containing the persistent suffix.

3.5 Aspect in relation to aktionsart and valence-changing morphology

In this section I will argue that aspect is distinct from both aktionsart and valence-changing morphology. Above, I treated aspect as inflectional and aktionsart and valence-changing morphology as derivational. This also follows the treatment of these categories by two previous works on Salish morphology (N. Mattina 1996, Willett 2003). I will start this section in §3.5.1 by showing that aspect is orthogonal to valence-changing morphology and aktionsart. In §3.5.2 I go through typologically motivated criteria for inflection and derivation and argue that aspect is inflectional while valence-changing morphology and aktionsart are derivational. In §3.5.3 I show that the formal realisation of aspect versus valence-changing morphology and aktionsart largely mirrors their morphological relationship.

3.5.1 Aspect as distinct from valence-changing and aktionsart morphology

Grammatical aspect and valence-changing morphology are orthogonal. Every kind of valence-changing morphology can appear with either aspect, as can verbs lacking valence-changing morphology (both unergative and unaccusative). Examples of unergatives, control transitives, and middles in both aspects have already been shown throughout this section, and in §3.3.6 I showed that the antipassive suffix has both perfective and imperfective forms. Other control forms also take both aspects. (3.213)
through (3.215) show a control reflexive, a control reciprocal, and a control passive in each aspect.

(3.213) a. \( C_E L, E S E T \) TFE \( T_A, E C E L \)
\( k^*o^t-\)sat \( t\theta \) tey\( \alpha k^*\alpha \)
spill-C.TR\PFV-C.REFL GNRL.DET race.canoe
'The canoe's going to tip over.' (2.50)

b. I, \( C_E L, S E T \) TFE \( T_A, E C E L \)
\( ?i?\)k-G \( t\theta \) tey\( \alpha k^*\alpha \)
CONTIN-spill-C.TR\;C.REFL\IPFV GNRL.DET race.canoe
'The canoe is on the verge of tipping over.' (5.2)

(3.214) a. k\(~\)in-t\(~\)
fight-C.TR\;C.RECP[PFV]
'They fought.' (Montler 1986: 117)

b. k\(~\)i\(~\)\~\)wan-t\(~\)
IPFV\~fight-C.TR\;C.RECP
'They fought.' (Montler 1986: 117)

(3.215) a. TXETEN OL, HÁLE
\( \theta_\chi-\)at-\( \eta_l=?_\alpha=\)hel\( \alpha \)
get.pushed-C.TR\\PFV-PASS=LIM=2PL
'Hey you folks, this got pushed.' (4.7)

b. I TXETEN
\( ?i?-\theta_\alpha-t-\eta_l \)
CONTIN-get.pushed-C.TR\\IPFV-PASS
'It's getting pushed.' (5.7a)

Turner (2007) and Kiyota (2008) both suggest that unaccusatives cannot take imperfective aspect, and Kiyota tentatively extends that to all achievements. However, I have now found many examples of unaccusatives and non-control transitives in the imperfective aspect. In fact, I believe that all unaccusatives and non-control forms have the potential to take both aspects. That is, from the point of view of morphology, there are no restrictions. The examples in (3.216)-(3.220) show an unaccusative, a non-control transitive, a non-control reflexive, a non-control reciprocal, and a non-control passive, respectively, in both aspects.

(3.216) a. LET TFE ŠSTEM,ČES
\( l\alpha^* \) t\( \theta \) štan\( k^*\alpha \)
fil[P]V GNRL.DET car
'The car is full.' (Fieldwork 2006)
b. I LÁTEL TFE NE Á,LEN
?i?=let±na? CONTIN=fill\PFV GNRL.DET 1SG.POSS house
‘My house is getting full.’ (44.8)

(3.217) a. TECNOW SW CE, TFE ŠXEL,ÁL,S
tak*=-nax*=sx*=k*±a? t=±o get.broken-NC.TR<IPFV>=2SBJ=PST.DIR.EV GNRL.DET pencil
‘You accidentally broke the pencil.’ (2.32)

b. YOT SW OL, U, TECNOEW TFE ŠXEL,ÁL,S
‘You’re always breaking the pencil.’ (2.33)

(3.218) a. MÁCELNOHET SEN SE
mek*=ol-na-ŋat=son=so? get.hurt-NC.TR[PFV]-NC.RECP=1SG.SBJ=FUT ‘I’m gonna hurt myself.’ (35.5)

b. YOT SEN OL U MÁ,ME,CE,ELN,OQ,ET

(3.219) a. KELNECEL SW
q*=ol-na-k=ol=sx=
speak-NC.TR-NC.RECP[PFV]=2SBJ ‘You go and talk to him/her.’ (10V.94b)

b. KEL,NE,WEL E SW
q*=ol-na-wol=?a?=sx=
speak-NC.TR-NC.RECP[PFV]=Q=2SBJ ‘Were you talking to each other?’ (V2.94, 10V.94)

(3.220) a. LETNON TFE šKO,TEN
let*=-na=q get.full-NC.TR-PASS[PFV] GNRL.DET bucket
‘They filled the bucket up without you knowing.’ (33.21)

b. LETNO,EN TFE šKO,TEN
let*=-na?><?a>? get.full-NC.TR-PASS<IPFV> GNRL.DET bucket
‘They’re in the act of filling the bucket up.’ (33.22)

More examples are found throughout chapters 4 and 5. Although there is no morphological restriction on aspect with unaccusatives and non-control forms, there is still a tendency for speakers to reject imperfectives of these forms in elicitation sessions, and they are infrequent in texts (chapter 5). I suggest that some achievements are semantically incompatible with imperfective because they are truly punctual, while others are just
pragmatically odd, since they focus on the culmination of events. This is discussed further in chapter 4.

The other valence-changing morphology also appears with both aspects. (3.221) through (3.223) show a causative, effort, and a causative passive with an applicative.

(3.221) a. I,TOW SEN TFE EN SLÁ,LE,SET
?o-y-tasu=san thɔ ʔon s-le-le=sat
good-CAUS<PFV>=1SG.SBJ GNRL.DET 2POSS NMLZ-IPFV-get.fixed-C.TR;C.REFL
'I like what you’re doing.' (37.38)

b. I,TO,EW SEN TFE EN SLÁ,LE,SET
?o-y-tauʔ=ssan thɔ ʔon s-le-le=sat
good-CAUS<IPFV>=1SG.SBJ GNRL.DET 2POSS NMLZ-IPFV-get.fixed-C.TR;C.REFL
'I’m starting to like what you’re doing.' (37.39)

(3.222) a. ČOČES TTFN, SKÁL, čak*as thɔŋ sq*el
use-EFF<PFV> GNRL.DET;2POSS NMLZ-speak
'Use your language.' (5.0d)

b. ČE,O,WES TTFN, SKÁL, č<aw*as thɔŋ sq*el
use-EFF<IPFV> GNRL.DET;2POSS NMLZ-speak
'Keep using your language.' (5.0e, 9V.2a)

(3.223) a. ELENISTEN TFE PELEC
?o-tan-i-ʔen thɔ pɔlak
eat-REL-CAUS<PFV>-PASS GNRL.DET Philip
'Philip got fed.' (23.136a, 27.24)

b. ELENISTEN TFE METULIYE
?o-tan-iʔ-ʔen thɔ matuliya
eat-REL-CAUS<IPFV>-PASS GNRL.DET Victoria
'Victoria’s getting fed.' (27b.7)

So we see that valence-changing morphology is orthogonal to aspect and that there are no grammatical restrictions regarding the co-occurrence of the two.

Aktionsart and aspect are also basically orthogonal. Both of the inchoatives can occur in both aspects. Example (3.224) gives a suffixed inchoative in perfective and imperfective, and (3.225) gives a prefixed inchoative in both aspects.

(3.224) a. QÁS,SET
k*es-sat
hot-INCH<PFV>
‘It’s getting hot; it got hot.’ (20.7d, 34.20)
b. I QÁQES,SET
?iʔeʔeʔ̌<še-sít
CONTIN-IPFV~hot-INCH
‘It’s getting warm.’ (17.95)

(3.225) a. TWE HÍ SEN OL,
tx*ǝ-hay=san=?al
INCH-alone[PFV]=1SG.SBJ=LIM
‘I’m the only one left.’ (13.120)

b. TWE HEHO,I SEN OL,
tx*ǝ-haʔ=haʔ=san=?al
INCH-IPFV~alone<IPFV>=1SG.SBJ=LIM
‘I’m the only one left.’ (13.120)

There is not very much data with the persistent aspect, so I do not have any examples in both perfective and imperfective aspects.

Resultatives, however, only occur with one form, and this looks like the imperfective form. One approach to take, given their formal similarity, is to propose that resultatives are built on imperfectives. This is the approach I took in Turner (2007), where the resultative is analysed as a construction:

RESULTATIVE = STATIVE + verb[IMPERFECTIVE]

However, the semantic connection between the SENÇÔTEN imperfective and resultative is tenuous. Most of the resultatives are derived from verb bases which are rare in the imperfective (unaccusatives) (§5.2).

Another approach is to say that aspect does not apply to resultatives, and that resultatives simply have the same stem shape as imperfectives. This approach is superior in that it does not rely on a semantically decompositional analysis of resultatives for which there is little independent evidence. It is also superior because it is supported by independent evidence. Individual-level states in SENÇÔTEN also lack a distinction between perfective and imperfective forms. Kiyota (2008) shows that resultatives behave like individual-level states in terms of his situation type tests. Therefore, it makes sense that resultatives would not distinguish perfective and imperfective if they are also individual-level states.
In §5.2, I will suggest we can go further and adopt Montler's (2003) claim that individual-level states constitute a separate lexical part of speech, adjectives. Then the generalisation is that adjectives do not distinguish aspect. Neither do nouns. Thus, I hypothesise that the morphosemantic feature of aspect only applies to verbs. Also, if resultatives derive adjectives, and aspect does not derive a new part of speech, they belong to different systems. Thus, although aspect and resultative are not orthogonal, they are distinct.

3.5.2 Inflection and derivation

One of the main points made in this thesis is that we can identify two distinct morphological categories in SENČOFEN which are aspectual in the broad sense: grammatical aspect and aktionsart. In this I am following very closely the claims made by N. Mattina (1996) for Okanagan in her distinction between sentential aspect (grammatical aspect) and stem aspect (aktionsart and valence-changing morphology). However, there is at least one way in which I depart from Mattina's approach. She argues that stem aspect does not affect event structure in Okanagan (p. 126). So, for example, a state remains a state regardless of the stem aspect which is applied to it. This may be the case for Okanagan. However, the work on control in Central Salish languages (Watanabe 2003; Bar-el, H. Davis & Matthewson 2005; Kiyota 2008) has shown that control and non-control transitives formed on the same verb base behave differently with respect to culmination entailment. Also, as Kiyota (2008) shows, states can be derived from non-states and non-states from states (through resultative, inchoative, middle, causative). This is explored further in chapter 4.

This section looks at the morphological differences between aspect and aktionsart in SENČOFEN. I argue that grammatical aspect is an inflectional feature in SENČOFEN, while aktionsart morphology is more derivational, though not as derivational as the affixes considered in §3.1.2.1. I will go through the various properties used to distinguish inflectional from derivational morphology in the literature. A good summary is given Booij
(2000), citing various properties used by different authors; I will also make use of some criteria discussed by Bauer (2004) and Corbett (2010a). These are listed here:

Table 3.5: Criteria for inflection vs. derivation (based largely on Booij (2000))

<table>
<thead>
<tr>
<th>Inflection</th>
<th>Derivation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obligatory</td>
<td>Not obligatory</td>
</tr>
<tr>
<td>Relevant to syntax/adds morpho-syntactic feature</td>
<td>Semantic relevance to stem/adds semantic predicate</td>
</tr>
<tr>
<td>Productive</td>
<td>Not productive</td>
</tr>
<tr>
<td>Not recursive</td>
<td>Recursive</td>
</tr>
<tr>
<td>Paradigmatic</td>
<td>Not paradigmatic</td>
</tr>
<tr>
<td>Available to all lexemes</td>
<td>Creates lexemes for nameworthy concepts</td>
</tr>
<tr>
<td>No syntactic category change</td>
<td>Syntactic category change</td>
</tr>
</tbody>
</table>

First, aspect is **obligatory** with respect to verbs (stage-level predicates). Each verb (with one or two exceptions) has two forms, shown in §3.1, one plain and one more complex. In §5.1, I will support the dominant analysis for Salish languages that the plain form is in the perfective aspect and the complex form is in the imperfective. Imperfective aspect is required when the speaker wishes to take an in-progress view of the situation, and is normally used in describing habitual situations. Kiyota (2008) gives some examples of punctual clause modification, which shows that perfective and imperfective aspects provide different interpretations of the temporal relation of events to the reference time provided by the punctual clause. In addition, imperfective is required for describing situations ongoing at the time of speech. This evidence shows that the perfective stem, although "plain" (not showing any overt signs of perfective morphology), is indeed in the perfective aspect. Thus, each verb must be either perfective or imperfective.

Aktionsart is not obligatory. In fact, most verbs cannot take resultative morphology, since it only appears on unaccusative bases. The inchoative suffix only appears on adjectival bases (individual-level states). The inchoative prefix is more widely

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40 For a small number of lexemes, there appears to be syncretism between perfective and imperfective. E.g., *yayay* ‘play’ has the shape of an imperfective, but is used for both perfective ‘He/she played/will play’ and imperfective ‘He/she is playing’.
distributed, since it seems able to be used with any lexeme in the language. Nonetheless, it
is not obligatory. Some adjectives normally take the inchoative suffix, and therefore do not
need the inchoative prefix. When I asked about the possibility of the prefixed inchoative in
(3.226), one speaker said that it was possible, but that people would really say (3.227).

(3.226) JÁN UTWE XÍT TFE SČÁCEL
cén ?u?="xɔ oyX t0o sk*ečal
really CONTR=INC-cool GNRL.DET day
‘The days have cooled down already.’ (37.17)

(3.227) JÁN UXIT,SO,ET TFE SČÁCEL
cén ?u?=xɔyX-}sa<ʔa=t t0o sk*ečal
really CONTR=cool-INCH<IPFV> GNRL.DET day
‘The days have cooled down already.’ (37.17)

In addition, the notion of inchoative (entrance into a state) is inherent to inchoative states
like lečɔd ‘get angry’ and telic intransitives like ʃ=ɔl ‘get roasted/baked’. Thus, it seems
that the inchoative is not necessary even to express an entrance into a state.

Valence-changing morphology is obligatory in one sense. All SENCOTEN
transitive sentences require the use of a transitiviser, and for some lexemes, this must be
the causative suffix. However, the choice between the control transitive and non-control
transitive suffixes is not grammatically obligatory, as both suffixes appear with the same
verbal bases in transitive clauses. The use of one of the transitives versus an unaccusative
with an implied agent or a middle with an implied patient also reflects speaker choice.
These affixes are however, in contrast with the passive suffix. The passive is arguably
obligatory in some contexts, since it is used to resolve a putatively illicit combination of a
third person subject with a first or second person object.

SENCOTEN aspect also does not align with the inflectional extreme of relevance
to the syntax, as it does not provide a morpho-syntactic feature. However, in this respect
SENCOTEN aspect behaves like aspect in other languages. Booij (1996) distinguishes
between contextual and inherent inflection, and only contextual inflection (agreement and
government) is relevant to syntax. Aspect is, in general, an inherent inflectional feature,
plays no role in the syntax, and is thus defined as morphosemantic, rather than
morphosyntactic by Corbett (2010b: 18). On the derivational end of this extreme is
morphology which is semantically relevant to the stem (Bybee 1985) or adds a semantic predicate (Spencer & Luis, cited in Corbett 2010a). Like aspect in other languages, SENCOTEN aspect does not change the event structure of a predicate, but rather relates the predicate itself to a reference time.

Aktionsart on the other hand, does affect the semantics of the stem in that it changes event structure. The resultative derives states from non-states and the inchoative derives non-states from states. As discussed at the beginning of this section, this is where I depart from N. Mattina (1996), who claims that “stem-level” aspect (aktionsart and valence-changing morphology) does not change event structure. Control also affects event structure, in that it specifies whether or not culmination is entailed by the predicate.

Passive morphology, again, is different. Passivisation does not change the semantics of the base, but just the argument structure of the clause. This has long been recognised in the literature (Siewierska 1984: 6-7) and seems to be the case for SENCOTEN as well.

I have not done any tests regarding productivity of aspect, aktionsart, or valence-changing morphology, but have found all three applying to borrowed words. The following are examples of English loans with imperfective and persistent (3.228), and imperfective and causative (3.229) morphology.

(3.228) **TETU,STINEŁ. SEN**

\[\text{to-tu<-st-i-g-oī=son}\]

\[\text{IPFV-toast<IPFV>-PERSIS-MID-DUR=1SG.SBJ}\]

LĀ,E TFE SAKEL SONU,SE

leʔə tə seq̕əl sanəwəsə

LOC.PREP GNRL.DET GO.OUT RES fire

‘I’m toasting it on an outside fire.’ (V2.155)

(3.229) **EWES S00ELTW**

\[\text{ʔwə=s skَا-u-kəl-tx}^\text{v}\]

\[\text{NEG=NMLZ IPFV-school-CAUS}\]

‘You’re not teaching them [schooling them].’ (V2.105)

This criterion needs to be investigated more thoroughly before any conclusions are drawn regarding productivity. It may be that some aktionsarten are more productive than others. Gerdts (2000: 152) suggests that the Halkomelem cognate of the -sat inchoative is not as
productive as the cognate of \( tx^{w}\). I do not know if this is the case with SENĆOŦEN, or if it is just more restricted regarding base type.

There is no indication that SENĆOŦEN aspect is recursive. Once a verb is inflected for aspect, it is not possible to inflect it again. This is difficult to tell if we just look at form. Perfective aspect is expressed by a plain stem, so it is impossible to see, formally, if it has applied twice. Some verbs appear to have two realisations of imperfective aspect, namely those discussed above with both glottal infixation and reduplication. However, nothing in the semantics of these clauses suggests that this is a double imperfective, and it is more likely the product of two historically distinct formatives coming together (resulting in double exponence). §3.2 above shows how both reduplication and glottal stop infixation are appropriate with verb bases containing a full vowel, rendering the imperfective stem of these bases unpredictable.

Aktionsart does not appear to be recursive either, but some valence-changing morphology is recursive. Gerds (2004) shows that in some morphological contexts, the Halkomelem causative can apply twice within the same word:

\[(3.230) \text{ni? can } \text{ixilas-st-onoq-stax}^w\]

\[\text{AUX ISG.SBJ stand-CAUS-PEOPLE-CAUS}\]

'I made him stand the people up.' (Gerds 2004: 772)

I do not know if these “double causatives” are possible in SENĆOŦEN too, but it is likely that they are, given the similarity between the two languages. Not all valence-changing morphology is recursive. One other potential recursive suffix is the middle. If we follow Gerds & Hukari (2006b) in treating the middle and passive suffixes as the same suffix, then it is recursive as well, since a causative can be derived from a middle, and then passivised. So for this criterion, we can at least say that there is no recursion in the aspect system, but some recursion among the valence-changing suffixes.

In addition, valence-changing and aktionsart affixes are stackable (as shown in §3.3.1). While not recursion, this does show a distinction between aspect on the one hand, and aktionsart and valence-changing morphology on the other.
SENÇOTEN grammatical aspect does appear to be paradigmatic, where the paradigm has two members: perfective and imperfective. As discussed in §3.2, it is appropriate also to talk about inflectional classes with regards to SENÇOTEN aspect, since its shape is not entirely predictable based on phonology and not at all predictable based on semantics or morphology. Generally, the ability to be organised into a paradigm is a criterion of inflectional morphology. However, it appears that we could create a paradigm of the aktionsarten and valence-changing morphology, as in the abstract “paradigm” in table 3.6 (containing a subset of the affixes).

Table 3.6: Valence-changing and aktionsart arranged paradigmatically: abstract

<table>
<thead>
<tr>
<th>Intransitive</th>
<th>x</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control transitive</td>
<td>x-t</td>
</tr>
<tr>
<td>Non-control transitive</td>
<td>x-n(ax*)</td>
</tr>
<tr>
<td>Causative</td>
<td>x-st(ax*)</td>
</tr>
<tr>
<td>Middle</td>
<td>x-ŋ</td>
</tr>
<tr>
<td>Resultative</td>
<td>s-X[imperfective shape]</td>
</tr>
<tr>
<td>Inchoative</td>
<td>x-sat</td>
</tr>
</tbody>
</table>

Notice, however, that when we consider real lexemes, this is not a good paradigm. There are many missing cells:

Table 3.7: Valence-changing and aktionsart arranged paradigmatically: examples

<table>
<thead>
<tr>
<th>Intransitive</th>
<th>kʷal ‘spill, tip over’</th>
<th>leččałq ‘get/be angry’</th>
<th>čałq ‘be big’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control transitive</td>
<td>kʷalot ‘pour it, tip it over’</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>Non-control transitive</td>
<td>kʷalnaxʷ ‘spill it, manage to tip it over’</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>Causative</td>
<td>-----</td>
<td>leččałtxʷ ‘make s.o. angry’</td>
<td>čałtxʷ ‘make it big’</td>
</tr>
<tr>
<td>Middle</td>
<td>kʷalŋ ‘fly’</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>Resultative</td>
<td>skʷalŋ ‘tipped over, spilled’</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>Inchoative</td>
<td>-----</td>
<td>-----</td>
<td>čałqsat ‘get big’</td>
</tr>
</tbody>
</table>

Most aktionsarten and valence-changing morphology is restricted with respect to which bases it appears on. N. Mattina (1996) treats the three columns in table 3.7 as three different base classes which form three distinct derivational paradigms, meaning that
transitions always take one set of affixes, processes one set, and entities another.\footnote{I do not have an example of an entity in table 3.7 but the individual-level state in the final column illustrates the same point.} However, when we look at an individual verb base, it is not always predictable which affixes it will occur with. This is shown for Halkomelem in the recent work on combinatorial properties of affixes and verb roots by Gerdts (2006) and Gerdts & Hukari (2006a).

This brings us onto \textit{nameworthiness}, a criterion proposed by Corbett (2010a: 146, citing Mithun & Corbett 1999). The idea is that derivational morphology applies when necessary. This appears to be the case with SENĆOTEN aktionsart and valence-changing morphology but not aspect. In SENĆOTEN, as in Halkomelem (Gerdts & Hukari 2006a), some verb bases can act like unergatives and unaccusatives and take both control transitive and causative suffixes, while some verbs are restricted to one or the other. Some other verb bases have not been found without transitive morphology. H. Davis & Matthewson (2009: 1103) discuss Gerdts & Hukari's finding that some verb bases only ever appear with transitive morphology. They suggest that this results from the lack of an appropriate pragmatic context, and that if the appropriate context could be supplied, the bare unaccusative base would be used.

SENĆOTEN grammatical aspect does not appear to change the \textit{syntactic category} (i.e., part of speech) of a lexeme, while aktionsart and some valence-changing morphology can. In §4.1 I will outline some arguments made by Montler (1993, 2003) for a verb-adjective distinction in SENĆOTEN. Given these arguments and the behaviour of the various aktionsarten and valence-changing morphology with respect to Kiyota's (2008) situation type tests, there is evidence that resultatives derive adjectives from verbs and the inchoative suffix derives verbs from adjectives. In addition, the inchoative prefix, the causative suffix, and the middle suffix can all derive verbs from nouns, adjectives, and other parts of speech.
The following table summarises the behaviour of aspect, aktionsart, and valence-changing morphology with respect to the various inflection-derivation criteria considered in this section. Since the passive behaves differently from some of the other valence-changing morphology, I have given it a separate column.

Table 3.8: Inflection-derivation applied to SENČOTEN

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Aspect</th>
<th>Aktionsart</th>
<th>Valence-changing</th>
<th>Passive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obligatoriness</td>
<td>obligatory</td>
<td>not obligatory</td>
<td>not obligatory</td>
<td>obligatory in some contexts</td>
</tr>
<tr>
<td>Relevant to syntax/adds morpho-syntactic feature vs. semantic relevance</td>
<td>neither</td>
<td>semantic relevance</td>
<td>semantic relevance</td>
<td>neither</td>
</tr>
<tr>
<td>Productivity</td>
<td>productive</td>
<td>productive</td>
<td>productive</td>
<td></td>
</tr>
<tr>
<td>Recursivity</td>
<td>not recursive</td>
<td>not recursive</td>
<td>some recursivity possible</td>
<td></td>
</tr>
<tr>
<td>Paradigmatic</td>
<td>paradigmatic</td>
<td>not paradigmatic</td>
<td>not paradigmatic</td>
<td></td>
</tr>
<tr>
<td>Nameworthiness</td>
<td>n/a</td>
<td>applies to nameworthy concepts</td>
<td>applies to nameworthy concepts</td>
<td></td>
</tr>
<tr>
<td>Syntactic category change</td>
<td>no change</td>
<td>change with some affixes</td>
<td>change possible with some affixes</td>
<td></td>
</tr>
</tbody>
</table>

SENČOTEN aspect, aktionsart, and valence-changing morphology are not distinguished in terms of all of the criteria considered. However, the general pattern is that aspect behaves more like inflection and aktionsart and valence-changing morphology behaves more like derivation.

The passive is a special case, which behaves more like inflection with respect to some of the categories. This makes it difficult to decide whether passivisation is inflectional or derivational. This difficulty is by no means a unique property of the SENČOTEN passive, and sparked much debate in the syntax literature of the 1970s on whether passives are lexically or syntactically derived (e.g., Wasow 1977, Bresnan 1982; also discussed in Siewierska 1984: 7). I do not wish to make any syntactic claims in this thesis. However, I do believe there is evidence to distinguish passive, reflexive, and reciprocal morphology from the rest of the valence-changing morphology in SENČOTEN. In addition to the properties discussed in this section, I will show in §4.3 that passive and reflexive
morphology does not change the situation type of a lexeme. So, for example, control and non-control transitives are generally distinguished in terms of telicity (weak telic/accomplishment vs. strong telic achievement), while control transitives and control reflexives behave the same as each other (they are both weak telic/accomplishments). In the next section, I consider the formal ordering of aspect, aktionsart and valence-changing morphology, which again shows a distinction among the valence-changing affixes.

3.5.4 Ordering of aspect, aktionsart, and valence-changing morphology

In Turner (2007), I argued that the imperfective applies not to verb roots but to verb stems, based on both formal and semantic criteria. By stem here, I am referring to the SENCOTEN equivalent of N. Mattina’s (1996) Okanagan verb stems: the verb with its derivational morphology, including valence-changing affixes. This speaks to one of the more controversial criteria for inflection vs. derivation: inflection is said to be outside of derivation in the prototypical cases, or further from the verb root. In a process view of morphology, we could say that that derivation applies to a word first, and then inflection. Booij (1994) has argued against this view, showing that some inflectional morphology can feed derivation (specifically inherent inflection, which does include aspect). In SENCOTEN, there is evidence that both aktionsart and valence-changing morphology relevant to situation type are both formally inside aspect. So, although this alone is not evidence that aktionsart and valence-changing morphology are more derivational than aspect (given Booij’s findings), it provides some additional support for the evidence introduced in the previous section.

As argued in Turner (2007), it is the shape of the verb stem and not the verb root alone which determines the shape of an imperfective. For example, since transitive suffixes are included in the verb stem, a transitive verb may have a completely different imperfective shape from its simple intransitive counterpart. This is illustrated with the verbs in (3.231-3.232). The intransitive stem shown in the perfective aspect in (3.231a)
indicates imperfective aspect with a change from [ɔ] to the full vowel [a] and the addition of [ɔt]. This is found in (3.231b).

(3.231) a. TEŒ SE, TFE ŠXEL,ÂL,S (stem: /tkʷ/; aspect: perfective)
   tʰᾰ kʰ=ɔ=t ς̣̃loë mediante
   'The pencil is going to break.'

   b. TOŒEL TFE ŠXEL,ÂL,S (stem: /tkʰ/; aspect: imperfective)
   tʰᾰ tʰᾰ lọ sx̣loë mediante
   'The pencil keeps breaking.'

The same verb root ¹tkʰ meaning ‘break’ is used in (3.232), but this time there is a different verb stem, one that includes the control transitive suffix -t. The aspect of the stem in (3.232) is indicated by the placement of schwa. In the perfective aspect (a) the schwa is found between the last two consonants of the word while in the imperfective (b), the schwa is found between the first two consonants.

(3.232) a. TŒET SW TFE ŠXEL,ÂL,S (stem: /tkʰt/; aspect: perfective)
   tʰṭ̃loë mediante
   'You break the pencil.'

   b. TŒET SW TFE ŠXEL,ÂL,S (stem: /tkʰt/; aspect: imperfective)
   tʰṭ̃loë mediante
   'You’re breaking the pencil.'

The change from (3.232a) to (3.232b) has been called metathesis (L. Thompson & M. Thompson 1969), but Leonard & Turner (2010) argue, following (Montler 1986), that the schwa is not part of the stem and thus this is not a true case of metathesis. The assumption made throughout the thesis is that most schwas in SENCOTEN arise predictably, whether through reduction of unstressed full vowels, epenthesis to avoid illicit consonant clusters, epenthesis to provide nuclei for words, or epenthesis to indicate grammatical aspect (Kinkade 1998; Shaw, Blake, Campbell & Shepherd 1999; Leonard & Turner 2010). Therefore, it is not significant in glosses like (3.232a) that the hyphen is placed to the left of the schwa, as the schwa does not belong to the root or the suffix.

Aktionsart also appears to be formally inside aspect. The resultative does not take aspect and I only have one example of a perfective-imperfective pair with the inchoative
prefix which does not provide good evidence one way or the other. However, the
inchoative suffix -sat affects the stem shape which determines which inflectional class the
stem will fall into. Imperfectives of all suffixed inchoatives, regardless of root shape, take
the glottal stop infix, which is placed after the stressed [a] in the suffix:

\[(3.233) \text{ČE}k,šO,ET \quad \text{TFE} \quad \text{SKÁL} \]
\[\text{č}q-sa<t\>q>t \quad \text{tθ} \quad \text{sq*el} \]
\[\text{big-INCH<IPFV> GNRL.DET NMLZ-speak} \]
\[\text{The meaning/news is still getting bigger.} \quad (30.19)\]

If it was the root shape which determined the inflection class of this lexeme, we would
expect the imperfective to fall in class I (vowel change and suffixation) and have the form
\[*čeq̂ₚsat.

There is one valence-changing suffix which appears to be outside of aspect
inflection. The control reflexive suffix -sat does not contribute to the stem shape which
determines inflectional class assignment. This is most clearly seen by contrasting the
imperfective -sat inchoative in (3.233) with the imperfective reflexive in (3.234). Recall
that the inchoative is argued to consist of a verb root plus the suffix -sat, while the reflexive
is a verb root plus the control transitive suffix -t plus -sat. This is reflected in the distinct
way I have been glossing inchoatives and control reflexives.

\[(3.234) \text{I, ČE}l,ŠET \quad \text{TFE} \quad \text{TA,ČE}l \]
\[?i?-k=el-sat \quad \text{tθ} \quad \text{teŷak*α} \]
\[\text{CONTIN-spill-C.TR;C.REFL<IPFV> GNRL.DET race.canoe} \]
\[\text{The canoe is on the verge of tipping over.} \quad (5.2)\]

The verb in (3.235) falls into inflection class II (contrastive schwa insertion), because it is
derived from the control transitive base k=elat ‘spill/tip it’, which has the imperfective form
in (3.236):

\[(3.236) \text{ČE}l,T \text{SW} \quad \text{TFE} \quad \text{K}O, \]
\[k=el-t=sx" \quad \text{tθ} \quad \text{q"α} \]
\[\text{spill-C.TR<IPFV>=2SBJ GNRL.DET water} \]
\[\text{You’re tipping the water out.} \quad (5.22)\]

If the reflexive did contribute to the base shape, we would expect the imperfective in
(3.236) to be *k=elasa?=t.

In §4.3, I will argue that reflexive formation does not affect the event structure of
the predicate to which it applies. This is also argued for the passive, and likely true of
reciprocals too, but they have not been investigated. This then looks like a parallel in the formal and semantic ordering of formatives and the morphological distinctions they express. Aktionsart, control, and probably middle and causative affect the shape of the stem with respect to aspect inflection and also affect the event structure of a predicate. Reflexive does not affect stem shape and does not affect event structure. It is not possible to tell whether passive morphology affects the stem shape that determines the form of perfectives and imperfectives. It consists of a single consonant -η, and any base it applies to is already minimally CCC. The extra -η would not put the lexeme into a different inflectional class, regardless of the base shape.

The fact that the shape of an imperfective, to the extent that it is phonologically determined, is affected by the shape of a verb stem and not a verb base is one I wish to emphasize here. Firstly, this is important to note because previous scholars have sometimes failed to take this fact into account in their phonological analyses of imperfectives (Demers 1974; Stonham 1994). Second, this fact makes my glossing of the non-concatenative imperfective rather tricky. The perfectives of class I, III, IV, and V stems are all clearly plainer than the imperfectives. Thus I represent them with the square brackets [ ] (see 3.231a). These are used in the Leipzig Glossing Rules for “non-overt elements”. Imperfectives using reduplication or inflexion are also fairly straightforward, and I indicate the imperfective using ~ for reduplication and <?> for inflexion.

Imperfectives using both suffixation of [ɔɪ] and vowel change, which always go together, are indicated with the backslash \ (see 3.230b). The Leipzig Glossing Rules suggest using this for non-concatenative stem changes. Both perfectives and imperfectives of class II stems, the ones involving contrastive schwa insertion, are equally complex. Thus, they are both indicated with the backslash (3.231 and 3.232).

Since the stem and not the root of derived forms determines inflection class assignment, I have decided to place the PFV or IPFV after the stem and not after the root. This applies to the infixed forms and the schwa insertion forms. Further inflectional
morphology can then be added outside of aspect, which I indicate to the right of the aspect gloss, as in the ergative suffix in (3.237):

(3.237) QEN,TES
\[{{\text{kon}}^{\prime}}t^{\prime}os}\]
see-C.TR\lPFV-3ERG
'looking at it' (17.11)

This is not a perfect solution, but I feel that it is the best way to represent the nature of aspect forms.

3.6 Chapter 3 conclusion

This chapter has served two purposes. First, it has provided some background on SENCÔFEN verb morphology. More substantively, I have made the following three claims regarding the morphological properties of SENCÔFEN aspect, valence-changing morphology, and aktionsart: 1) I have argued that grammatical aspect is an inflectional morphosemantic feature on verbs, consisting of the two values perfective and imperfective, and these two values are realised by different stem shapes, which are conditioned by a verb lexeme’s membership in one of five inflection classes. 2) I have argued that valence-changing morphology is divided into two types: valence-changing morphology that affects event structure and is thus more derivational, and valence-changing morphology which does not affect event structure (reflexive, reciprocal, passive) and is thus less derivational. 3) I have argued that SENCÔFEN has several productive derivational aktionsart formatives (resultative, -s\textit{at} inchoative, \textit{tx}\textsuperscript{\textit{ea}}- inchoative, and persistent) which are distinct from grammatical aspect.

At the end of the chapter, I showed that lexemes of all valence types can appear in either aspect, and that the inchoatives and the persistent aktionsarten can as well. The resultative is argued to derive adjectives from verbs and thus not to inflect for aspect at all. I went through several criteria for inflection and derivation and found consistently that grammatical aspect behaves more like inflectional morphology and valence-changing morphology and aktionsarten behave more like derivational morphology. Still, if we think
of inflection and derivation as a continuum, all three types of morphology are near the middle of the cline.

In the final section of the chapter, I provided evidence that the formal interaction of aspect, valence-changing morphology, and aktionsart largely mirrors its morphological interaction. Membership of a lexeme in an aspectual inflectional class is based partially on its stem shape. I have shown (following Turner 2007 and Leonard & Turner 2010) that the shape of a stem is important, not the shape of a root. This lexeme includes aktionsart morphology, and it also includes the valence-changing morphology which affects event structure. However, that valence-changing morphology which does not affect event structure is outside of aspect: it does not contribute to the stem shape which determines which inflectional class a lexeme will fall into for the purposes of aspect formation.

We end up with a picture of the SENÇOTEN verb which is very much like the representations of words in other Salish languages given by N. Mattina (1996) and Willett (2003), who both distinguish derivational aktionsart and valence-changing morphology from inflectional perfective and imperfective. The next two chapters focus on these two types of morphology, chapter 4 on aktionsart and valence-changing morphology, and chapter 5 on aspect.
Chapter 4  Predicate classification

This chapter investigates the role of productive derivational morphology (aktionsart and valence-changing morphology) in determining situation type in SENĆOŦEN. Work on English predicate classification has emphasised the role of arguments in the telic-atelic distinction, going back at least to the work of Verkuyl (1972) and Dowty (1979). As noted by H. Davis & Demirdache (2000), Salish languages are useful languages to investigate in this respect, since they contain rich systems of obligatory morphology indicating argument structure and argument type. This is touched on in previous work on Salish situation type, which argues that the control transitive suffix (or equivalent) in Skwxwú7mesh, Stát’imcets, and SENĆOŦEN derives accomplishments (which lack culmination entailments) from achievements (which have culmination entailments) (Matthewson 2004, Bar-el et al. 2005, Bar-el 2005, Kiyota 2008). Kiyota (2008) and Jacobs (fc) additionally examine the non-control transitive suffix in SENĆOŦEN and Skwxwú7mesh, showing that it maintains culmination entailments. Lastly, Kiyota (2008) argues that the resultative derives individual-level states, while the inchoatives derive stage-level states. However, the extent to which derivational morphology can predict situation type in Salish languages has not been fully explored. This chapter provides an extension of the previous work, by looking at a wider range of derivational affixes and their contribution to situation type. The chapter is also intended as a useful comparison between different approaches to predicate and lexeme classification in Salish languages.

In §4.1, I further my arguments from chapter 3 that the aktionsarten are not in the inflectional aspect system with perfective and imperfective aspects, by demonstrating that they affect the lexical semantics of the lexeme to which they apply. As argued for other Salish languages (Burton & H. Davis 1996, N. Mattina 1996), and following Binnick’s (1991) definition of aktionsarten, these focus on subparts of a situation. In doing so, they can have the effect of deriving a lexeme denoting an individual-level predicate from one denoting a stage-level predicate (resultative), or deriving lexemes denoting stage-level
predicates from those denoting individual-level predicate (inchoatives). Two
valence-changing suffixes, causative and middle, can also be used to derive stage-level
predicates. I summarise previous arguments for a distinct lexical class of verbs in Salish
languages, and particularly for distinguishing between verbs and adjectives in
SENĆOTEN. The changes from individual-level to stage-level predicates and vice versa are
thus also changes from non-verbs to verbs and vice versa. These changes are significant in
that they have an affect on both situation type and aspect. Only lexemes denoting
stage-level predicates (i.e., verbs) have an aspect distinction (chapter 5).

§4.2 looks at the situation type of intransitive verbs which are not derived from
transitives, focussing on verb roots. It compares two approaches to the classification of
intransitives: 1) unaccusativity, as developed for Halkomelem by Gerdtś ((1988) to
(2006)); and 2) situation type, as argued for in SENĆOTEN by Kiyota (2008). Kiyota
claims that intransitive achievements are unaccusatives, but does not define unaccusativity.
It is argued in §4.2 that Kiyota’s unaccusatives are indeed unaccusatives by Gerdtś’s
(2006) definition, and that Gerdtś’s unergatives, plus middles and other derived
intransitives carrying properties of unergatives, are either activities or inchoative states in
Kiyota’s (2008) classification. In chapter 2, I discussed the parallels between argument
structure and situation type semantics which have been noted in the general literature and
Given the parallels between Kiyota’s situation types and Gerdtś’s intransitive classes, it is
worth considering whether unaccusativity can be subsumed under situation type, as argued
for generally by Van Valin (1990). At this point, the question cannot be answered, since a
wide enough range of verbs has not yet been tested.

§4.3 looks at CONTROL in SENĆOTEN. The importance of control morphology to
situation type distinctions has been shown in work on other Salish languages which
focusses on event structure or situation types of predicates. This stems from the
observation (originally made by J. Davis (1978) for Comox) that control transitives in
various Salish languages do not necessarily indicate that the situation was successfully
completed, while non-control transitives do. Several authors suggest that control and
non-control morphology is an indicator of aspect or situation type in other Salish languages
(Hébert 1979, 1982; B. Carlson 1996; Watanabe 2003; Matthewson 2004; Bar-el et al.
2005). N. Mattina (1996) includes control vs. non-control distinctions in her stem aspects
(aktionsarten). Kiyota (2008) shows that SENĆOŦEN control transitives only implicate
culmination, while non-control transitives entail culmination. He also finds that control
transitives and non-control transitives differ in their interpretation with the SENĆOŦEN
words for ‘almost’. Thus, he claims that control transitives form a class of accomplishments
and non-control transitives are achievements (along with unaccusatives). This chapter
extends Kiyota’s tests to other control and non-control pairs: passives and reflexives. The
results of these tests provide evidence that situation type is affected by the distinction
between control and non-control, but is not affected by a difference in valence. For
example, control transitives and non-control transitives behave differently with respect to
the criteria tested, and thus are argued to fall into different situation types (accomplishment
vs. achievement), whereas control transitives and control reflexives behave alike with
respect to the criteria (both are accomplishments). This corroborates recent work by Jacobs
(fic) on Skwxwú7mesh.

4.1 Stage-level vs. individual-level predicates

This section looks at the stage-level vs. individual-level distinction in SENĆOŦEN. As
discussed in §2.1.1, stage-level states are states which denote temporary states-of-affairs,
and individual-level states denote more permanent qualities. This distinction is of particular
relevance to grammatical aspect, as I will argue that only stage-level predicates inflect for
aspect (perfective/imperfective). Montler (2003: 106) claims that “almost any word can be
marked for tense or aspect”. Although this is true for tense, as discussed by Jelinek (1995:
490) for Lummi, I have not found this to be true for aspect. The individual-level vs.
stage-level distinction is also relevant for aktionsart. In this section, I will be looking at the
resultative and two inchoatives, but there are a few others which may fall in this category.
This section will further Kiyota's (2008) evidence that these aktionsarten derive stage-level predicates from individual-level predicates and vice versa.

A question arising is whether this semantic distinction is reflected in a syntactically relevant distinction between lexical parts of speech. Montler (2003) has argued for a distinction between verbs, adjectives, nouns, and other parts of speech in Straits (Northern Straits and Klallam). Distinguishing between nouns, verbs, and adjectives, however, is not a trivial matter, especially in Salish languages and even more particularly in Northern Straits, where the existence of distinct categories of noun and verb has been questioned (e.g., Kuipers 1968, Kinkade 1983, Demers & Jelinek 1984, Jelinek & Demers 1994; Jelinek 1995, 1998). Nonetheless, linguists specialising in Salish languages now generally agree that there is indeed evidence of distinct noun and verb classes (H. Davis & Matthewson 2009). Several arguments have also been put forth for a distinct class of adjectives (Montler 1993, 2003; Demirdache & Matthewson 1995; H. Davis 2002, 2003).

This section begins in §4.1.1 by restating the arguments for distinct classes of nouns, verbs, and adjectives. I will compare Montler's (2003) arguments for a verb-adjective distinction with H. Davis, Lai & Matthewson's (1997) argument that only a semantic distinction between individual-level and stage-level predicates is necessary. In §4.1.2, I will show how the aktionsarten can derive new categories, and in §4.1.3, I will argue that grammatical aspect is only applicable to stage-level predicates (verbs).

4.1.1 The existence of lexical categories: nouns, adjectives, verbs

The lexical category debate (or part of speech debate) within the literature on Salish languages has contributed to a wider debate in the linguistic literature on this topic, most notably through the work of Eloise Jelinek (Demers & Jelinek 1984, Jelinek & Demers 1994, Jelinek 1995, 1998), which focussed on the Lummi dialect of Northern Straits Salish. The issue was discussed in other literature on Salish: Kuipers (1968), Kinkade (1983), and L. Thompson & M. Thompson (1992) have argued against a noun-verb distinction in the language, while Hébert (1983), Hess & van Eijk (1985), Demirdache & Matthewson...

Before beginning the discussion, some clarification of what is meant by 'verb' and 'part of speech' will be helpful here. There are three levels at which the distinction between nouns, adjectives, and verbs might be characterised. First, there is the level of pure lexical semantics, where some lexemes refer to entities, some to qualities, and some to situations. That all of these types of lexemes exist in Salish languages is not under dispute (Montler 2003: 106). I will not use the words noun, adjective, or verb to describe purely semantic categories. Second, there is the purely syntactic use of the words, referring to specific positions in the sentence. In this sense, syntactic verbs are heads of VPs, syntactic nouns occur in NPs (and possibly within DPs), and syntactic adjectives are modifiers of (syntactic) nouns (in APs). The existence of this kind of structure is again not in dispute. Even though Jelinek & Demers (1994, etc.) claimed that Lummi (Northern Straits) has non-configurational syntax whereby all DPs are adjuncts and only pronouns are arguments, they did not deny the existence of DPs (thus also NPs) as a different syntactic phrase from VPs. To avoid confusion, I will refer to the syntactic positions where predicative lexemes may occur as heads of VPs, NPs, and APs, rather than verbs, nouns, and adjectives. These labels are meant to be as basic and theory-neutral as possible.

Where the debate exists is in the link between the lexicon and the syntax, such that some scholars have argued that there is a single open class of lexemes, and there is no need to specify in the lexicon that a given lexeme is a verb, noun, or adjective, because the syntax does not distinguish these lexemes. The idea of an open class of lexemes is argued for in early work on several North American languages (Mithun 1999: 56-57). This proposal is found regarding the Wakashan languages, which neighbour the Salish languages, in the work of Boas (1947) on Kwakiutl (also called Kwak’wala), and of Sapir (1911) and Swadesh (1936-9) on Nootka (also called Nuuchahnulth) (cited in Mithun 1999). It was extended to English in a proposal by Bach (1968). In Salish languages, the open class hypothesis follows from the observation that any of the main predicative
lexemes (those denoting entities, qualities, or situations) can go in any of the three syntactic positions (head of NP, AP, or VP) without any modification. This is shown quite clearly for Northern Straits by Jelinek (e.g., 1995). Additionally, the following arguments have been provided:

1. Object agreement suffixes can be used with noun-like lexemes in predicative position (Shuswap: Kinkade 1983: 28, citing S. Bell (p.c.)).

2. Noun-like lexemes can be used in imperatives (Kinkade 1983: 29, citing Saunders & P. Davis (p.c.)—presumably Bella Coola).

3. Noun-like lexemes can take the “continuative” aspect in Upper Chehalis and the stative prefix in Upper Chehalis and Halkomelem (Kinkade 1983: 29-31).

4. A native-speaker of Cœur d’Alènè with linguistic training translates sentences as though their arguments are predicates:

   \[ \text{‘good-flesh the deer} \]

   \[ \text{‘Venison is delicious’ (‘They are good to eat those which are deer.’)} \]

   (Nicodemus 1975, cited by Kinkade 1983: 34)

5. Both noun-like lexemes and verb-like lexemes can take plural and diminutive morphology (Demers & Jelinek 1984).

6. Northern Straits Salish lacks a copular verb (thus all lexemes can head VPs) (Jelinek & Demers 1994: 703).

Despite this, several arguments have been made that verbs and nouns in Salish languages do differ in their syntactic behaviour, and thus must be specified as distinct categories in the lexicon.


\(^{42}\) Jelinek & Demers (1994) argue that there is a root-level distinction between nouns and verbs, whereby only nouns take possessive morphology, but that this distinction is not relevant to the syntax, so there is no word-level distinction between nouns and verbs.
2. Only verbs can take aspect morphology (Stʼátʼimcets, Lushootseed: van Eijk & Hess 1986; Okanagan: N. Mattina 1996: 173). See also §5.2 for SENĆOTEN.

3. Certain derivational morphology is specific to either noun or verb (Okanagan: N. Mattina 1996: 166).

4. The existence of morphological category conversion (Okanagan: N. Mattina 1996: 169; probably all Salish languages have at least nominalizing morphology).

5. Certain Okanagan-specific restrictions: i. when nouns are used as VP-heads (in complex predicate nominals—see below) they take a different set of person inflections and a different future inflection from verbs. ii. only nouns take the preposition \( t= \). iii. only clauses headed by verbs occur with certain subordinators (Okanagan: N. Mattina 1996: 175, 179, 208).

6. Nouns can be modified attributively by adjectives or by verbs, but verbs cannot be modified attributively by adjectives. (Stʼátʼimcets: Demirdache & Matthewson 1995; Okanagan: N. Mattina 1996).

7. For the Straits languages particularly, only verbs can occur with the "zero-class auxiliaries" YÁ, ye? 'go', ENÁ ?one 'come', TÁ, le? 'again', and HÍ hay 'finish' (Montler 2003: 116).\(^43\)

8. Only nouns can occur as heads (modifiees) of complex predicate nominals (Stʼátʼimcets, Shuswap: H. Davis et al. (1997); Straits: Montler 2003).

9. Nouns may appear "unmarked" in referential roles, while verbs are "marked", in the sense that they must take a deictic—something they do not require in predicative or modifier position. Nouns always take a deictic, whether in predicative, referential, or modifier position. (Lushootseed and Bella Coola (Nuxalk), Beck 1999: 44).

As seen from the above lists, many arguments for a noun-verb distinction have been made in recent years, and H. Davis & Matthewson (2009: 1127) declare "the issue of category

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\(^{43}\) These are the SENĆOTEN equivalents and close cognates of the Klallam auxiliaries used by Montler (2003).
neutrality in Salish...has largely now been settled in favour of recognising at least a noun-verb distinction and probably an adjective-verb distinction as well”.

However, although the noun-verb distinction has been argued for convincingly by many people, the adjective-verb distinction has not been discussed as extensively. Both Beck (1999) on Bella Coola and Lushootseed, and Lai, H. Davis & Matthewson (1997) on St’át’ímcets and Shuswap argue that there is no evidence for a distinct class of adjectives in those particular Salish languages. Beck (1999) focusses on the fact that verbs and nouns can be used attributively without any special modification. I have found potential examples of this in SENĆOŦEN too. Examples (4.1) and (4.2) show verbs used attributively, example (4.3) shows a nominalised verb used attributively, and example (4.4) shows a noun used attributively.

(4.1) **JEPITEN**
čépit-ọŋ či?iq“on
squeeze-MID[PFV] light
‘flashlight’ (16C.5b)

(4.2) **YOF OL, ŶO, YU SOL**
yaθal=?aš ?o=θa<γ>ow sał
always=LIIM CONTR=get.used<IPFV> door/road
“That door/road’s always used.” (23.81)

(4.3) **sxexlám keloitén**
s-x9~xiem q“al-ay-θən
NMLZ-IPFV=watch speak-CONNEC-INSTR(LS)
‘television’ (16C.5c)

(4.4) **siʔem tə swéyqəʔ sleniʔ**
boss GNRL.DET man woman
“The mannish woman is the boss.” (Montler 1993: 247)

In addition, nouns can be used attributively in the complex predicate nominal construction (see below). Thus, it appears that availability as an attributive modifier (head of AP) is not a clear criterion for lexical adjectives in SENĆOŦEN or other Salish languages for which this has been considered. This point has already been made above however: all open class lexemes can occur as heads of VPs, NPs or APs.

However, Montler (1993: 247) provides evidence that in a SENĆOŦEN attributive construction, there is a restriction on which type of word is interpreted as the modifier and which the modificie. In both of the sentences below, the resultative meaning ‘dead’ must be
the modifier. Below, I will show following (Kiyota 2008) that resultatives pattern like other individual-level states. Both are argued to be adjectives.

(4.5) a. haʔaqʷ təʔ s-ʔa~ʔiʔ? səmyəθ
    stink GNRL.DET RES-RES~die deer
    'The dead deer stinks.' (Montler 1993: 247)

b. haʔaqʷ təʔ səmyəθ s-ʔa~ʔiʔ?
    stink GNRL.DET deer RES-RES~die
    'The dead deer stinks.' (Montler 1993: 247)

So this is one piece of evidence for a noun-adjective distinction. We still need evidence for a verb-adjective distinction.

Many Salish languages allow what has been called a complex predicate nominal, whereby a noun and modifier(s) are found in the predicate position of a clause (i.e., head of VP). An example from Klallam is shown in (4.6).

(4.6) čaq=cxʷ səmyəqa?
    big=2SBJ man
    'You are a big man.' (Montler 2003: 129)

Montler (2003: 129-130) argues that the first element in these constructions is an adjective, for the following reasons: 1. It is not a verb because verbs cannot occur in complex predicates and it does not fit his main criterion for verbhood (compatibility with zero-class auxiliaries); 2. It is not a noun because it cannot occur as the final element in a complex predicate (where the word for ‘man’ appears in (4.6); and 3. It is not an auxiliary because it can take plural morphology. Demirdahe & Matthewson (1995) argue similarly for St’át’imcets that adjectives and verbs must be distinguished since adjectives can appear in complex predicate nominals but verbs cannot.

However, H. Davis et al. (1997) argue that it is not necessary on the basis of complex predicate nominals to posit a distinction between verbs and adjectives, at least for St’át’imcets and Shuswap. They would treat the first element in (4.5) as a verb. Their reason that a predicate like čaq ‘big’ can appear in a complex predicate nominal and some other verbs cannot is semantic: it is an individual-level predicate. They show that nouns can also appear in this position, and give a plausible motivation for a restriction to individual-level predicates in this position: only attributive modification is possible in
complex predicate nominals and stage-level predicates cannot be used as attributive modifiers.44

H. Davis et al.’s (1997) arguments can apply to Klallam and Northern Straits, and in fact they consider data from Straits in their paper. This leaves two of Montler’s (2003) arguments for distinguishing between verbs and adjectives in SENĆOŦEN. The first is that only verbs occur with the zero-class auxiliaries. However, the inability of lexemes like ĖK̓ čəq̓ ‘big’ to occur with the zero-class auxiliaries meaning ‘go’, ‘come’, ‘again’, and ‘finish’ can also be explained by their semantics as individual-level predicates. Each of those auxiliaries assumes a stage-level situation, because it requires either a start point or end point.

It may still be possible to argue for a distinct class of adjectives in Straits based on Montler’s (2003) last criterion. He claims that adjectives in complex predicate nominals (4.7) or in DPs (4.8) must take plural morphology if they modify a noun with plural morphology (p. 130)45.

Klallam:
(4.7) čəyq=ɛx*=hay swəwəyqa?
big\PL=2SBJ=2PL man\PL

*čəq=ɛx*=hay swəwəyqa?
big=2SBJ=2PL man\PL
‘You are big men.’ (Klallam, Montler 2003: 130)

(4.8) k*on-naxʷ=cn čəq̓ čəyq / *čəq̓ swəwəyqa?
get.seen-NC.TR=1SG.SBJ GNRL.DET big\PL / big man\PL
‘I see the big men.’ (Klallam, Montler 2003: 130)

Preliminary re-testing of this agreement with the speakers of SENĆOŦEN that I have been working with has yielded inconclusive but suggestive results. The following examples give

44 Note that this use of the word attributive does not refer to the distinction attributive vs. predicative but rather refers to the semantic relationship between the modifier and modified. Attribution modification occurs when the quality of the modifier is judged by the standard of the modified: in (4.5) the man is big compared to other men but not big compared to anything in the world. This contrasts with conjunctive modification (Higginbotham 1985, cited in H. Davis et al. 1997: 16-17).

45 If a noun has no overt plural morphology, the adjective may still take plural morphology, as shown in Montler (2003: 130) and in (4.7 below). In this case the noun is interpreted as plural. One possible hypothesis is that the agreement between adjectives and nouns is semantically motivated: an adjective must be plural if it modifies a noun with a semantically plural referent, regardless of whether the noun has plural morphology (recall that nouns with no overt plural morphology may be interpreted as singular or plural). This hypothesis has yet to be tested.
(a) clauses with non-plural nouns modified by non-plural adjectives, and (b) plural nouns modified by plural adjectives. I am not totally sure that the (b) forms would be ungrammatical with non-plural adjectives, but it is suggestive that when asked for all four possible combinations of plural and non-plural with noun and adjective, the speaker confirmed particularly that the clauses with agreement were acceptable:

(4.9) a. WOSÁLS TFE ČEK SKAXE, was-cls tθo čəq sqeŋə?
    bark-ANTIP\PFV GNRL.DET big dog
    'The big dog is barking.' (47.28)

    b. WOSÁLS TFE ČÍK SKELAXE, was-cls tθo čəyq sq<o>exə?
    bark-ANTIP\PFV GNRL.DET big<PL> dog<PL>
    'The big dogs are barking.' (47.29)

(4.10) a. DEDI,LEM, TFE ÍY, SŁÁNI, lə~liləm tθo ?əy sənəy
    IPFV~sing GNRL.DET good woman
    'The nice lady is singing.' (47.30)

    b. DEDI,LEM, TFE Ă,LI SLENŁÁNI, lə~liləm tθo ?e<la> y stən~sənəy
    IPFV~sing GNRL.DET good<PL> PL~woman
    'The nice ladies are singing.' (47.31)

Note that plural morphology is not obligatory for the noun itself; however, it appears that with a plural referent it is necessary to use the plural form of the adjective anyway. Again, this is for complex predicate nominals and determiner phrases (4.11)-(4.12).

(4.11) k^*en-nax*=cn co čəyq səwəyə?
    see-N.TR[PFV]=1SG.SBJ GNRL.DET big<PL> man
    'I see the big men.' (Montler 2003: 130)

(4.12) MELEMI,MEN, ŠTEM,ČES ma<la>mimən sənəkʷəs
    small<PL> car
    'small, little cars' (23.89)

Thus, it appears that the adjective must take plural morphology when it modifies a noun referring to more than one entity in the real world, regardless of whether or not the noun itself has a plural form.

The agreement patterns shown in (4.7)-(4.12) alone do not distinguish adjectives from verbs, however. First, consider complex predicate nominals. Since stage-level predicates do not occur in complex predicate nominals, we cannot tell whether the
agreement is required specifically with the lexeme class of adjectives, or whether plural agreement is always required in a complex predicate nominal. Recall, though, that nouns can also appear as modifiers in complex predicate nominals. If it is the construction that requires agreement, we would predict that nouns in modifier position would also have to take plural morphology if their modifier was overtly plural. This would not provide very strong evidence because we could still say that verbs in complex predicate nominals agree with their modifiers but nouns do not. I have not yet been able to test this.

Second, consider DPs. Both stage-level and individual-level predicates can occur as modifiers in DPs. If only adjectives take obligatory plural agreement, we would predict that verbs as modifiers in DPs would not have to agree with plural nouns. This does appear to be the case. Compare the individual-level predicates in (4.7-4.12) above with the stage-level predicates in (4.14). Unlike the lexemes of individual-level predicates above, these lexemes denoting stage-level predicates do not agree with the plural noun they modify.

(4.13) I:NEN TFE QÁQI SLNÁNI
ʔi<?? ~lə invoking ʔə ~wə ~yə eating GNRL.DET hungry PL~woman
'The hungry ladies are eating.' (47.19)

(4.14) I:NEN TFE ČÁI SU,WÍKE
ʔi<?? ~lə invoking ʔə ~wə ~yə eating GNRL.DET work<IPFV> man\PL
'The working men are eating.' (47.25)46

This preliminary evidence is suggestive. It will be necessary to test many more stage-level and individual-level predicates before drawing a firm conclusion, but this evidence does suggest that agreement is necessary for individual-level predicates as heads of APs, but not for stage-level predicates as heads of APs, thus supporting Montler’s (2003) argument that there is a verb-adjective distinction in Northern Straits.

A nice piece of evidence for the adjective-verb distinction would be if adjectives agreed in number with nouns even when in predicative position. However, this does not

46 This sentence was checked by Janet Leonard on my behalf. She has a note that the speaker she asked said the sentence was fine, but difficult.
appear to the case, given (4.15), which shows an adjective with no plural morphology in
predicative position which describes the referent of a plural noun in DP position.

(4.15)  TEKTÅŁ  TTE  SU,WÎKE
λąqteł  tθǝ  sǝwɔqøʔ?
tall  GNRL.DET  man\PL
‘Those men are tall.’ (47.10)

This is the only example I have found with a plural noun that is described by an adjective
in predicative position, and I have not carried out any rigorous testing of plural agreement
yet. It appears so far that the agreement may only be necessary in complex predicate
nominals and DPs, but I will need to test this further. Note that Montler (2003) only claims
that the agreement happens in complex predicate nominals and DPs, so (4.15) does not
provide any counterevidence to his claim.47

H. Davis (2003: 40) also looks at plural agreement in St’át’imcets DPs, showing
that adjectives differ from both nouns and verbs. In certain extraction contexts, adjectives,
like nouns, but unlike verbs, require plural agreement with a plural extracted antecedent.
In St’át’imcets, this plurality is indicated by the use of a plural determiner. Verbs do not
require this agreement, a piece of evidence which Davis employs in an argument for the
existence of non-pronominal gaps in the language (which is not relevant to my discussion
here). Adjectives are distinguished from nouns in that they are unable to introduce a new
discourse referent.

From my discussion here, it is clear that more fieldwork is required to see if
adjectives do differ from verbs in their syntactic behaviour in a way which cannot be
argued to be motivated by the semantics (i.e., the complex predicate nominal case
discussed above). As noted by N. Mattina (1996: 160), the use of inflectional morphology
constitutes strong evidence for a distinction between lexical categories. Agreement should
be the best instance of inflectional morphology for this task, better than, e.g., aspect, since

47 H. Davis (2002) also provides evidence for a class of adjectives in St’át’imcets, in which he
includes individual-level and stage-level states. Individual-level adjectives and perfective stage-level
adjectives are ungrammatical in certain types of relative clauses (postposed relative clauses of the
form head-determiner-rel.clause). I have not yet been able to investigate whether this test is relevant
to SENÇOTEN.
it is directly relevant to syntax. It is also better evidence than Mattina’s (1996) derivational morphology. As Jelinek & Demers (1994) and Jelinek (1998) point out, there is a semantic difference between nouns and verbs, but the restriction of derivational morphology does not provide evidence that this distinction is syntactically relevant. Morpho-syntactic inflectional morphology does. Whether or not there is a verb-adjective distinction, some distinction between these two groups of lexical items is relevant for aspect. The alternative to positing a verb-adjective distinction is working with the semantic distinction of individual-level vs. stage-level (as in H. Davis et al.’s 1997 account). In the remainder of the thesis I will continue to consider Montler’s (2003) argument a hypothesis and speak generally of the individual-level vs. stage-level distinction. Where relevant, I will provide a reminder that this could be treated as an adjective-verb distinction.

These individual-level predicates which are not nouns, and may be adjectives, have been identified as a distinct class by Kiyota (2008): one of his five situation types is the homogeneous state. Homogeneous states are “simple states that have neither an inherent initial point nor an inherent final point” (p. 39). Kiyota (2008) argues that homogeneous states are basically equivalent to individual-level states, and gives some evidence that they are generally used to express a permanent quality, rather than a temporary one. For example, it is odd to use QOMQEM k*amk*om ‘strong’ to express a temporary strength.

\[(4.16) \quad \text{'strong'}\]

Kiyota (2008) also suggests that homogeneous states are distinct from all other situation types terms of their behaviour in two of his situation type tests, the interpretation with perfect ĊL kʷl and with ĊE,LÂL čâlel ‘almost’. While the readings with these two

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48 They argue this on the basis of possessive morphology, which is questionably derivational; however, I believe the general point still stands, if derivational morphology is taken to operate at the lexical level, not the syntactic level.
tests distinguish the other situation types from each other (see chapter 2 and §4.2), homogeneous states “sound odd” with the perfect (4.17), and with ‘almost’ (4.18).

(4.17) $k^t_i=t=q$ tso nə sqexə?
PRF=big GNRL.DET 1SG.POSS dog (Kiyota 2008: 254)

(4.18) $k^t_i=c=ɬələl$ ?iʔ=k*amk*əm
PRF=almost COM=strong (Kiyota 2008: 267)

Kiyota (2008) does not provide translations for these sentences, as they were rejected by the speaker he worked with. If these individual-level states behaved like stage-level states, I predict they would be translated something like ‘My dog’s getting big’ (4.17) and ‘He almost got strong’ (4.18).

Interestingly I have recorded one example, which I did not elicit, of a homogeneous state-like lexeme with the perfect.

(4.19) $O\;\Upsilon\;n\;E\;0\text{IM}\;T\text{FE}\;\Upsilon\text{OBEN}$
\[k^t_i=ʔaw=nak*im\ təə\ ɬapən\]
PRF=CONTR=red GNRL.DET ladle
‘The ladle is red.’

It may be that the discourse marker $U, \text{ʔaw} ‘\text{CONTRAST}’$ contributes some kind of non-stative reading to this statement which describes an inherent and permanent property of the ladle.

The class of homogeneous states is also identified in Halkomelem by Gerdts (1991), who calls them simply states. She treats them as a sub-category of unaccusatives which are able to take the causative suffix but not the desiderative suffix (see §4.2 on unaccusativity). She discusses the inability of these states to take the desiderative suffix, which is used with other unaccusatives to express an “unavoidable future”, arguing that it is less relevant for states to refer to the entering into or leaving of that state (p. 241). This is also compatible with the individual-level nature of these kinds of states.

In contrast with homogeneous states, inchoative states are stage-level. The Stá’t’ímeets equivalents of SENĆOFEN inchoative states apparently cannot be used as modifiers in complex predicate nominals (H. Davis et al. 1997: 297), so they are candidates for the class of verbs. H. Davis (2003: 40, fn 14) also mentions that stage-level states
behave like verbs. In addition, example (4.13) above shows an inchoative state 'hungry', which does not agree with the plural noun it modifies. Since adjectives are reported to obligatorily agree with plural nouns, the inchoative state in (4.13) must be a verb.

**SENÇOTEN** homogeneous states are often translated with English adjectives. However, like stage-level states in other languages (§2.1) they encode not only a stage-level state, but also the inception of that state (Bar-el 2005, Kiyota 2008). They behave like activities with respect to most of Kiyota's (2008) situation type tests, and in §4.1.2.1 I will suggest that the classes of activities and inchoative states should be split further into several classes of atelic, stage-level verbs.

In this subsection, I have compared a potential adjective-verb distinction in **SENÇOTEN** with the semantic distinction between individual-level and stage-level predicates. This distinction is the most relevant lexical distinction for the use of grammatical aspect. In §5.2, I will show that individual-level predicates, both nouns and adjectives, do not show a distinction between perfective and imperfective.

### 4.1.2 Inchoatives and resultative

In this section I will show that the inchoative and resultative aktionsarten can derive stage-level predicates from individual-level predicates and vice versa. Kiyota (2008) provides evidence for this, and I will add to his evidence. I will first discuss the two inchoatives, the suffix -sat (§4.1.2.1) and the prefix tx^w- (§4.1.2.2) which can both derive stage-level predicates from individual-level predicates. Then I will discuss the resultative, which derives individual-level predicates from stage-level predicates, namely stage-level unaccusatives (§4.1.2.3). Lastly, in §4.1.2.4, I will show that some valence-changing suffixes can derive stage-level predicates from individual-level predicates: causative, middle, and non-control reflexive. I do not discuss all the aktionsarten in **SENÇOTEN** here. In chapter 3, I also outlined the persistent suffix -i, and there may be other aktionsarten. The reason I do not consider the persistent suffix here is first a lack of data.
regarding its semantic properties, and second it does not seem to be relevant to the stage-level vs. individual-level distinction among predicates.

If we accept the verb-adjective distinction (§4.1.1), then it appears that the aktionsarten considered in this section can change the lexical category of a lexeme. If so, the generalisation is that inchoatives are verbs and resultatives are adjectives, regardless of the lexical category of their bases. This would then be further evidence that the aktionsarten are derivational rather than inflectional (§3.3).

4.1.2.1 Inchoative -sat

Chapter 3 argued, following Gerdts (2000) for Halkomelem, and Montler (1986) for SENCOTEN, that the suffix -sat is used in two distinct ways. First, it is suffixed to control transitives to form control reflexives (4.20). Second, it is suffixed directly to roots to form inchoatives (4.21).

(4.20) BŒSELT TTE MO,ÈK
    ðk*-Ø-sat        tøø ma? Daughter
     rise.to.surface-C.TR|PFV-REFL DET duck
    ‘The duck surfaced on its own.’ (6.16)

(4.21) ČESOT TTE SKEŁÁLNEW
    caq-sat        tøø sqøleñø
     big-INCH[PFV] DET tree
    ‘The tree's getting big.’ (21.42)

Gerdts (2000) argues that the first use is the original use of the suffix and is more productive. The second use has changed its function: it no longer has a reflexive semantics and no longer applies to transitive bases. It is this second, inchoative, use (4.16) which I am concerned with in this section.

Gerdts (2000) describes the inchoative use of Halkomelem -sat as “aspectual”. In this thesis, I consider the SENCOTEN inchoative -sat to be one of the derivational formatives which affects event structure, because it derives a verb representing a different situation type from its base. In particular, it derives atelic stage-level verbs from individual-level predicates. Kiyota (2008: 44-45) shows that this suffix applies to homogeneous states to yield a predicate which is more eventive. If we assume a distinction between adjectives and verbs in SENCOTEN (§4.4.1), then the inchoative -sat suffixes to
adjectives to derive verbs. The root in (4.21) čaq 'big' is an adjective according to Montler’s (2003) criteria. Consider also the following example, which contains the adjective meaning 'long'.

(4.22) JÁN U TEKSOT TFE SČÁCEL
čen ?ọw=čaq-sat tọ sk=čel
really CONTR=long-INCH[PFV] GNRL.DET day
‘The days are getting longer.’

It appears that -sat as an inchoative suffix only appears on predicates which test as homogeneous states, i.e., individual-level predicates. There are no examples in my fieldwork of an inchoative use of -sat on any (stage-level) verbs or nouns. More fieldwork is required to test this explicitly.

Kiyota (2008) also shows that when -sat attaches to homogeneous states, the derived inchoative behaves more like the non-stative situation types, i.e., it is stage-level. As seen in (4.21-4.22), -sat suffixed forms can refer to temporary states. Also, Kiyota (2008) shows that they can take the perfect (as in (4.23)) and ‘almost’ (4.24).

(4.23) JÁN U, ČE PEKSOT TFE NE SIÁTEN
čen ?ọw=čaq-sat tọ no si?etan
really CONTR=PRF=white-INCH[PFV] GNRL.DET 1SG.POSS hair
‘My hair’s getting white.’ (7.10a)

(4.24) kʷt=čolel ?i?=kʷamkʷom-sat
PRF=almost COM=strong-INCH[PFV]
‘It’s just about getting strong.’ (Kiyota 2008: 267)

Thus, -sat derived verbs look more like one of Kiyota’s (2008) stage-level situation types than their adjectival roots. In addition, Gerdts (1991: 244) shows that the Halkomelem cognates of -sat inchoatives behave more like process verbs, in that they can take the desiderative suffix (while their stative bases cannot).

Inchoatives with -sat pattern as atelic with the perfect and in out of context translations. The perfect sentences in (4.21) and (4.25-4.26) are all inceptive, and several more examples are found in Kiyota’s (2008) appendix.

(4.25) JÁN U, ČE SČUÁTSET TE SĽÁNI,
čen ?ọw=čaq-sat tọ sľano
really CONTR=PRF=be.smart-INCH[PFV] FEM.DET woman
‘The woman’s getting really smart/really good at it.’ (7.18a)
(4.26) \( k^* t = \text{ loosen-sat} \) to qeq
\( \text{PRF= heavy-INCH[PFV]} \) GNRL.DET baby
'The baby is getting heavier.' (Kiyota 2008: 254)

In out-of-the-blue tenseless sentences, -sat inchoatives have a similar interpretation and are translated with English present progressive, as in (4.21) and (4.27-4.29).

(4.27) MIMENEKENSET
miman-oqon-sat small-LSvoice-INCH[PFV]
'getting a small voice' (Fieldwork 2009)

(4.28) ČEKŠOT
čaq-sat tθo sał
big-INCH[PFV] GNRL.DET road
'The road is getting bigger.' (6.35, 13.70)

(4.29) JÁN U TEKSOT
čen ?ow=čaq-sat tθo sk*čečal
really CONTR= long-INCH[PFV] GNRL.DET day
'The days are getting longer.' (37.19)

Since they have inceptive/ongoing interpretations with the perfect and in translations of out-of-the-blue contexts, the -sat inchoatives I've looked at all appear to be atelic.

Within the atelic eventive predicates, Kiyota (2008: 53) distinguishes activities from inchoative states in their semantic representation: activities are agentive and contain a DO subevent, while inchoative states are not agentive, and do not contain a DO subevent. The evidence he offers for this is that activities can be used in commands, while inchoative states cannot (pp. 52-53). I have not systematically tested to see whether -sat inchoatives can be used in commands. However, given the meanings of the -sat inchoatives I've recorded (given in the following list), it would be surprising to find that they could.

(4.30) ČEKŠOT čaqSAT 'get big'
SCUÂTSOT sčuetsot 'get smart, learn'
TEMONESET l'omqasAT 'get wet'
ČIEKŠET čiaq=saT 'get light'
QASET k'essat 'get warm (weather)'
TENONESET l'onaqasot 'get cold (drink)'
TŁONESET l'apąsat 'get cold, cool off (drink)'
ISOT ?ąysat 'get better'
PKÁ,SET pq'e?sat 'turn rotten, decompose'
XITSOT xiłsat 'get cool (weather)'
TEKSOT ląqsat 'get long'
Thus they appear more like inchoative states. However, there is a difference between inchoatives and inchoative states: inchoatives describe the entrance into a state even in the imperfective:

(4.31) JÁN U XİTSÖZET TTE SCÁCEL
chen ?u?~ixi-xa<?a>t təə sk*eəl
really CONTR=cool-INCH<IPFV> GNRL.DET day
'The days are getting cooler.' (37.16)

Inchoative states, recall, only describe the state itself in the imperfective. This suggests it might be useful to add to Kiyota's (2008) five situation types. In addition to activities and inchoative states, there are also inchoatives.

There is also evidence for another class of atelic verbs: positional states. Unlike inchoative states, these atelic verbs are agentive and stative. Agency alone should not be a situation type criterion. However they also behave differently from both inchoative states and activities with respect to aspect. Like inchoative states they describe the entry into a state in their perfective (4.32, 4.34) and the resulting state in the imperfective aspect (4.33, 4.35). However, the resulting state reading is not found with the perfective.

(4.32) EMET TTE KAŁ LÅ,E TTE SWAREN
?omat təə qeq le?ə təə $x*amat
sit<IPFV> GNRL.DET baby LOC.PREP GNRL.DET bed
'The baby's getting up from the bed.' (8.26c)

(4.33) OMET SEN
?a<?omat=son
sit<IPFV>=1SG.SBJ
'I'm sitting; I'm at home; I'm lazy.' (Fieldwork 2006)

(4.34) TILEN SW HALE
ṭiḥəŋ=$x*=helə
stand.up<PFV>=2SBJ=2PL
'Stand up everyone.' (Turner 2007: 47)

(4.35) TETILEN SEN
$ə=ṭiḥəŋ=son
IPFV~stand.up=1SG.SBJ
'I'm standing up.' [in a standing position, NOT assuming a standing position] (Turner 2007: 47)
During elicitation in 2006, one of the speakers observed that (4.35) describes a state not a process. This was further confirmed in my 2008 fieldwork by showing someone standing up extremely slowly in a video, and asking whether the imperfective could be used to describe this. It could not, and the perfective form was used instead.

Positional statives may look like inchoative states because they describe the inception of a state. However, they differ from inchoative states in two ways. First, in the perfective aspect, while inchoative states can describe the entrance into a state or the state itself, positionals can only describe the entrance into a state. Second as seen in (4.34) above and (4.36 below), positionals can be used in commands.

(4.36) EMET
?omat
become.seated
‘Get up.’ (from lying down) (2006)

Positionals thus are like activities in that they are agentive, but they are like inchoative states in that they describe a stative situation (and its inception).

Now we have examples of agentive atelic verbs which are stative (positionals), agentive atelic verbs which are non-stative (activities), non-agentive atelic verbs which are stative (inchoative states) or inchoative (inchoatives). What about atelic verbs which are neither agentive nor stative? These also exist in SENCÔTEH, in the form of involuntary bodily processes, such as those in (4.37-4.40).

(4.37) WAKES
weqas
yawn[PFV]
‘yawn’

(4.38) WA,KES SEN OL,
weqas=son=ʔal
yawn<IPFV>=1SG.SBJ=LIM
‘I’m just yawning!’ (6.13a)

(4.39) HÂSENG SEN
hes                                                      sneeze[PFV]=1SG.SBJ
‘I just sneezed.’ (Fieldwork 2006)
(4.40) HÀ,SEN SEN  
he<?>soq=S9n  
sneeze<IPFV>=1SG.SBJ  
‘I’m sneezing.’ (Fieldwork 2006)

Since several possibilities are covered, I suggest that we should fine-grain Kiyota’s
distinction and distinguish between several types of atelic predicate: agentive activities,
inchoative states, inchoatives, positional states, and involuntary bodily processes.

In this section, I showed that the inchoative suffix -sat is used to derive stage-level
predicates from individual-level predicates. In particular, forms with -sat are atelic and
stative, and they vary in whether or not they can take agentive subjects. If an adjective-verb
distinction is made in SENÇOTEN, then inchoative -sat derives verbs from adjectives. In
the next section I will look at a similar affix which has a wider distribution.

4.1.2.2 Prefixed inchoatives

The prefix tx^- is called mutative by Montler (1986: 48), who states that it can be
used to describe a gradual change of state or coming into possession of something. Along
with inchoative -sat, it is discussed by Kiyota (2008: 45) with respect to its use with
homogeneous states. It is able to turn an individual-level state into a stage-level verb
describing a change into the state. For this reason I call it an inchoative. As noted in
chapter 3, this prefix can have the form [tx^-] or [tx^-a-]. Normally the latter occurs before
fricatives, but there are exceptions to this.

(4.41) SÁCEN TI,Á NE DÁLU,  
se⁶naŋ ti?e na telaw  
be.in.pain PROX.DEM 1SG.POSS arm  
‘My arm is sore, my arm hurts.’ (19.6)

(4.42) TWESA(SÁCEN TFE NE DÁLU,  
tx^-se⁶naŋ tθo na telaw  
INCH-be.in.pain[PFV] GNRL.DET 1SG.POSS arm  
‘My arm got sore.’ (19.6a)

49 As discussed in §3.4.3, Jacobs (2007) argues that the Skwxwú7mesh cognate to this prefix is used
to convey ‘out of control’ meaning, where the causer of the event is not the subject participant (p.
281). This may also be the case in SENÇOTEN, but further data is required to investigate this.
Particularly, it would be necessary to record more examples of the prefix with perfective verbs,
since it is with perfective verbs that the Skwxwú7mesh prefix gets its ‘out of control’ readings.
However, this prefix is not just used with individual-level states (adjectives). As shown in Montler (1986), it is also used with nominalised verbs (4.44) and resultatives (4.45, 4.46).

(4.43) **LO,ETE** TWE SJECXT
la?o=to
GNRL.AUX=NREM INCH-NMLZ-get.fried-C.TR\PFV
'It’s fried; it got fried.' (9V.26b, 13.101)

(4.44) **TWE ŚWÇÁKEŁ**
txʷ=š-xʷ=xʷeqɔʔ INCH-RES-open\RES
'It’s open; it’s now open.' (23.93)

(4.45) **TW SKOL,EL** TFE SKÁUF
txʷ-s⁻qʷalst INCH-RES-get.roasted\PFV GNRL.DET potato
'The potatoes are getting cooked.' (6.12a)

It is also used with non-derived nouns.

(4.46) txʷ=š-spaał50 INCH-raven
'So he became a raven.' (Montler 1986: 257 (in story “Raven abandons his son”))

It may appear from these examples that the inchoative prefix is only used to derive a verb from a noun or adjective, or at least an event from a non-event. However, it is also used with verbs:

(4.47) **TW LETET SEN**
txʷ-ləʔ=st=șan INCH-get.full-C.TR\PFV-1SG.SBJ
'I was going to fill it up.' (Fieldwork 2006)

(4.48) XENÁN ET ESE U TW HÁ,EQ OL,
χʷoneŋ ?s=Ł ?sɔ ?sʔ=txʷ-heʔ=ʔs=ʔxʷʔal like.that OBL=PN.DET 1SG.PRED CONTR=INCH-remember\IPFV=\LIM
'Just like me, just thinking about it (remembering.).' (17.101, 23.58, 43.8)

Example (4.49) has an inchoative of a resultative and an inchoative of an imperfective.

---

50 This is the Hul’q’umi’num (Island Halkomelem) word for ‘raven’, but it is used in the context of a SENČOTEN story, and the prefix has the SENČOTEN form.
She was bent and then stood up (slowly) and then she got straightened up, and now she’s standing.’ (V2.2)

It is also used with other parts of speech, such as auxiliaries, adverbs, and numerals.

Example (4.50) shows it used with a numeral.

‘It’ll be two days before I manage to get home.’ (21.49)

Example (4.51) shows the inchoative used with an adverb, an auxiliary, and an imperfective with habitual interpretation.

‘I used to run, but my leg got sore so now I walk.’ (26.11)

As with -sat inchoatives, Kiyota (2008) shows that the tx*- inchoatives derived from homogeneous states behave like eventive verbs. They can be used with punctual clauses to describe temporary (stage-level) states, they can take the perfect, and they can be used with ‘almost’. No examples are given for the punctual clause modification, but (4.52) shows a tx*- inchoative with perfect and (4.53) one with ‘almost’.

(4.50)  

(4.51)
There is not enough data available to determine what kind of stage-level situations the tx^w- inchoatives are. It seems they may not be a homogeneous class, since they vary with respect to their interpretation with the perfect. Compare the ongoing/inceptive reading (typical of atelic verbs) in (4.52) with the completed reading (typical of telic verbs) in (4.54).

(4.52) k^w=tx^w-mamimən tiʔə na sqeŋə?
PRF=INCH-small PROX.DEM 1SG.POSS dog
‘My dog is getting smaller.’ (Kiyota 2008: 254)

(4.53) ḋəɬəl ʔiʔ=tx^w-s-le~lo? təc no snaxʷəʔtɬ
almost COM=INCH-RES-RES~get.fixed GNRL.DET 1SG.POSS canoe
‘My canoe is almost fixed.’ (Kiyota 2008: 267)

In addition, the fact that the inchoative prefix can be used on such a wide variety of bases means that some tx^w- inchoatives have agentive subjects and some not.

4.1.2.3 Resultatives

While inchoatives derive stage-level predicates from individual-level predicates, the resultative derives individual-level predicates from stage-level predicates (Kiyota 2008: 46). Turner (2007) argues that resultatives are always derived from unaccusatives. I have still found no evidence to contradict that claim. The following examples show unaccusative bases and their resultatives. See §4.2 for arguments that these bases are unaccusatives. See Turner (2007) for more examples of unaccusative/resultative pairs.

(4.55) ḲEȻIL I, WÍ SEN
kʷəč’il ʔiʔ xʷəy=sən
morning CONTIN wake.up[PFV]=1SG.SBJ
‘I woke up early this morning.’ (1.51)

(4.56) SWÍEɬ SEN
s-xʷəyəl=sən
RES-wake.up\RES=1SG.SBJ
‘I’m awake.’ (1.55)

(4.57) ṫEɬ₃, TTE NE TI
kʷəɬ təθə na ti
spill[PFV] GNRL.DET 1SG.POSS tea
‘My tea got spilled.’ (6.22)
Since the resultative is used to describe the result state of some event, it also has to be derived from a verb describing an event which has a natural result state, namely a telic verb. Thus, the base of a resultative is both telic and unaccusative. In §4.2, I will discuss whether there are any unaccusatives which are not telic.

Turner (2007) treats resultatives as a third aspect, comparing them to perfectives and imperfectives, and arguing that they are derived from imperfective bases. However, since they are used to change the event structure of a predicate, and possibly its part of speech (if an adjective-verb distinction is maintained), they must be in a different category from the perfective-imperfective contrast. They are derivational in the sense that they affect lexical semantics and apply only to a very narrow set of verbs. It does not make sense to define verbs that don’t have the resultative formative as “non-resultative”, especially since, for example, inchoative states (which don’t take resultative) can describe a state which has come about through change. However, all (stage-level) verbs must inflect for aspect, appearing as either perfective or imperfective.

The resultative usually has the same stem shape as the imperfective, with an additional s- prefix, which is why I argued in Turner (2007) that it is derived from the imperfective. Compare the imperfective in (4.59) with the resultative in (4.58) above.

(4.58) SÇOL,ÈL TFE KÒ, res-get.tipped<IPFV> GNRL.DET water
s-k*aloł tòa q*o?

‘The water’s already spilled.’ (6.21.2)

(4.59) I,ÇOL,ÈL TFE TA,EÇEL
?i?-k*aloł tòa tey*w’tol
CONTIN-get.tipped<IPFV> GNRL.DET race.canoc

‘The canoe is on the verge of tipping over.’ (5.3)

However, there is no reason other than the similarity in form to make this argument. In addition, a few resultatives have different forms from their corresponding imperfectives.

Compare (4.60) and (4.61).

(4.60) BÀÇEL pek*w’ol
rise.to.surface<IPFV>

‘surfaces every now and then’ (e.g., a buoy) (Turner 2007: 55)
In the closely related Halkomelem, many resultatives differ from their corresponding imperfectives; this led Galloway (1993: 283) to abandon his earlier claim (1977) that resultatives and imperfectives are derivationally related in that language. I am now following him in arguing that resultative is not synchronically derived from imperfective, though there is clearly a historical relationship given the near identical forms, which are very distinctive in their shape and variation (§3.2).

What is clear is that resultatives do not have distinct perfective and imperfective forms, and their stem shape happens to be generally the same as the imperfective. This will be discussed further in §5.2, where I argue that only (stage-level) verbs inflect for aspect.

4.1.3 Valence changing morphology deriving stage-level predicates

In addition to the derivational formatives described in §4.1.2, some of the valence-changing morphology (see chapter 3) can be applied to bases representing individual-level predicates. These include (and are possibly limited to) the causative and the middle. In all of these cases, the derived lexemes are (stage-level) verbs. Some examples of causatives derived from individual-level predicates are found in (4.62-4.64).

(4.62) ŞBOÇEL TFE KĽÁ, s-šak=st RES-rise.to.surface\RES GNRL.DET log

‘The log is floating (in one place).’ Turner 2007: 55

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(4.62) ĆĘKTOW SEN TFE NE SLİL
čeq-txv=son tőč nő stil
big-CAUS[PFV]=1SG.SBJ GNRL.DET 1SG.POSS gift
‘I’m making the gift mean more.’ (31.7)

(4.63) NEŞIMTW
nak=im-txw
red-CAUS[PFV]
‘Paint it red.’ (37.42)

(4.64) NON U HİFTES
nan=rə?u?
hiθ-t-os
very=CONTR long-CAUS[PFV]-3ERG
‘He’s making too long of a job out of it.’ (37.45)

This use of the causative with individual-level states is also discussed by Gerdts (1991, 2006) for Halkomelem, who reports that these causatives have meanings like “‘have it V’, ‘keep it V’, and ‘find it V’” (1991: 241). These translations presumably result from the fact

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that the direct object of these causatives is a patient, not an agent. I also have an example of a -sat inchoative with a similar meaning.

(4.65) JÁN E NON U IYESSET
čen ?ənan ?uʔ=ʔiyəs-sat
really very CONTR=fun-INCH[PFW]

TTE EN SLÁ,LE,SET
təs ?ən s-le~ləʔ-sət
GNRL.DET 2POSS NMLZ-IPFV-do-C.TR;C.REFL
‘I’m starting to find [what you’re doing] fun.’ (37.41)

In this case the subject of the sentence is a patient, so perhaps a literal translation of (4.65) would be ‘what you’re doing is starting to get fun’.

The middle suffix is normally used to derive intransitives with agent subjects from intransitives with patient subjects (see chapter 3). It is also used with individual-level states, sometimes also with the directional suffix, as seen in (4.66-4.67).

(4.66) LE,LILEN O,?
lə~lən-əŋ ?ə?
IPFV~far.away-MID eh
‘A long ways, eh?’ (23.170)

(4.67) ŠIY,ILEN TTE SCÁCEL
ʔəy-ιł-əŋ təs sk*ecəl
good-DIR-MID[PFW] GNRL.DET day
‘The weather’s getting better.’ (32.1)

Thus, it appears that the causative and middle suffix can both be used to derive verbs from adjectives, just like the inchoatives. I have not yet carried out any investigation into their characteristic situation type. However, I predict that middles at least will behave like activities. There are four reasons for this. 1) Bar-el (2005: 49-50) notes that all of her examples containing DO (i.e., activities and accomplishments) have either the control transitiviser or the control intransitiviser (i.e., cognate to the SENCOTEN middle); since accomplishments all contain the control transitive, this suggests that activities contain the middle. Bar-el does caution however, that she has found some achievements with the same suffix. 2) Many of Kiyota’s (2008) activities contain a frozen middle suffix. 3) H. Davis (1997) shows the similarities between underived (i.e., zero-derived) unergatives and middles in St’át’imcets, and below I will show that underived unergatives tend to denote activities. Gerdts & Hukari (2005: 52) note that antipassives (formed with the middle or
the activity suffix) containing oblique objects normally refer to patients which are third person, inanimate, and non-individualized or non-specific. This points to them being non-quantized (Krifka 1989) and thus atelic. Further investigation is required to test different types of middles and to test causatives with respect to situation type.

This section has re-visited some of the evidence given by Kiyota (2008), making the claim that the inchoative aktionsarten can derive stage-level predicates from individual-level predicates, and the resultative derives individual-level predicates from stage-level predicates. I compared Kiyota’s (2008) individual-level states to Montler’s (2003) adjectives, and argued that there is some evidence for a verb-adjective distinction in SENOCTEN, but that further investigation is required in order to be sure. If we assume that there is a verb-adjective distinction, we are able to say that the inchoatives derive verbs from adjectives while the resultative derives adjectives from verbs, and this would provide supporting evidence for their derivational status (§2.3). I showed that there is some valence-changing morphology, namely the middle and causative suffixes, which can also derive verbs from adjectives and nouns.

In the course of my discussion of individual-level states, I compared these to inchoative states and activities, suggesting that they constitute a separate class from either. I also looked at positionals and bodily processes, two other types of atelic predicates which do not appear to fit in with the classes of activity or inchoative state. I thus suggested that we distinguish more types of atelic verbs than those discussed in Kiyota (2008), so that there are at least five types. Now that I have discussed individual-level states and some distinctions among atelic verbs, the next section looks at the distinction between atelic verbs and other intransitives.

4.2 Classification of base-level intransitives

Kiyota (2008) claims, following work by Matthewson (2004) and Bar-el et al. (2005), that SENOCTEN unaccusatives are achievements. Other intransitive verbs in his work fall into the classes of inchoative states and activities. However, unaccusativity remains undefined
in his work. As discussed in chapter 2, a syntactic distinction between unaccusatives and unergatives has been proposed within Salish languages by Gerdts (1988, 1991) for Halkomelem. Gerds & Hukari (2006a) and Gerds (2006) report on their application of the unaccusativity tests to hundreds of verb roots and argue that they need to refine their classification, such that there are four types of roots in Halkomelem. The purpose of this section is to compare Kiyota’s approach with that of Gerds & Hukari, arguing that they target some of the same distinctions between intransitive verbs. The first subsection (§4.2.1) looks at Kiyota’s (2008) intransitive telic verbs (achievements), showing that they compare to Gerds’s (2006) process unaccusatives and patient-oriented transitive roots. As shown in §4.1, Gerds’s (1991, 2006) stative unaccusatives are equivalent to the homogeneous states/adjectives. The second subsection (§4.2.2) looks at Kiyota’s intransitive atelic verbs (activities and inchoative states), showing that they compare to Gerds’s (2006) unergatives and agent-oriented transitive roots. There are also derived atelic intransitives bearing middle, antipassive, or directional suffixes, which also seem to pattern with unergatives. §4.2.3 contains a discussion of how to combine the two approaches.

4.2.1 Unaccusatives as telic intransitives

Gerds (1988, 1991, 2006) and Gerds & Hukari (2006a) outline three distinctions between unaccusatives and unergatives. In Gerds (1988, 1991) these are presented in the framework of Relational Grammar as syntactic tests, which target a fundamental syntactic distinction between the verb classes: unaccusatives have a subject which is a 2 in the initial stratum, while unergatives have a subject which is an initial 1.

In this section I will first show some preliminary evidence that Gerds’s tests for Halkomelem do apply to SENČOTEN (§4.2.1.1). There is also a large number of transparent cognates between SENČOTEN and Halkomelem. Given these two facts, I believe it is possible to compare Kiyota’s (2008) SENČOTEN verbs with Gerds’s (2006) Halkomelem verbs. In §4.2.1.2, I consider a list of the verbs Kiyota (2008) calls
un accusatives (i.e., telic intransitives/achievements) and show that the cognates in Halkomelem fall into Gerdt's (1991, 2006) categories of process unaccusatives and transitive roots with patient subjects. I will also look at a few roots which I have tested for unaccusativity in SENĆOTEN.

4.2.1.1 Unaccusatives in SENĆOTEN

Gerdt's (2006) canonical unaccusative roots have the following properties: 1) they are able to take the control transitive suffix; 2) they either do not take the causative suffix, or use it to form ditransitives; 3) they either do not take the desiderative suffix, or use it to describe an inevitable event about to happen; and 4) when they appear with the non-control reflexive, it has either reflexive semantics or describes an event which has "finally" occurred. In addition, all the verb roots that have this combinatorial behaviour take a subject which is a semantic patient.

Preliminary application of these criteria to SENĆOTEN yields similar results. The following verb, for example, tests as canonically unaccusative according to criteria 1-3. It has not been tested for criterion 4. Example (4.68) shows the bare root and (4.69) shows that it takes the control transitive suffix. The root was rejected with the causative suffix (4.70) and the desiderative suffix (4.71).

(4.68) WČEK TTE SOL
xʷkʷaq təθ saɬ
open[PFV] GNRL.DET door
'The door opened on its own.' (34.6)

(4.69) WČEKET TTE SOL
xʷkʷaq-ət təθ saɬ
open-C.TR\PFV GNRL.DET door
'Open the door.' (34.1)

(4.70) *xʷkʷaq-txʷ
open-CAUS[PFV]
'He/she caused it to open; he/she made him/her open it.' (34.8)

(4.71) *xʷkʷaq-ənə
open-DESID[PFV]
'It wants to open; it's about to open.' (34.8)

The following root has a cognate found among Gerdt's (1991) unaccusatives. In SENĆOTEN they also test as unaccusatives according to the first two criteria.
Gerdts (2006) also argues for a class of transitive roots, some of which have an agent subject and look more like unergatives, and some of which have a patient subject and look more like unaccusative. The latter, patient-oriented ones, test as unaccusatives but only occur as a bare root in specific constructions Gerdts calls “pseudo-transitive imperatives”. These are commands which are syntactically intransitive. At least two of the roots on her list look like they might behave the same way in SENĆOŦEN. For the first (4.75) I have tried several times to get the root in an intransitive sentence, but always a passive is used (4.76).

(4.75) QSET SEN ČE,  
\[k^s-\alpha=\sigma=\alpha^\theta]  
get.counted-C.TR\PFV=1SG.SBJ=INF  
‘I already counted it.’ (2006)

(4.76) QSETEN  
\[k^s-\sigma=\alpha\eta\theta=t\sigma\sigma\omega\theta]  
get.counted-C.TR\PFV-PASS=1SG.SBJ=PASS  
GNRL.DET \text{egg}  
‘The eggs are going to be counted.’ (1.34)

However, the speakers confirm that it is a word in the language (4.77).

(4.77) QES  
\[k^\alpha\omega]  
get.counted[PFV]  
‘got counted’ (6.20)

The next step will be to see if this can be used in a command.

The second cognate among Gerdts’s patient-oriented transitive roots that I have some information for in SENĆOŦEN is shown in (4.78) as a transitive.
Again, attempts at eliciting the root have yielded passive sentences.

Again, I have not tried to use this root in a command, but predict that it will behave like its Halkomelem cognate. This root behaves like a Halkomelem unaccusative or transitive root with respect to the causative criterion as well. Recall from above and from §2.2.1 that some unaccusative roots can use the causative suffix in forming ditransitives.

Note that both of these roots do occur without the transitive suffix in resultatives and nominalised forms (4.83-4.84).

In this section, I have shown how a few SENÇOTEN roots can be classified as unaccusative or patient-oriented transitive according to Gerdts’s criteria for Halkomelem.

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51 Some causatives in SENÇOTEN have this kind of benefactive reading. Gerdts & Hukari (2006c: 141) note this possible use of causative in Halkomelem too.
Obviously it would be better to have tested many more roots in SENĆOŦEN, but this is a large task, and will have to wait for future research.

4.2.1.2 Comparing unaccusatives and achievements

In the previous section, I argued that the Halkomelem classes of unaccusatives and patient-oriented transitives can be extended to SENĆOŦEN. Assuming that this is correct, and given that there are many cognates in the two closely related languages, it is plausible to expect most of the SENĆOŦEN verb roots to behave like their Halkomelem cognates with respect to unaccusativity. Therefore, in this section, I compare Kiyota’s (2008) unaccusatives, which he argues are intransitive achievements, to the Halkomelem verb roots tested in the works of Gerdts (1988, 1991, 2006) and Gerdts & Hukari (2006a). I find that all of the Halkomelem cognates of the SENĆOŦEN intransitive achievements which are found in these sources are classified as unaccusatives or transitive roots with patient subjects. For example, the verb in (4.96-4.97) behaves like an achievement with respect to all of the tests. Here I reproduce the perfect (4.85) and culmination cancellation tests (4.86).

(4.85) \( k^{*}l=q^{*}o^{y} \theta o \) spe?\( \omega \)s
\( \text{PRF=die[PFV]} \quad \text{FEM.DET bear} \)
‘The bear is dead (the bear has died).’ (Kiyota 2008: 256)

(4.86) \# \( q^{*}o^{y} \) ta spe?\( \omega \)s ?i?=?awa s-\( q^{*}a^{w}i^{52} \)
\( \text{die[PFV]} \quad \text{GNRL.DET bear} \quad \text{COM=NEG RES-RES~die} \)
‘The bear died but it is not dead.’ – Contradiction! (Kiyota 2008: 58)

Its Halkomelem cognate \( qay \) is listed among the unaccusatives in Gerdt & Hukari (2006a: 10).

The following list of roots are included among Kiyota’s (2008) achievements and Gerdt & Hukari’s unaccusatives or transitives with patient subjects.

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\[52\] This is transcribed with plain (non-ejective) \([q] \) in Kiyota (2008: 58), but elsewhere is listed with \([q]\), and is always ejective in my fieldwork. I assume the \([q]\) is simply a typographical error.
Table 4.1: SENCOTEN cognates of Halkomelem unaccusatives

<table>
<thead>
<tr>
<th>SENCOTEN (APA)</th>
<th>Halkomelem</th>
<th>meaning</th>
<th>Halkomelem source</th>
</tr>
</thead>
<tbody>
<tr>
<td>la³³</td>
<td>la³³</td>
<td>get full (container)</td>
<td>Gerdts (1991)</td>
</tr>
<tr>
<td>moq</td>
<td>mqo</td>
<td>get full (person, of food)</td>
<td>Gerdts (2006)</td>
</tr>
<tr>
<td>X 9 &amp;</td>
<td>XOi</td>
<td>get hurt</td>
<td>Gerdts (2006)</td>
</tr>
<tr>
<td>q'³al</td>
<td>q'³ol</td>
<td>get cooked, ripen</td>
<td>Gerdts (2006)</td>
</tr>
<tr>
<td>čaq⁹</td>
<td>yœq⁹</td>
<td>catch fire</td>
<td>Gerdts (1991)</td>
</tr>
<tr>
<td>li³³</td>
<td>li³³</td>
<td>get cut</td>
<td>Gerdts (1991)</td>
</tr>
<tr>
<td>k*e³³</td>
<td>k*e³³</td>
<td>get burned</td>
<td>Gerdts (1991)</td>
</tr>
<tr>
<td>tec³³</td>
<td>tec³³</td>
<td>arrive</td>
<td>Gerdts (1991)</td>
</tr>
</tbody>
</table>

This is an unfortunately short list at the moment. Further research is required to see if the two approaches to classifying roots really do line up as they appear to from this comparison. However, there is only one potential mismatch. The following is listed as an achievement in Kiyota (2008) but as an unergative in Gerdts & Hukari (2006a: 5).

(4.87) čoilel ?i?=le³³w to Jack
almost COM=escape GNRL.DET Jack
'Jack is almost healed.' (Kiyota 2008: 270)

This verb only appears with respect to the ‘almost’ test. It may be that further testing will find this verb is not an achievement after all, or it may be that in this case the SENCOTEN and Halkomelem cognates do not line up and it is an unaccusative in SENCOTEN, or it may be that this is a true counterexample to my claim that situation type and unaccusativity line up. Only further fieldwork can determine which of these possibilities is correct.

4.2.2 Unergatives as atelic intransitives

Contrasting with unaccusatives is the class of unergatives. Gerdts’s (1988, 1991, 2006) and Gerdts & Hukari’s (2006a) canonical unergative roots have the following properties: 1) they do not take the control transitive suffix; 2) they do take the causative suffix and it is used as a transitiviser; 3) they do take the desiderative suffix, with the meaning ‘want to’; and 4) when they appear with the non-control reflexive, the clause has a ‘managed to’ interpretation which is not reflexive.
4.2.2.1 Unergatives in SENCOTEN

As with the unaccusativity criteria, there is some evidence that Gerdts’s (1991, 2006) criteria apply to SENCOTEN verbs as well. For example, the root in (4.88) can take the causative (4.89) and not the control transitive (4.90). Also, it can take the desiderative (4.91), and it yields a ‘managed to’ reading with the non-control reflexive (4.92).

(4.88) YÁ, SEN DOQ
yeʔ=sən łaʔ\*v
go=1SG.SBJ go.home[PFV]
‘I’m going home.’ (1.6)

(4.89) YÁ SEN DEQ,ISTW TE NE NENE
yeʔ=sən łaʔ*\-i\-stx* θə ne ηəənə?
go=1SG.SBJ go.home-REL-CAUS[PFV] FEM.DET 1SG.POSS offspring
‘I’m taking my daughter home (after school).’ (31.4)

(4.90) *łaʔ-t
go.home-C.TR[PFV]
‘take him/her/it home’ (2008)

(4.91) DOQ,ÁL,NEN
łaʔ*-əłən
go.home-DESID[PFV]
‘He wants to go home.’ (34.10)

(4.92) DOQNONET SEN
łaʔ*-nəŋ=əʔ=ən
go.home-NC.TR[PFV]-NC.REFL=1SG.SBJ
‘I finally made it home.’ (29.1)

There are also several SENCOTEN verbs which take the causative as a transitiviser, whose cognates in Halkomelem are unergatives according to this and the other criteria. Again, I predict that these SENCOTEN verb roots will behave like their Halkomelem cognates.

As discussed in §2.2, H. Davis (1997) argues that all verb roots in Salish languages, and by hypothesis all languages of the world, are underlyingly unaccusative (see also H. Davis & Matthewson 2009, who uphold the claim). This claim does not affect the discussion of unergatives in SENCOTEN. Davis does not claim that unergative is not a meaningful class to distinguish in Salish languages. He only claims that unergatives are all derived. Here I will assume, following the treatment of Halkomelem by Gerdts (1988, 1991, 2006) and Gerdts & Hukari (2006a), that some unergatives in SENCOTEN are not derived. However this assumption is not necessary for the claims made in this thesis.
When I talk about ‘underived unergatives’ or ‘unergative roots’, I could as easily talk about ‘zero-derived unergatives’.

4.2.2.2 Comparing unergatives and intransitive atelics

As with the unaccusatives and patient subject transitives in §4.2.1, I will assume that SENCÔTEN cognates of Halkomelem unergatives are also unergatives. This should allow me to compare verbs which are listed in Gerdts (& Hukari)’s work with verbs which are found in Kiyota’s work. Kiyota’s (2008) stage-level atelic verbs, both activities and inchoative states, appear to be equivalent to the unergatives. Unfortunately none of the atelic verbs listed in Kiyota’s (2008) thesis appear in Gerdts & Hukari’s list of unergatives or any of the other lists of roots they tested. Two of the verbs which I have tested as atelic have cognates in Gerdts & Hukari’s unergative lists. The unergativity tests are shown above in (4.89-92). The following examples show that these verbs are atelic according to Kiyota’s (2008) perfect test as well. (4.93) and (4.94) both refer to situations which have begun and not been completed. These reflect the inceptive reading of the perfect, which Kiyota argues is only available to activities and states (atelic predicates).

(4.93) Ɂ下令QE TEx NE NENE
kʷI=laɁx ən ənə?
PRF=go.home[PFV] FEM.DET 1SG.POSS offspring
'My child is going home/heading home.' (34.29)

(4.94) ɂ下令E SW
kʷI=ʔIwən=ʔa sxʷ
PRF=eat[PFV]=OBL=2SBJ
'Are you starting to eat?' (6.50)

In addition, I can confirm that several atelic intransitives take the causative as a transitiviser, a canonically unergative trait. A list is given here. The atelic roots were tested by Kiyota (2008) and in my fieldwork; unless otherwise indicated the causatives come from my fieldwork.
Table 4.2: Atelic verbs taking the causative suffix

<table>
<thead>
<tr>
<th>Atelic verb</th>
<th>Root meaning</th>
<th>Causative</th>
<th>Causative meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>k*ey</td>
<td>'get hungry'</td>
<td>k*eytəŋ (passive)</td>
<td>'be starved by someone'</td>
</tr>
<tr>
<td>x*aŋ</td>
<td>'cry'</td>
<td>x*aŋtəŋ (passive)</td>
<td>'be made to cry'</td>
</tr>
<tr>
<td>tečaŋ</td>
<td>'get angry'</td>
<td>tečaŋtx*</td>
<td>'anger someone'</td>
</tr>
<tr>
<td>?il9n</td>
<td>'eat'</td>
<td>?il9nitx*</td>
<td>'feed someone'</td>
</tr>
<tr>
<td>lak^</td>
<td>'go home'</td>
<td>lak^istx*</td>
<td>'take someone home'</td>
</tr>
<tr>
<td>xi?xa?</td>
<td>'get embarrassed'</td>
<td>xe?xɑ?tx*</td>
<td>'embarrass someone' (Montler 1986: 166)</td>
</tr>
</tbody>
</table>

The verbs in table 4.2 test as atelic and also take the causative suffix, with a normal causative reading. This provides further evidence that unergative verbs are generally atelic, since Kiyota’s and Gerdts’s tests pick out the same group of intransitives.

4.2.3 Classifying intransitives: comparison of approaches

In the previous two subsections, I provided some evidence that Kiyota’s telic intransitives are unaccusatives or patient subject transitives according to Gerdts & Hukari’s criteria; and that his (stage-level) atelic intransitives are unergatives. Setting aside for a moment the obvious need to consider a far greater number of verbs, I wish to consider whether it would be possible to conflate the two classes. We could not give up the situation types, since the unaccusativity criteria only classify intransitive verb roots. However, perhaps it is possible to give up the unaccusativity distinction. This would be in line with the approach of Van Valin (1990), who argues that the unaccusative-unergative distinction generally is unnecessary, as all behaviour of unaccusative vs. unergative verbs can be predicted on the basis of event structure (see §2.2).

If we take that approach, we would be saying that all of the criteria for canonical unaccusatives are really criteria for intransitive telic verbs, and all of the criteria for canonical unergatives are really criteria for intransitive atelic verbs. There are two differences between the event structure and the unaccusativity approach. First, the former defines predicate types according to their semantic structure, while the latter defines verbs according to their syntactic argument structure at a level deeper than the surface. H. Davis
& Demirdache (2000) have argued that argument structure parallels event structure in Salish languages. Howett (1993: 28, 40), in her thesis on predicate classification in Thompson, remarks that “aspect” (i.e., telicity) appears to have an effect on a verb’s behaviour as unaccusative or unergative. The extent to which unaccusativity and situation type are conflated then depends on assumptions about the syntax-semantics interface.

The second difference between the situation type and the unaccusativity approach is that situation type in SENCOTEN distinguishes verbs based on their temporal properties of telicity and possibly stativity. Unaccusativity distinguishes verbs based on agentivity. There is a class of verbs with non-agentive subjects which take the causative suffix but not the control transitive: this is the class of inchoative states. In this respect they appear to be unergatives. Although Gerdts (1991, 2006) and Gerdts & Hukari (2006) look at individual-level states and positional statives, they do not discuss the Halkomelem cognates of inchoative states with respect to unaccusativity. It will be necessary to test them according to the other criteria in order to determine their behaviour. If they are more like unergatives, but have non-agentive subjects, it seems that atelicity, and not agentivity, is important in distinguishing intransitive verbs. Inchoative states are atelic like activities and both behave the same way in many respects.

One reason not to conflate the unaccusativity and situation type approaches is that they both make distinctions that the other does not make. The refined unaccusativity approach of Gerdts (2006) distinguishes the two classes of transitive roots, one with agent subjects and one with patient subjects. These roots are not distinguished in the situation type account as it currently stands. The situation type account, as mentioned above, distinguishes among transitive verbs as well as intransitives.

Lastly, theoretically, the situation type and unaccusativity should apply at different levels. Unaccusativity is taken to define verbs, while situation type is often argued to apply to predicates which include the verb, its arguments, and sometimes some adverbs or other modifiers. The problem with Salish languages is that there is very little evidence yet that situation type distinctions apply at any level other than the verb, since so much information
about the arguments is given by the valence/control suffixes appearing on the verb itself. Kiyota (2008: 227) suggests that situation type applies at the lexical level in SENCÔTEN, but that it can be shifted at the morphological or syntactic level. For now, I will continue to treat unaccusativity and situation type as two separate classification systems for SENCÔTEN, and that unaccusativity (like argument structure generally) is relevant to situation type. However, it is hoped that the comparison made in this section will provide the groundwork for further research on this question.

4.3 Control

In §2.2, we saw that the control vs. non-control distinction has been of considerable interest in the literature on Salish languages, generating several different views of its role. There are four previous approaches to Salish control. 1. Control verbs indicate that the subject participant has some normal amount of control over the situation, while non-control verbs indicate that the subject participant has less than the normal amount of control (Beaumont 1977; Galloway 1978; Thompson 1979a, b, 1981, 1985; Saunders & P. Davis 1982; L. Thompson & M. Thompson 1992). 2. The control suffix is actually a perfective suffix (Hébert 1979, 1982). 3. Control verbs describe situations that need not successfully culminate, while non-control verbs describe situations which need to successfully culminate (B. Carlson 1996; Watanabe 2003, citing Davis’s 1978 observation and Kroeber’s unpublished work; Bar-el et al. 2005; Kiyota 2008; Turner 2010; Jacobs fc). 4. Control verbs describe situations which proceed as normal, while non-control verbs describe situations which are noteworthy or have unexpected results (Gerdts 2008). In this section, I will provide further evidence for the third proposal, that control vs non-control distinction in SENCÔTEN is one of event structure, and thus affects situation type.

There are two types of control distinction I am not discussing. I am not discussing the phenomenon of ‘out of control’ found in several other Salish languages (B. Carlson & L. Thompson 1982; Demirdache 1996, 1997; Jacobs 2007; H. Davis, Matthewson &
Rullman 2009; see §2.2.2). This phenomenon is probably not found in SENČOTEN. The second type of distinction I am not discussing is the phenomenon of control and non-control roots discussed by L. Thompson (1985) and L. Thompson & M. Thompson (1992). As discussed in §2.2.2, these distinctions are based on ideas of agency, and the control vs. non-control distinction among roots is roughly the same distinction as that of unaccusativity. Unaccusativity (unlike the root-level control distinction) has been subject to large-scale empirical testing Gerds (1988, 1991, 2006) and Gerds & Hukari (2006a) and theoretical analysis (H. Davis & Demirdache 2000). The relationship of unaccusativity to situation type was covered in §4.2, so I do not need to discuss it further here.

In all previous work, to my knowledge, focussed investigations of the situation type nature of the control vs. non-control distinction have only dealt with transitives. However, both the control and non-control transitives can be subject to further de-transitivising morphology: reflexive, reciprocal, and passive. Jacobs (fc) and Turner (2010) have taken the investigation of control and culmination further, looking at control vs. non-control pairs of derived intransitives in Skwxwú7mesh and SENČOTEN respectively. In doing the fieldwork which informed Turner (2010), I found that control and non-control reflexives with core reflexive semantics behave like their control and non-control transitive counterparts with respect to situation type: control reflexives behaved like Kiyota’s accomplishments and non-control reflexives like Kiyota’s achievements. I also found that when the semantics of the reflexives was less classically reflexive, this dichotomy was far less clear.

In this section I expand on Turner (2010) by considering also control and non-control passives. Each subsection focusses on a control non-control pair: §4.3.1 on transitives, §4.3.2 on passives, and §4.3.3 on reflexives. I have not yet been able to test reciprocals, so they will not be included here. The conclusion reached is that the control

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53 Though see Jacobs’s (2007) analysis of Skwxwú7mesh txw- as an ‘out of control’ affix. This is presumably cognate to the SENČOTEN inchoative prefix (§4.1.2.2) and it may be that Jacobs’s analysis applies to this as well, given further investigation.
feature contributes specifically to the situation type of predicates, but that valence change itself does not. The evidence presented here supports the findings in much of the recent work on control: that really the distinction between control and non-control in Central Salish languages is not about agent control, but rather is one of situation type: non-control verbs entail culmination, while control verbs encode intention but do not entail culmination.

4.3.1 Transitives

This section looks at control and non-control transitives in SENĆOŦEN. The control and non-control transitive suffixes are two of the three main suffixes used to indicate syntactic transitivity in the language, the third being the causative. This thesis leaves consideration of the typical situation type of causatives to further research. If we extend Gerdts & Hukari's (2006a) characterisations to SENĆOŦEN, we can say that the control transitive suffix is typically used to transitivise unaccusatives. This is also assumed by Bar-el et al. (2005), Bar-el (2005) and Kiyota (2008). The non-control transitive, on the other hand, can be used with unaccusative or unergative roots.

This section recaps and confirms Kiyota's observations regarding the situation type of control and non-control transitives: section 4.3.1.1 discusses how control transitives typically denote accomplishment predicates, and section 4.3.1.2 how non-control transitives typically denote achievement predicates.

4.3.1.1 Control transitives

The verb stems analysed in this section all contain the control transitive suffix -t. As illustrated in chapter 3, regardless of the bases on which they are formed, all control transitive stems have a subject which denotes an agent and an object which denotes a

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54 Thanks to Henry Davis for situating this implication of my findings in the Salish literature and to Paul Kroeker for pointing me to much of the Salish and Austronesian literature on the topic.
55 As discussed in chapter 3, and detailed in Montler (1986, 1989) and Leonard & Turner (2010), a schwa appears in perfective forms, e.g., kwon-at 'look at something'.
patient acted on by the agent. Kiyota (2008) tested several control transitives for situation
type and found that they all patterned similarly with respect to his criteria. In this they
pattern with Skwxwú7mesh control transitives (Bar-el 2005, Bar-el et al. 2005) and
Stát’imcets directive transitives (Matthewson 2004, Bar-el et al. 2005). These authors call
the situation type of control transitives accomplishments.

Kiyota’s (2008) tests were outlined in §2.1.2. He first shows that accomplishments
are distinct from the atelic situation types (states and activities) in their out of the blue
translations and in their interpretation in the perfect. When presented with out of context
perfective, tenseless sentences, speakers tend to translate atelic predicates using the
English present tense (progressive for non-statives) (a) and telic predicates using the
English past non-progressive (b).

(4.95) qekʷ-oŋ tiʔe Jack
rest-MID[PFV] PROX.DEM Jack
‘Jack is resting. / * Jack rested.’ (Kiyota 2008: 31)

(4.96) x̣aʔ-ot=sn tθə sčeenoxʷ
get.dried-C.TR[PFV]=lSG.SBJ GNRL.DET salmon
‘I dried the salmon.’ (Kiyota 2008: 250)

When the perfect clitic kʷt is used, atelic predicates can have a perfect of inception
reading, while telic predicates cannot, and normally get a perfect of result or perfect of
recent past reading.

(4.97) kʷt=χʷoŋ θə Mary
PRF=cry[PFV] FEM.DET Mary
‘Mary is crying (Mary has just begun to cry).’ (Kiyota 2008: 255)

(4.98) kʷt=laʔ-at=son tsə nə skʷatən
PRF=get.full-C.TR[PFV]=1SG.SBJ GNRL.DET 1SG.POSS bucket
‘I have filled up my bucket already.’ (Kiyota 2008: 35)

As seen in the above sentences, control transitives test as telic.

As discussed in chapter 2, the characterising quality of accomplishments found in
these sources is that they are generally interpreted as culminated or culminating (i.e.,

56 I use the term agent here as in Dowty’s (1991) proto-agent (or the Role and Reference Grammar
actor: something more agent-like than that which is acted upon (the patient or undergoer) (Van
Valin & LaPolla 1997). These terms are useful in describing an opposition between two broad
classes of participants, but I do not mean agent to imply volitionality, control, or animacy, since not
all agents have these characteristics.
telic), but this culmination can be cancelled, even in the perfective. Thus they are compatible with statements that the event was not completed or that it has not been completed yet.

(4.99)  

<table>
<thead>
<tr>
<th>Language</th>
<th>Verb</th>
<th>Agent</th>
<th>Complement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WEĆET</strong></td>
<td><strong>SEN</strong></td>
<td>TFE</td>
<td>Jack</td>
</tr>
<tr>
<td><strong>xʷo dém-ot=sən</strong></td>
<td><strong>tə</strong></td>
<td>Jack</td>
<td></td>
</tr>
<tr>
<td>**get.woken-C.TR</td>
<td>PFV=1SG.SBJ**</td>
<td><strong>GNRL.DET</strong></td>
<td>Jack</td>
</tr>
</tbody>
</table>

Notice that the translations of control transitives with cancelled culminations are sometimes infelicitous in English (as in 4.99). These are literal translations which are intended to make the point that **SENĆŐTEN** and other Salish languages differ from English with respect to cancellation requirements in the perfective aspect. However, when the speakers I worked with provided their own translations for such sentences, the translations were often less literal and perfectly felicitous in English (e.g., ‘I was trying to wake up Jack’). This is reflected in §4.3.2 on passives and §4.3.3 on reflexives.

Replications of Kiyota’s (2008) tests in my fieldwork with two different **SENĆŐTEN** speakers has yielded variable results. I found that straight felicity judgements of cancelled phrases, such as that shown in (4.99), usually prompted a comment that the imperfective form of the verb would be better, as in (4.100) below.

(4.100)  

<table>
<thead>
<tr>
<th>Language</th>
<th>Verb</th>
<th>Agent</th>
<th>Complement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WÍT</strong></td>
<td><strong>SEN</strong></td>
<td>TFE</td>
<td>Jack</td>
</tr>
<tr>
<td><strong>xʷo y=t=sən</strong></td>
<td><strong>tə</strong></td>
<td>Jack</td>
<td></td>
</tr>
<tr>
<td><strong>get.woken(IPFV-C.TR=1SG.SBJ</strong></td>
<td><strong>GNRL.DET</strong></td>
<td>Jack</td>
<td></td>
</tr>
</tbody>
</table>

I believe this does not undermine Kiyota’s claims, but rather is consistent with his argument that the control transitive accomplishments have a strong implicature of culmination. What is relevant to this chapter, too, is that it is consistent across predicates. Every time I asked for a cancellation of a perfective control transitive, the speakers did one of two things: 1. they accepted it outright as grammatical, or 2. they did not reject it but
said they preferred the imperfective. This is in contrast with attempted cancellations of non-control transitive (see §4.3.1.2 below) which were either rejected outright or were transformed into sentences not involving culmination cancellation.

Also, with an example that provided a bit more context, the culmination cancellation was fine.

(4.101) LO, ESEN CE, ČEKET TFE STOTLE, 
la?ω=san=κ'ω? 
Čaq·=st 
θω 
ultwiklia? 
GNRL.AUX=1SG.SBJ=REM 
burn-C.TR#PFV 
GNRL.DET 
leaf

I, EWE ČSE ČEKs 
?i?=ωωω k*ωω Čaq·-s 
COM=NEG 
REM.DET 
get.burned-3POSS

NIL ČS TO,MENs
nih k*=nānāq-s
3PRED 
COMP=NMLZ 
wet-3poss

'I burned the leaves but they did not burn because they were wet.' (16.6, based on Kiyota 2008: 265)

This suggests that the reason the speakers I work with do not really like cancelled sentences like that in (4.99) is that there is no context attached to them which would make the non-culmination plausible.

Kiyota (2008) shows that control transitives behave differently from non-control transitives also with respect to the 'almost' test. Control transitives are ambiguous with čolel 'almost': they can have a reading where the event is almost started or where the event has been started and is almost finished. In either case, we do not know whether the event actually will finish.

(4.102) čolel=san 
?i?=le-t 

tso 
latem

almost=1SG.SBJ COM=get.fixed-C.TR#PFV 
GNRL.DET 
table

'I almost fixed the table.' 
Reading: √I didn’t start fixing the table / √I started fixing the table, but didn’t finish. (Kiyota 2008: 63)

The reading which control transitives do get and non-control transitives do not is the first reading, where the agent did not start carrying out the event. I have found this reading possible with the control transitives I have tested too.
I did not check to see whether (4.103) can also be interpreted as meaning that I started breaking the table but did not finish. The important interpretation here is that 'almost' gets the "event cancellation" reading, where I did not even start breaking the table. This is the one which non-control transitives do not get, according to Kiyota (2008). This shows that with control transitives, it is enough that the agent participant has the intention to carry out the event. This point is revisited in the discussion on control reflexives, both with the 'almost' test and the culmination cancellation test.

Since Kiyota (2008) spends a lot of time discussing the situation type of control transitives, I will not repeat various examples here. I replicated the culmination cancellation test for six of the ten control transitives he tested and listed in his thesis and the 'almost' test for two of the four control transitives he tested and listed. I had trouble replicating the 'almost' test, and so I am largely relying on Kiyota's findings with respect to this test.

In this section I have summarised Kiyota's findings regarding the event structure of control transitives: it is enough that an event is initiated in order for a perfective control transitive to be used. My re-checking of some verbs with the culmination cancellation test has provided support for Kiyota's (2008) claim (following Matthewson 2004, Bar-el 2005, Bar-el et al. 2005) that control transitives do not entail culmination but carry a culmination implicature. In the next section, I discuss how non-control transitives differ in this respect.

4.3.1.2 Non-control transitives

The suffix -n(x^)*57 was identified in chapter 3 as the non-control transitive suffix (Montler's (1986) non-control transitive). Typically, non-control transitives derived from unaccusatives have a subject which is an agent and an object which is a patient, while

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57 As discussed in chapter 3, Montler (1986: 166) argues that the [ox^*] is deleted before following consonant initial suffixes. See also Wiltshchko (2003) for arguments that [ox^*] is not part of the non-control transitive suffix in Halkomelem.
non-control transitives derived from unergatives have a subject which is causer and an object which is causee.

(4.104) **KELNOW SEN CÉ, TFE SKÁUT**

\[q^{'9}l-nax'^=sän=k^{'9}? tə sqew\theta\]

get.roasted-NC.TR[PFV]=1SG.SBJ=PST.DIR.EV GNRL.DET potato

'I finally managed to bake/roast the potatoes.' (2.6)

(4.105) **NEKNOW SEN TFE KAK**

\[naq'^{-nax}'^=sän tə qeq\]

go.to.sleep-NC.TR[PFV]=lSG.SBJ GNRL.DET baby

'I finally made the baby go to sleep.' (1.50)

As discussed in §2.2.2 and at the beginning of this section, the traditional characterisation of non-control transitives is that they involve a less than usual degree of control on the part of the agent, such that an event is achieved through difficulty or accidentally (e.g., L. Thompson 1985). However, several more recent sources have shown that control and non-control transitives differ in their culmination requirements. Non-control transitives, it is argued, entail culmination (J. Davis 1978, B. Carlson 1996, Watanabe 2003, Bar-el et al. 2005).

Kiyota (2008) extends this argument to SENCOTEN by showing that non-control transitives behave like unaccusatives with respect to other situation type tests. Thus, he classifies them as achievements. First, they are telic: they have a past perfective translation in out of the blue sentences (4.106) and a completed interpretation with the perfect (4.107).

(4.106) **X9l-n9x'^=sän to Jack**

get.hurt-NC.TR[PFV]=1SG.SBJ GNRL.DET Jack

'I hurt Jack.' (Kiyota 2008: 252)

(4.107) **kH=q'^9y-n9x' ^=sän 09 spe?9s**

PRF=die-NC.TR[lSG.SBJ FEM.DET bear

'I have killed the bear.' (Kiyota 2008: 257)

Non-control transitives behave like achievements, not accomplishments. First, they cannot have their culmination cancelled or continued.

(4.108) **lal\~e-nax'^=sän k^*si?\omega pool**

get.filled-NC.TR[PFV]=1SG.SBJ REM.DEM pool

#?!?=?awa k^*s lal\~p

COM=NEG COMP=NMLZ get.filled[PFV]

'I filled the pool, but it did not get full.' (Kiyota 2008: 266)
Second, they are unambiguous with ČE,LÁL čəlel ‘almost’, yielding only an interpretation where the event started and almost finished.

(4.109) čəlel=son tiʔ=le-nax* tə no səxʷəł
almost=1SG.SBJ COM=get.fixed-NC.TR[PFV] GNRL.DET 1SG.POSS 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. (Kiyota 2008: 63)

I have not replicated the culmination cancellation test or ‘almost’ test for non-control transitives in my fieldwork. Two non-control transitives with ČE,LÁL čəlel ‘almost’ do appear in my corpus of fieldwork data, but it is not clear what their interpretation is. Both are verbs meaning ‘finish, stop, quit’, and it is not clear from a basic translation what the difference is between starting to finish something and finishing finishing something.

(4.110) ČE,LÁL I, ŠEKNOW LTE TFE SCAX LTE
čəlel tiʔ=səq-naxʷ=tsə s-cəy-tsə
event COM=get.finished-NC.TR[PFV]=1PL.SBJ GNRL.DET NMLZ-work-1PL.POSS
‘We’re nearly finished our work.’ (5.42)

Thus, these examples do not provide support for Kiyota’s claims, but they do not provide evidence against them either.

The ‘almost’ test does not provide particularly strong evidence of the difference between accomplishments and achievements. First, very few verbs are cited in Kiyota’s work and I have not added to this number significantly for control or non-control transitives. I also found that the test was very difficult to run, as it was not always clear even to me what the difference would be between the ‘almost started’ and ‘almost finished’ interpretations. Bar-el (2005) also notes how difficult the test is to run, and suggests (following Pustejovsky 1991 and Wilhem 2003: 82) that the test distinguishes complex from non-complex events, rather than accomplishments from achievements. Bar-el finds that the test does not distinguish situation types in Skwxwú7mesh at all. Another possibility is that it distinguishes intentional from non-intentional situations in SENĆOŦEN. This idea is revisited in §4.3.3 when I look at non-control reflexives.

This section has summarised Kiyota’s (2008) classification of control and non-control transitives as accomplishments and achievements. I showed that, although
more verbs will need to be tested to make a strong claim, replication of his tests with the same and other verbs has not yielded any counter evidence. Control transitives in general appear to behave as accomplishments, with a culmination implicature; non-control transitives in general appear to behave as achievements, with a culmination entailment. However, recall that non-control transitives constitute a more varied group than control transitives, since they may be formed on both unaccusative and unergative verb roots. All of the non-control transitives tested by Kiyota (2008) have unaccusative roots, or roots that can behave like unaccusatives or unergatives (Gerdts & Hukari’s (2006a) “swingers”). Since unaccusatives are argued to denote achievement predicates (Kiyota 2008; §4.2), it may be that non-control transitives simply behave like the roots from which they are derived. Section 4.3.3 will show that non-control reflexives behave differently depending on whether they have unaccusative or unergative roots. Thus, it may be that non-control transitives based on unergative roots (activities) will also behave differently and pattern as activities or accomplishments, rather than achievements.

4.3.2 Passives

All three transitive types (control, non-control, and causative) can be passivised. As shown in chapter 3, the verb of a passive sentence always carries a passive suffix -卫健委, which follows the transitivising suffix. There are two general uses of the passive. One use is based on pragmatic context: the passive may be used when the agent of an situation is unknown or the speaker does not want to specify the agent, as in (4.111) or when the actual situation took place without the speaker knowing about it, as in (4.112).

(4.111) .mutex-na-logy=son
          get.hurt-C.TR/PFV-PASS=1SG.SBJ
       ‘Somebody hurt me.’ (Montler 1986: 181; gloss mine)

(4.112)  LENTON               TFE      ŠKÖ,TEN
        lat-na-logy          tóta       šq“aʔton
     get.filled-NC.TR[PFV]-PASS  GNRL.DET  bucket
       ‘They filled the bucket up without you knowing.’ (33.21)

Watanabe (2003: 288) notes that the Comox passive in used in this way and thus also in generic sentences with no specified agent.
The second use of the passive is syntactic: the passive is used where an active sentence would be ungrammatical due to constraints on subject-object combinations. This is discussed by Jelinek & Demers (1983) for the Lummi dialect of Northern Straits Salish and for other Central Salish languages by various authors (Hess 1973, L. Thompson & M. Thompson 1971, Hukari 1976, Kuipers 1967; all cited in Jelinek & Demers 1983). The exact nature of the restriction varies from language to language, but basically it involves restrictions on active sentences with third person subjects and first or second person objects. In Lummi, the restriction is against an active sentence with a third person subject with a first or second person object and thus a corresponding passive must be used (4.113).

(4.113) a. \( \chi\text{-i-t-} \eta=\text{s}\text{on} \)
\text{come.to.be.known-PERSIS-C.TR[PFV]-PASS=1SG.SBJ}  
'I am known (by someone).' (Jelinek & Demers 1983: 168)  
[active sentence is ungrammatical]

b. \( \chi\text{-i-t-} \eta=\text{sx} \)
\text{come.to.be.known-PERSIS-C.TR[PFV]-PASS=2SBJ}  
'You are known (by someone).' (Jelinek & Demers 1983: 168)  
[active sentence is ungrammatical]

There is also a restriction against full DP subjects with 3rd person pronominal objects.  

(4.114) \( \chi\text{-i-t-} \omega \)
\text{come.to.be.known-PERSIS-C.TR[PFV]-PASS QBE GNRL.DET man}  
'It is known by the man.' (Jelinek & Demers 1983: 168)  
[active sentence is ungrammatical]

In my fieldwork, there are no example sentences with the illicit person combinations reported for Lummi by Jelinek & Demers (1983). In addition, when I have asked for sentences which happen to have a third person agent and first or second person patient, these have been given as passives.

(4.115) \( \mathbf{C\text{CÅN}ETEN SEN} \)
\( \mathbf{ET} \)  
Janet  
\( ?\omega=\lambda \)  
Janet  
\( \text{yell-C.TR[PFV]-PASS=1SG.SBJ} \)  
\( \text{OBL=PN.DET} \)  
Janet  
'Janet yelled at me.' (2006)  
[translation by speakers was from English to SENCÅTEN]

There is a converse restriction against passives with local (1st and 2nd person) pronouns in obliques, however it is possible to form a passive with a local agent which is realised using a predicative pronoun. This is used to emphasise the local agent. (Jelinek & Demers 1983: 173).
However, as discussed in §3.3.9, Montler (1986: 153-154) states that the restriction in SENČOTEN is only against third person subjects with second person objects, and that even this is not a total restriction.

The passive does not appear to be used to describe a different event from its corresponding transitive. Of course with passives motivated by person hierarchy restrictions (4.113-4.115), there is no active sentence to compare the passive with, but the passive is used to describe the same type of a situation that the expected (but ungrammatical) active sentence would describe. Montler (1986: 179) notes that passive does not affect the “control status” of a verb. The passive thus is not predicted to affect the event structure of a predicate and I predict that passives should behave like their transitive counterparts with respect to Kiyota’s situation type tests.

In this section, I will show how the prediction is borne out in the verbs I have tested. So far, it appears that control and non-control passives behave like their transitive counterparts with respect to Kiyota’s situation types. Thus, control passives are accomplishments and non-control passives (at least those with unaccusative roots) are achievements. It is expected that causative passives behave like causatives and pattern like activities, but this has not been tested. As with the previous section, this section is split into two subsections: 4.3.2.1 deals with control passives and 4.3.2.2 with non-control passives.

4.3.2.1 Control passives

In the introduction to this section, I have predicted that control passives will behave like control transitives. The reason for this prediction is that passive seems to be used for discourse focus purposes and to describe person combinations which are ungrammatical in the active; and not to describe a different event from a corresponding active sentence. The opposite prediction is also possible: if the difference between control transitives on the one hand and unaccusatives and non-control transitives on the other is fundamentally to do with the control exerted by the subject participant, we might expect
that control passives also behave like achievements, since they, like unaccusatives, have a
subject which is a patient and thus lacking control over the event. However, control
passives do behave like control transitives with respect to situation type. They are
accomplishments and not achievements according to both the culmination cancellation and
‘almost’ tests. First, they are compatible with an assertion that they did not culminate or
have not yet culminated.

(4.116)  

<table>
<thead>
<tr>
<th>WEC, ETEN</th>
<th>TFE</th>
<th>Jack</th>
</tr>
</thead>
<tbody>
<tr>
<td>xʷəχ-ət-əq</td>
<td>təə</td>
<td>Jack</td>
</tr>
<tr>
<td>wake.up-C.TR\PFV-PASS</td>
<td>GNRL.DET</td>
<td>Jack</td>
</tr>
</tbody>
</table>

I EWE  
ʔ??=xʷəə | WÍS  
CONTIN=NEG | COMP=NMLZ  
‘Somebody was waking Jack up and he wouldn’t wake up.’ (32.7)  
[lit. ‘somebody woke Jack up but he didn’t wake up’]

(4.117)  

<table>
<thead>
<tr>
<th>ÑKETEN</th>
<th>I WU,Á SE</th>
<th>SEKNON</th>
</tr>
</thead>
<tbody>
<tr>
<td>qí-ət-əŋ</td>
<td>s=əq=n-as?</td>
<td>s=əq-n-as?</td>
</tr>
<tr>
<td>get.finished-C.TR\PFV-PASS</td>
<td>COM=not.yet=FUT</td>
<td>get.finished-NC.TR\PFV-PASS</td>
</tr>
</tbody>
</table>
| ‘They’re trying to finish it but they haven’t finished it yet.’ (33.16)  
[lit. ‘it got finished but it didn’t manage to get finished’]

(4.118)  

<table>
<thead>
<tr>
<th>LETETEN</th>
<th>TFE</th>
<th>ŠKOTEN</th>
</tr>
</thead>
<tbody>
<tr>
<td>ləʔə-ot-əŋ</td>
<td>təə</td>
<td>s-qʷ-aʔ-ton</td>
</tr>
<tr>
<td>get.filled-C.TR\PFV-PASS</td>
<td>GNRL.DET</td>
<td>NMLZ-water-INTR(LS)</td>
</tr>
</tbody>
</table>

I WU,Á SE  
ʔ??=xʷəə | SLÁTEŁ  
COM=not.yet=FUT | RES-get.filled\RES  
‘They’re trying to fill the bucket but it’s not full yet.’ (33.27)  
[lit. ‘the bucket got filled but it’s not full yet’]

(4.119)  

<table>
<thead>
<tr>
<th>LÁ, TEN</th>
<th>TFE</th>
<th>SNEWEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>leʔ-ə-əŋ</td>
<td>təə</td>
<td>snaʔʷəə</td>
</tr>
<tr>
<td>get.fixed-C.TR\PFV-PASS</td>
<td>GNRL.DET</td>
<td>canoe</td>
</tr>
</tbody>
</table>

I WU,Á SE  
ʔ??=xʷəə=əə | LÁ, TEN  
COM=not.yet=FUT | get.fixed-C.TR\PFV-PASS  
‘They’re working on it but they haven’t fixed it yet.’ (33.35)  
[lit. ‘the canoe got fixed but it hasn’t been fixed yet’]

In this they behave like their control transitive bases. Compare (4.116) with (4.99) above.

When it comes to the ‘almost’ test, control passives are able to have an
interpretation where the the agent almost started to carry out the event. Recall that this
reading was argued by Kiyota (2008) to be only available to accomplishments, i.e., control transitives.

(4.120) Č>E,LÁL I WEČETEŃ TE Katie
čalel ʔi?=x^æ-ot-øŋ ʔø Katie
almost COM=\#wake.up-C.TR\PFV\PASS FEM.DET Katie
They almost woke her up. (they were going to wake her up and decided not to) (38.19)

(4.121) Č>E,ELÁL I LETETEŅ TE
čalel ʔi?=lø^ø-ot-øŋ
almost COM=get.filled-C.TR\PFV\PASS
‘They almost filled (my bucket).’ (could be they thought about it but didn’t OR the bucket is almost full) (37.55)

(4.122) Č>E,LÁL I LÁ,TEŅ TFE SNEWEĽ
čalel ʔi?=k^øs-ot-øŋ tøø snax^ø t
almost COM=get.fixed-C.TR\PFV\PASS GNRL.DET canoe
‘They almost fixed the canoe’ OR ‘They almost got the canoe fixed.’ (38.26)

(4.123) Č>E,LÁL I QSETEŅ TFE TÅLE
čalel ʔi?=k^øs-ot-øŋ tøø telø
already COM=get.counted-C.TR\PFV\PASS GNRL.DET money
‘We’re going to count the money pretty soon.’ (37.51)

The translations given in (4.120-4.123) were provided by one of the speakers I worked with. Some of these translations point to an ambiguity whereby the control passive could describe an event which has almost started or almost finished. Crucially, all of the above examples show that an interpretation where the event has almost started is possible. For this reason they behave like the control transitives tested by Kiyota (2008) and pattern as accomplishments, not achievements.

4.3.2.2 Non-control passives

I predicted that non-control passives would behave like their non-control transitive active clauses, because, again, we would not expect passivisation to affect event structure.

So far, this prediction is borne out. Non-control passives are not compatible with an assertion that they have not or have not yet culminated. Compare the non-control passives below with the control passives in (4.120-4.123) above.
Thus, in terms of culmination cancellation, the non-control passives I have tested behave like their non-control transitive bases (compare 4.126 with 4.108 above), and appear to entail culmination.

With cäel 'almost', non-control passives always refer to an event which has been started but not yet completed.
(4.130) ĈE, LÁL ĈE, LÁN, NEN TFE SNEWĔL
ĉalel ?i?=le?n-øŋ
tøø snax=øľ
almost COM=get.fixed-NC.TR[PFV]-PASS GNRL.DET canoe
‘They almost got the canoe fixed.’ (C. Turner: “They thought about it?” Speaker: “Well, they’re doing it.”) (38.27)

(4.131) ĈE, LÁL I XEL, NON TFE PUĆ
ĉalel ?i?=xal-na-ŋ
tøø puk*
already COM=get.written-NC.TR[PFV]-PASS GNRL.DET book
‘They almost managed to sign the book.’ (they were working on it, they weren’t finished signing it yet) (38.14)

It seems from the discussion I had with the speaker that (4.128-4.131) cannot refer to events which were almost started, but only events which were almost or are almost finished. If this is the case, non-control passives behave like their non-control transitive bases. Again, compare (4.130) with (4.109) in §4.3.1.

As with non-control transitives, it is especially necessary to test more non-control passives to see how robust this generalisation is. All of the non-control passives I have tested so far have unaccusative verb roots. It may be that non-control passives with unergative or adjectival roots behave differently. This is what we find with non-control reflexives, as will be shown in the next section.

The findings shown in this section provide support for the idea that the control distinction is fundamentally one of event structure and not one of agentivity. The reasoning behind this is as follows. Unaccusatives and control passives are both used to describe events with an agent and a patient in the real world. In fact, H. Davis & Demirdache (2000) have even argued that unaccusatives have an underlying causative event structure, which includes an agent that gets suppressed at the surface level. However, unaccusatives and control passives differ in their situation type properties: unaccusatives are achievements and control passives are accomplishments. Even though control passives do not have a subject which is an agent, they still behave like control transitives. Thus, it appears that the feature of control affects event structure, but that valency and voice do not.

This hypothesis is supported in §4.3.3 on reflexives.
This section looks at one more control/non-control pair. Like passives, reflexives are another type of intransitive verb derived from a transitive base. This derivational relationship between reflexives and transitives is argued for by Gerdts (2000) for Halkomelem and Turner (2010) for SENCOTEN and was discussed in §3.3.7. There are both control and non-control reflexives.

\[(4.132) \quad \text{YÁ, SEN SE, TSESET} \quad \text{E TFE ŠTEM,CES} \]
\[\text{ye?=sàn=sà? } \quad \text{tso-sat} \quad ?\alpha \ t\theta \ Štanmk\text{"a}s \]
\[\text{go=1SG.SBJ=FUT get.near-C.TR;C.REFL\text{"PFV}} \quad \text{OBL GNRL.DET car} \]
‘I’m going to go closer to the car.’ (7.27a)

\[(4.133) \quad \text{TESNONET TTE NE SCÂCE} \quad \text{TFE NE ŠČÁČE} \]
\[\text{tas-na-nat} \quad t\theta \ n\alpha \ Ščèča \]
\[\text{get.near-NC.TR[PFV]-NC.REFL GNRL.DET 1SG.POSS friend} \]
\[\text{E TFE ŠWOÎS} \quad ?\alpha \ t\theta \ Šx\text{"ais} \]
\[\text{OBL GNRL.DET finish.line} \]
‘My friend managed to reach the finish line.’ (2.45)

Unlike with passives, the event which a reflexive describes is different from its corresponding transitive, since with a reflexive there is an identity between agent and patient, both of which are expressed by the syntactic subject. With a transitive, the subject and object represent two distinct participants. However, I have still found that reflexives behave like their corresponding transitives with respect to the situation type tests. This will be shown for control reflexives in §4.3.3.1 and non-control reflexives in §4.3.3.2.

### 4.3.3.1 Control reflexives

We saw in §4.1 that the suffix \(-\text{sat}\), originally a reflexive suffix, is used to derive inchoative verbs from stative adjectives. These inchoative verbs are atelic. For this reason particularly, it is important to show that true control reflexives are not atelic. They test as telic according to two of Kiyota’s (2008) tests. First, when used with the perfect, they are able to get the perfect of result or perfect of recent past reading. This was usually translated with English past perfective.
Notice that some of the sentences with perfect and control reflexive can be interpreted with a completed (perfect of result/recent past) or an ongoing (universal perfect) reading. This is contrary to Kiyota’s findings that only imperfectives and resultatives could get an ongoing reading with perfect. Thus, I have modified the interpretation of Kiyota’s test with respect to my data: telic verbs can have a perfect of result/recent past or a universal perfect reading, while atelic verbs can have a perfect of inception or a universal perfect reading.

All of the -sat inchoatives in §4.1.2.1 only have ongoing or inceptive readings, while all of the control reflexives have a completed reading for at least one of their translations. Thus, I maintain that control reflexives pattern as telic verbs.

When it comes to out of the blue perfective sentences, control reflexives also pattern as telic verbs. Of the verbs I tested, all received perfective, past tense translations into English.

(4.138) WEĆESET SEN
xʷač-o-sat =san
wake.up-C.TR\PFV-C.REFL =1SG.SBJ
‘I woke myself up.’ (12.38)

(4.139) CĘL,ESET
k*el-o-sat
təə
tey^kʷəəl
get.tipped-C.TR\PFV-REFl GNRL.DET race.canoe
‘The canoe got tipped over, the canoe tipped over.’ (5.1)
The results of the perfect test and the out of the blue translation test show that the control reflexives I tested are not activities or inchoative states. They are telic predicates and could be either accomplishments or achievements.

When it comes to the tests which distinguish achievements from accomplishments, control reflexives behave like their control transitive bases. This was not clear at first, since straight culmination cancellation was rejected or questioned by the speakers I worked with. However, recall that culmination cancellation of control transitives was not always straightforwardly accepted either. This is likely due to the culmination implicature which...
accomplishments are argued to bear (Matthewson 2004, Bar-el 2005, Bar-el et al. 2005, Kiyota 2008). Jacobs (p.c.) suggested a modification of this test, using the word $k^w$ey ‘cannot’. He suggests that with control verbs the important thing is that there was some intent to carry out the event, something non-control verbs lack. Sure enough, control reflexives are compatible with an assertion that the event could not be completed, as shown in (4.146-4.148).

(4.146) **BĒSET SEN**

$p^k^w$-o-sot=$son$

surface-C.TR\PFV-REFL=1SG.SBJ

i SQA

?i?=s-$k^w$ey

COM=NMLZ-cannot

‘I’m trying to get up on top and I can’t get out of the water.’ (35.8)

(4.147) **WEŌSET**

$x^w$o-o-sot

wake.up-C.TR\PFV-REFL

I SQA

?i?=s-$k^w$ey

COM=NMLZ-cannot

‘Katie’s trying to wake up but she can’t.’ (35.9)

(4.148) **QENESET SEN**

$k^w$on-o-sot=$son$

get.seen-C.TR\PFV-C.REFL=1SG.SBJ

i SQA

?i?=s-$k^w$ey

COM=NMLZ-cannot

‘It was trying to tip over but it wouldn’t really tip over.’ (35.11)

It is interesting that culmination cancellation is more restricted with control reflexives than it is with control transitives and passives. I hypothesise that this is because of the identity between agent and patient that a control reflexive has. The patient of a control reflexive is just as important to the situation as the patient of an unaccusative, and it is perhaps unlikely that a speaker would talk about a situation where the patient did not end up affected.

The results of the ‘almost’ test were clearer. The control reflexives which I was able to test all behave like accomplishments. They generally have the interpretation that the participant is getting ready to initiate the event.
In this, control reflexives behave like control transitives and control passives. In the next section, we see that non-control reflexives behave like their non-control transitive bases and like non-control passives.

4.3.3.2 Non-control reflexives

This section describes stems with the suffix -\textit{sat}, non-control reflexives which were argued in chapter 3 to be derived from non-control transitives, yielding the ending \textit{nayat}. Gerds (2000) and Gerdts & Hukari (2006a) have argued that the cognate ending \textit{namat} in Halkomelem, like -\textit{sat}, has both a reflexive use and an “aspectual” use. The true non-control reflexives, according to this view, are derived from non-control transitives with unaccusative verb roots. Like non-control transitives, these can have an “accidental” reading, or a “managed to/finally” reading. Since non-control reflexives, unlike non-control transitives, describe events with a single participant, they can also have a “suddenly” reading. Both readings are found in SENČOFEN too:

\begin{align*}
(4.153) \quad \text{Mācēlnonet} & \quad \text{TFE} & \quad \text{Spā,et} \\
\text{mek*əl-na-ŋat} & \quad t\text{θo} & \quad \text{spe*əŋt} \\
\text{get.injured-NC.TR\{PFV\}-NC.REFL} & \quad \text{GNRL.DET} & \quad \text{bear}
\end{align*}

\begin{quote}
‘The bear injured itself accidentally.’ (27.2)
\end{quote}

\footnote{The speakers told me that this verb is a bit odd with a human subject.}
Our words finally came through.' (17.80)

Katie woke up.' (context: phone suddenly wakes her up); 'Katie woke herself up (on her own, without an alarm)' (10V.129b; 30.18)

The "aspectual" verbs with -namat, on the other hand, are ultimately derived from unergative roots and always have a "managed to" reading. Their meaning is generally less clearly reflexive than that of the non-control reflexives with unaccusative roots.

My mother finally stood up, my mother’s managed to stand.’ (20.44)

It took me two days before I finally got home.’ (5.61a, 8.60, 21.47)

He managed to crawl.’ (28.2a, 34.5)

However, I do not think it is necessary to treat these two suffixes as distinct. The non-control transitive suffix can be used with atelic verbs (which are perhaps unergatives) on its own too. Example (4.159) is a non-control transitive of an inchoative state and example (4.160) is a passivised non-control transitive of an inchoative state.

'I finally made the baby go to sleep.' (1.50)

'(Someone) got her mad.’ (18.14b)
These non-control transitives (and passives) do not contrast with any control transitives, since the control transitive suffix does not appear with unergative verb roots. Rather, they contrast with causatives, as in (4.161).

(4.161) DÂJEKTW
\[\text{lečeq-\text{tx}^w}\]
\[\text{get.angry-CAUS[PFV]}\]
‘You made that person mad.’ (37.28)

In this section, I will treat the non-control reflexive suffix as one suffix, and I hypothesise that non-control reflexives behave like their non-control transitive bases. What I find is that non-control reflexives with unaccusative roots behave like non-control transitives with unaccusative roots: they are achievements. Non-control reflexives with unergative roots behave a bit differently from those with unaccusative roots. They behave like achievements with respect to culmination cancellation, but like accomplishments with respect to the ‘almost’ test. As pointed out in §4.3.1.2, Non-control transitives with unergative roots have not been tested with respect to Kiyota’s situation types. As also pointed out earlier, the ‘almost’ test may not target the same property as the culmination cancellation test; it may in fact target intention.

Regardless of their verb root, non-control reflexives test as telic predicates, with respect to Kiyota’s (2008) perfect test and out of the blue translation. In both, they have a past tense, completed translation.

(4.162) ÇEÇALNONET
\[k^l=\text{ke}l-\text{na-\text{qat}}\]
\[\text{PRF=hide-NC.TR[PFV]-NC.REFL}\]
‘Horace managed to hide; Horace got a chance to hide.’ (24.80, 30.2)

(4.163) LOE TE ÇE LÁU.NONET SEN
\[l^a\text{?}=\text{to}\]
\[k^l=\text{lew-na-\text{qat}=\text{son}}\]
‘I’m better.’ (8V.70c)

(4.164) ÇE NEKNONET
\[k^l=\text{naq-na-\text{qat}}\]
\[\text{PRF=fall.asleep-NC.TR[PFV]-NC.REFL}\]
‘Katie fell asleep.’ (24.78)
With respect to the culmination cancellation tests, non-control reflexives with both unaccusative and unergative roots behave like achievements. They are not able to have their culmination cancelled or continued.

Even with *SQA’sk*‘ey ‘cannot’, non-control reflexives with cancelled culminations were rejected.
One non-control reflexive with an unaccusative root looks like an accomplishment with respect to the culmination cancellation test.

With the ‘almost’ test, however, non-control reflexives derived from unergative roots behave like accomplishments.

(4.174) ĊÁLNONET TFE HOLES I, EWES SCÁCEL, k*e³l-naqat tθo halas ?i?=s?w-a-s s-k*e=k*al hide-NC.TR[PFV]-NC.REFL GNRL.DET Horace COM=NEG-3POSS RES-RES~hide ‘Horace was trying to hide, but wasn’t hidden.’ (27b.25) (SC1,WEL OL, sk*iw-al ?ai ‘he’s showing.’)

However, the comment given after (4.174), that ‘he’s showing’ tells us that Horace’s hiding event did culminate, but he just didn’t do a very good job. This sentence refers to a video where Horace hides behind a chair and thinks he is hidden, but is still visible to the audience. Thus, in terms of culmination entailments, all non-control reflexives tested behaved like achievements, in contrast with the control reflexives from §4.3.3.1.

With the ‘almost’ test, however, non-control reflexives derived from unergative roots behave like accomplishments.

(4.175) ĈELÁL I, DÁJEKNONET TE Katie čelel ?i?=te³q-naqat θo Katie almost COM=get.angry-NC.TR[PFV]-NC.REFL FEM.DET Katie ‘Katie almost got mad, Katie’s darn near getting mad.’

(4.176) ĈELÁL I DOQNONET SEN čelal ?i?=ta³k-naqat=san 1SG.SBJ almost COM=go.home-NC.TR[PFV]-NC.REFL=1SG.SBJ ‘I almost made it home.’ (still sitting here OR on the way but someone keeps stopping me from going by talking to me) (29.3)

(4.177) ĈELÁL I TLENNONET TE NE TÁN čelal ?i?=θit³n-naqat θo na ten almost COM=stand.up-NC.TR[PFV]-NC.REFL FEM.DET 1SG.POSS mother ‘My mother was almost able to stand up; my mother’s almost standing up.’ (29.23)
One non-control transitive which has a root that is a “swinger” (i.e., patterns like an unaccusative or unergative) also behaves like an accomplishment with respect to the ‘almost’ test: it has the interpretation of an event which almost began.

(4.178) ČE,LÁL I ĖÅLNONET TFE HOLES
cāl el ʔt?=k*el-na-ŋat tθo halas
almost COM=hide-NC.TR[PFV]-NC.REFL GNRL.REFL Horace
‘It's almost time for Horace to hide; Horace almost got a chance to hide.’ (he's not hidden yet) (29.30)

Non-control reflexives derived from unaccusatives were harder to test, because I found it hard to distinguish the two possible interpretations of ‘almost’ in English.

(4.179) ČE,LÁL I NU,NO,NET TFE PELEC
cāl el ʔt?=nōw-na-ŋat tθo pala
almost COM=get.in-NC.TR[PFV]-NC.REFL GNRL.REFL Philip
‘Philip just about got in.’ (something is blocking him) (30.5)

(4.180) ČE,LÁL I MĀCELNONET SEN
cāl el ʔt?=mek*et-na-ŋat=san 1SG.SBJ
almost COM=get.injured-NC.TR[PFV]-NC.REFL=1SG.SBJ
‘I almost hurt myself.’ (29.7)

In §4.3.1 I noted that the ‘almost’ test may not actually distinguish verbs which entail culmination from verbs which implicate culmination. Instead, it may target complexity (as suggested by Bar-el 2005) or intentionality. This again points to the possibility that other distinctions are relevant to SENÇOFEN predicate classification than those made by Kiyota (2008).

4.3.4 Control affects situation type

This section has shown that control affects the situation type of predicates. It has built on Kiyota's (2008) findings regarding control and non-control transitives to argue that control predicates are accomplishments regardless of their valence. Non-control predicates with unaccusative roots are achievements regardless of their valence. Some preliminary evidence from reflexives suggests that non-control predicates with unergative roots behave differently, at least with respect to the ‘almost’ test. I suggest that culmination cancellation and the ‘almost’ test actually target different properties of the semantics of a telic event.

Culmination cancellation shows us whether or not an event entails culmination, as argued by Matthewson (2004), Bar-el (2005) and Bar-el et al. (2005). The ‘almost’ test rather,
seems to target something else, perhaps complexity (Wilhelm 2003, Bar-el 2005) or intentionality. This suggests that further distinctions are relevant to SENČOTEN predicates than the ones considered by Kiyota (2008). When I consider the use of aspects with the various situation types in §5.2, I will show that imperfective aspect is also sensitive to a punctuality which is not carried by all achievements (and not necessarily evident from the verb’s morphology). Thus, it may be necessary to distinguish a class of punctual achievements (which may be transitive or intransitive) distinct from Kiyota’s achievements and accomplishments.

The results of the culmination cancellation test, and the telicity tests (perfect and out of the blue), are fairly clear. Control predicates have culmination implicatures and non-control predicates have culmination entailments, regardless of the volition or agency of their subjects. Thus, this section provides support for the view that “control” is really about situation type (“aspect”), and not agency (Watanabe 2003, Kiyota 2008, Jacobs fc). It also demonstrates that while control affects situation type, valence change does not. Thus, the control transitive and non-control transitive suffixes seem to be portmanteaux suffixes, expressing both situation type and syntactic valence.

4.4 Chapter 4 Conclusion

In this chapter I have compared and evaluated several different approaches to predicate classification in Salish languages. I began by comparing the adjective-verb distinction argued for by Montler (2003) with the individual-level vs. stage-level distinction discussed in H. Davis et al. (1997) and Kiyota (2008). As I will show in §5.2, such a distinction is relevant for aspect, as only stage-level predicates/verbs have distinct perfective and imperfective forms. It is also relevant for aktionsarten, since inchoatives derive stage-level predicates from individual-level predicates, and resultatives derive individual-level predicates from stage-level predicates. If the verb-adjective distinction is present, then inchoatives derive verbs from adjectives and resultatives derive adjectives from verbs. This adds support to my treatment of them as derivational and distinct from aspect.
The next comparison this chapter made was between Gerdts’s (1988, 1991, 2006) unaccusativity approach and Kiyota’s (2008) situation type approach to classifying intransitive verb roots (§4.2). I argued, through some application of Gerdts’s tests to SENĆOTEN, and some comparison of cognates in Halkomelem, that the two approaches target the same distinction among intransitives. Kiyota’s (2008) intransitive telic verbs (intransitive achievements) appear to be equivalent to Gerdts’s canonical unaccusatives, while his intransitive atelic verbs (activities and inchoative states) appear to be equivalent to Gerdts’s unergatives. This is summarised in the following table:

Table 4.3: Situation type compared to unaccusativity

<table>
<thead>
<tr>
<th>Situation Type</th>
<th>Telicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unaccusative</td>
<td>Achievement</td>
</tr>
<tr>
<td>Unergative</td>
<td>Activity</td>
</tr>
<tr>
<td></td>
<td>Inchoative State</td>
</tr>
</tbody>
</table>

I considered the possibility that unaccusativity could be subsumed by situation type and that it may be unnecessary to refer to the classes of unaccusative and unergative. However, I concluded that it was best to maintain the distinction, since unaccusativity and situation type operate at different levels (syntax vs. semantics; verb vs. predicate) and since there is not enough data on a wide variety of intransitive verbs to properly investigate the correspondence between the two classification schemes.

The last comparison this chapter provided, in §4.3, was between the control vs. non-control distinction (Thompson 1972) and the accomplishment-achievement distinction (Kiyota 2008). An extension of Kiyota’s (2008) tests to control and non-control pairs of reflexives and passives corroborated recent findings by Jacobs (fc) that the control vs. non-control distinction in general is one of culmination implicature vs. culmination entailment.

Throughout the chapter, I made some suggestions to amend Kiyota’s (2008) classification of situation types and make more distinctions among the predicates. One reason for this is that some atelic predicates do not appear to fit into the class of activities or the class of inchoative states. Another reason is that the ‘almost’ test and the culmination
test seem to target different properties of the predicate, and some verbs thus do not pattern perfectly with Kiyota's accomplishments or achievements. In the course of discussing my research at conferences and with other scholars, several people have questioned calling Kiyota's achievements *achievements*, since they are not punctual, and not non-causal. Thus, I will now outline a suggestion for expanding and renaming the classes discussed in this chapter.

It is becoming increasingly clear that Vendler's (1957) classes drawn up for English are not sufficient to categorise even English verbs, let alone verbs in other languages (Dowty 1979, Levin & Rappaport Hovav 1998, Tatevosov 2002, Wilhelm 2007). A typological approach to situation type (what he calls *actional type*) has been suggested by Tatevosov (2002). I find that this type of approach can be applied to SENČOTEN. Tatevosov distinguishes between situation types which are cross-linguistically relevant and those which are language-specific. Cross-linguistically relevant situation types are “clusters of actional characteristics of verbs that regularly show up across genetically and areally unrelated languages” (Tatevosov 2002: 375). In his study, he compares four unrelated languages and comes up with ten cross-linguistically relevant situation types. He emphasises that this is a first attempt only, as he has only consulted four languages. Interestingly, the SENČOTEN classes argued for by Kiyota and those noted above appear on his list. I compare his list with the SENČOTEN verb types in the following table. It is also important to note that Tatevosov defines his situation types in terms of their behaviour with both aspects.
Table 4.4: Tatevosov’s (2002: 376) actional types applied to SENCOTEN

<table>
<thead>
<tr>
<th>Situation type</th>
<th>Perfective</th>
<th>Imperfective</th>
<th>SENCOTEN verb class</th>
</tr>
</thead>
<tbody>
<tr>
<td>stative</td>
<td>(state)</td>
<td>(state)</td>
<td>none</td>
</tr>
<tr>
<td>atelic</td>
<td>(process)</td>
<td>(process)</td>
<td>none</td>
</tr>
<tr>
<td>strong telic</td>
<td>(entry into a state)</td>
<td>(process)</td>
<td>achievements</td>
</tr>
<tr>
<td>weak telic</td>
<td>(entry into a state, process)</td>
<td>(process)</td>
<td>accomplishments</td>
</tr>
<tr>
<td>punctual</td>
<td>(entry into a state)</td>
<td>n.a.</td>
<td>punctual accomplishments (cannot have the event cancellation reading with ‘almost’; cannot take imperfective aspect)</td>
</tr>
<tr>
<td>strong inceptive-stative</td>
<td>(entry into a state)</td>
<td>(state)</td>
<td>positionals</td>
</tr>
<tr>
<td>weak inceptive-stative</td>
<td>(entry into a state, state)</td>
<td>(state)</td>
<td>inchoative states (emotional states)</td>
</tr>
<tr>
<td>strong ingressive-atelic</td>
<td>(entry into a process)</td>
<td>(process)</td>
<td>none</td>
</tr>
<tr>
<td>weak ingressive-atelic</td>
<td>(entry into a process, process)</td>
<td>(process)</td>
<td>activities</td>
</tr>
<tr>
<td>multiplicative</td>
<td>(multiplicative process, entry into a state)</td>
<td>(multiplicative process)</td>
<td>none</td>
</tr>
</tbody>
</table>

Some of the SENCOTEN event types are not on this list. That is not a problem for Tatevosov’s approach, because under the approach languages have their own language-specific actional types that are not cross-linguistically relevant. Also, as stated above, this list was only created on the basis of four languages.

I have not included Kiyota’s (2008) homogeneous states in the table. I have been treating them as adjectives, and thus not subject to the same kind of situation type analysis. However, they do occur predicatively, as do nouns. We could perhaps put them in the top line “stative”, but they behave slightly differently from the characterisation of stative given in the table: they do not distinguish aspects. I also suggested that agentivity may be relevant, if we wish to include the availability as a command (“imperative”) as a test between inchoative states and activities, as Kiyota (2008) does. This would then distinguish between two types of weak ingressive-atelic (agentive activities and bodily processes). However, if we are able to come up with some other test for activities and
inchoative states, preferably one which targets stativity, then we would not need to make this distinction.

I have interpreted Tatevosov's strong and weak atelics as targetting accomplishments which must culminate ("achievements") and accomplishments which do not need to culminate ("accomplishments"). I have suggested that there are punctual situations in SENCOTEN, and that these are those telic verbs which do not take the 'event cancellation' reading of 'almost'. Of the verbs discussed in §4.3, all those which definitely could not take the 'event-cancellation' of 'almost' were also those which entailed culmination. However, the opposite is not true. Some verbs which entailed culmination could take the 'event-cancellation' reading of 'almost'. This makes sense: punctual telic verbs must be strongly telic, as it is not possible for them to have begun but not yet culminated. On the other hand, a strongly telic verb need not be punctual.

Since this thesis is not couched in a formal framework, I will not attempt a formal analysis of all the distinctions between these classes. However, this would be a very interesting avenue for further research, especially given the current interest in non-culminating accomplishments (Koenig & Muansuwan 2000, Soh & Kuo 2005, Koenig & Chief 2008, Tatevosov 2008) and the ongoing development of theories of telicity/quantization (Hay, Kennedy & Levin 1999; Beavers 2006; Filip 2008; Kennedy & Levin 2008; Rappaport Hovav 2008).

Chapter 5 will look at the use and distribution of grammatical aspect in SENCOTEN, and make reference to the predicate classes outlined in this chapter. I will continue to use Kiyota's (2008) terms to refer to the various situation types, but it is important to remember that Kiyota's achievements are not all punctual (though they are all strongly telic) and Kiyota's accomplishments are all non-culminating accomplishments (i.e., they are weakly telic, or quasi-telic to use Kiyota's term). I will show that there is some evidence from the behaviour of grammatical aspect to distinguish inchoative states and positional states, and to distinguish punctual predicates from other achievements.
The arguments made in this chapter regarding the contribution of unaccusativity and derivational morphology to situation type will be largely adopted in chapter 5. Most scholars working on situation type agree that at least some situation type distinctions must be made at a higher level than the verb (the VP or clause). I have not been able to do a systematic study of the contribution of elements outside of the verb to situation type in SENCOTEN, so I am following Kiyota’s (2008: 227) approach in referring to the situation type of predicates denoted by particular types of verbs.

It seems that the verb does provide a high contribution to situation type, as a consequence of all of the information about arguments that is indicated through verbal morphology: pronominal object agreement, valence, and ‘control’. Notice in particular that telicity is distinguished through argument structure and valence morphology: plain unaccusatives and non-control transitives are strongly telic (achievements), control transitives are weakly telic (accomplishments), and unergatives (and possibly middles) are atelic (activities and inchoative states). Note that the distinctions among the atelics are not related to argument structure, but rather to their use with grammatical aspect and with imperatives. Similarly, a potential distinction within the strongly telic achievements is one of durativity (§5.2.2); this also is evident through grammatical aspect use. These patterns are predicted by Wilhelm’s (2007) claim that telicity operates at the VP-level and is relevant to argument structure, while durativity operates at a higher clausal level and is relevant to aspect.
Chapter 5  Grammatical aspect

The relationship between grammatical aspect and situation type remains one of the major areas of discussion in the literature on aspect. There is good cause for this: on the one hand, grammatical aspect and situation type clearly interact. Some of the diagnostics for situation type involve the use of predicates with different aspects. It has been observed for English that stative and punctual predicates cannot take progressive aspect without some kind of shift in meaning (§2.1; Vendler 1957, Dowty 1979; Comrie 1976; Smith 1997; Rothstein 2004). Another way in which situation type and aspect are connected is in the parallel semantics and function of telicity and perfectivity (§2.3). Telic verbs are found more frequently in the perfective aspect than the imperfective aspect in both learner and adult/L1 speech (Shirai & Anderson 1995, Bardovi-Harlig 2000, Wagner 2009). In languages with neutral aspects, telic verbs tend to be given perfective interpretations and atelic verbs imperfective interpretations (Smith 1997, Bohnemeyer & Swift 2003). Telicity and perfectivity both target the endpoints of events. Since imperfectives represent internal portions of events (not including their endpoints), some authors have claimed that imperfective aspect actually shifts the situation type properties of accomplishments and achievements, rendering them atelic (de Swart 1998).

On the other hand, there is good evidence that grammatical aspect and situation type are independent categories, since one situation type can occur in either grammatical aspect. It is possible to have telic imperfectives and atelic perfectives. This point was made with respect to French by Garey (1957) when he introduced the terms telic and atelic, and has been stressed for other languages in subsequent works (Comrie 1976, Smith 1997, Bertinetto 2001). This evidence leads to the “viewpoint” analysis of aspect, characterised by Smith’s (1997) work, where properties like telicity are inherent features of situations, and grammatical aspects provide different perspectives on these situations.

SENCOTEN is a useful language to consider in understanding further the relationship between grammatical aspect and situation type. There is a productive
perfective-imperfective contrast (chapter 3, §5.1), while situation type can also be largely predicted on the basis of overt derivational morphology (chapter 4). In chapter 3, I showed that aspect is orthogonal to aktionsart and valence-changing morphology in SENCOTEN. The correlation between event-structure changing morphology (aktionsarten and control) and situation type was addressed in chapter 4. In this chapter I aim to show that in SENCOTEN 1) there is a perfective-imperfective contrast similar to that of other languages, and 2) there is a correlation between aspect and situation type.

The only previous work on the semantics of Northern Straits aspect (as opposed to its form) is that of Turner (2007) and Kiyota (2008). Kiyota gives some good evidence for a semantic distinction between perfective and imperfective aspect in the context of punctual clause modification and provides formal semantic definitions of perfective and imperfective in SENCOTEN, but does not provide a long or thorough description of the contexts in which the two aspects are used, since this is not the focus of his thesis. §5.1 expands on Kiyota’s (2008) description by providing examples of the different contexts in which perfective and imperfective aspects can be used. I confirm Kiyota’s (2008) analysis of the distinction as one of perfective-imperfective and not of neutral-imperfective, by extending Bar-el’s (2005) arguments for the Skwxwú7mesh perfective, which also has no overt formal realisation, to SENCOTEN. In §5.2 I address the distribution of grammatical aspect with respect to different predicate types, focussing on the individual-level vs. stage-level distinction (or noun/adjetive vs. verb distinction), on punctual predicates, and on achievements, which were previously claimed to be totally incompatible with imperfective aspect (Turner 2007, Kiyota 2008). §5.3 confirms the patterns discussed in §5.2 regarding situation type: I argue based on evidence from texts and video descriptions that there is a correlation between perfectivity and telicity.

**5.1 Perfective-imperfective distinction**

This section provides support for the argument that SENCOTEN has a perfective-imperfective distinction (Kiyota 2008). In §5.2, I will argue that this distinction
is obligatory and that aspect is an inflectional feature on SENCOTEN verbs. Every
(stage-level) verb is inflected for aspect, and is either perfective (5.1) or imperfective (5.2).

(5.1) YÀ SEN   DOQ
ye?=son   lak*
go=1SG.SBJ   go.home[PFV]
‘I went home.’  (CT fieldwork 2006)

(5.2) ØL I, DODEQ SEN
k*==?i?-la~ta=k*=san
PRF=CONTIN-IPFV~go.home=1SG.SBJ
‘I’m on my way home.’  (CT fieldwork 2006)

I will first describe imperfective (§5.1.1) and then perfective (§5.1.2). In each subsection, I
will start by considering Kiyota’s (2008) formal semantic definition of the aspect and
providing further evidence in support of this definition. I will then show how the aspect fits
in with typological definitions. In §5.1.1, particular attention will be given to showing that
SENCOTEN imperfective is used to describe habitual events. In §5.1.2, particular attention
will be given to evidence that shows SENCOTEN perfective is not a neutral viewpoint.

5.1.1 Imperfective

Following Bar-el’s (2005) treatment of Skwxwú7mesh, Kiyota (2008) defines the
SENCOTEN imperfective as representing the reference time within the event time (Klein
1994). This definition of imperfective is what Kiyota calls ‘standard’; it captures the use of
imperfective aspect to describe the internal stages of an event and not its beginning and
endpoint. This is illustrated by the example below, where imperfective and not perfective
can be used:

(5.3) Context: The consultant’s house had some problem and she had to fix it by herself.
It took three days from Tuesday to Thursday.
Question: What did you do on Wednesday?

?e<?o(express)=lo?=son  ?o  k*=s  no  ?e?=ng
work<IPFV>=PST=1SG.SBJ  OBL  REM.DET  1SG.POSS  house

?e  tso  slix*w
OBL  GNRL.DET  Wednesday
‘I was working on my house on Wednesday.’  (Kiyota 2008: 93)

Again following Bar-el (2005), Kiyota uses Kratzer’s (1998, 2004) formal definition for the
SENCOTEN imperfective:
Boneh & Doron (2009) provide a nice prose description of Kratzer’s formula: imperfective aspect is “a mapping from properties Q of an event e (either a dynamic event or a state) to those intervals \( i \) (reference time) which stand in particular inclusion relations to the event time \( \tau(e) \), the time of e” (p. 339). So any interval time serving as the reference time must be included in the running time of the event in order for the imperfective aspect to be used.

This definition neatly captures the progressive use of the SENČOTEN imperfective. In §2.1.2, I discussed the distinction between imperfective and progressive. Two main distinctions are drawn: imperfectives tend to be used also in describing situations which happen habitually, and imperfectives tend to be applied to stative situations (Dahl 1985). I will show below that both of these characteristics are true of the SENČOTEN imperfective. Lastly, SENČOTEN imperfective is used to describe iterative occurrences of a situation. This use of imperfective is also found cross-linguistically (Bybee, Perkins & Pagliuca 1994: 126-127). Thus, the SENČOTEN imperfective has three uses: progressive, habitual, and iterative. I will consider each of these in turn here. In §5.2, I show that SENČOTEN imperfective can apply to stative situations.

Kiyota (2008) shows some of the progressive uses of imperfective. He demonstrates the progressive use in (5.3) above, which provides as the reference time an interval (Wednesday) within the running time of the event (Tuesday-Thursday). He also considers the imperfective modified by punctual clauses. In these contexts, the punctual clause provides the reference time, and again it must be included within the event time of the situation denoted by a predicate in the imperfective. The following is an example provided by one of the speakers during my fieldwork:

\[
\text{(5.4)} \quad \text{I, TÁTI, } \text{ CONTIN-IPFV~canoe.race} \quad \text{I, KELKELILETEN SEN} \\
\text{?i?-te-tay} \quad \text{?i?=qal-qal-il-at-aŋ=sen} \\
\text{COM=go.bad-C.TR[PFV]-PASS=1SG.SBJ} \\
\text{‘He spoiled me when I was pulling [in the canoe race].’ (5.13)}
\]
The speaker is describing a situation when he was in a canoe race (tetay ‘canoe-racing’) and one of the other people in the boat caused him to lose his timing. There are also several other examples from elicitation. Here are two:

(5.5) **XEL, TENE LO, TFE NE SNÁ**

\[ \text{get.written-C.TR} \text{IPFV-PASS=PST GNRL.DET 1SG.POSS name} \]

I, TEC TFE SXEL,ÁL,S
\[ ?i?=tak\* t\ø sxelels \]
COM=break[PFW] GNRL.DET pencil
‘My name was getting written down when the pencil broke.’ (2.19)

(5.6) **YÁ, SEN I, TOTEN E TFE SNÁNET**

\[ \text{go=1SG.SBJ COM=IPFV=ascend OBL GNRL.DET mountain} \]

I, CÉ LEMEW
\[ ?i?=k*i=iomax* \]
COM=PRF=rain[PFW]
‘I was climbing the mountain when it started to rain.’ (1.28)

In these examples, the progressive use of imperfective indicates that the punctual situation (in the second clause) took place during the time that the first situation was running (like the English translation). Compare this with the perfective (§5.1.2). This is also an example of the backgrounding use of imperfectives in discourse (§5.3.1).

SENCOTEN imperfective is also used to describe events which are ongoing at the time of speech. One of Dahl’s (1985: 92) sentence frames for progressive use was employed in my fieldwork to test the use of imperfective. I used the frame ‘Don’t disturb Janet/Katie. She X.’ The idea is to see what form X takes. In order to get the desired meaning that she’s engaged in some action or has some ongoing emotional state, X is imperfective every time, as in (5.7) and (5.8).

(5.7) **EWES U, SETKT TE Janet**

\[ ?a=sa\, ?u?=satch-t \theta\ø Janet \]
NEG=NMLZ CONTR=get.disturbed\IPFV-C.TR FEM.DET Janet

\[ \text{XEL,TES TFE PUČS} \]

\[ \text{get.written\IPFV-C.TR-3ERG PROX.DEM morning} \]
‘Don’t disturb Janet. She’s writing her book.’ (16.12a)
When the perfective aspect is used, the meaning no longer refers to an event ongoing at the time of speech, but rather to a predicted future event:

The use of progressive to refer to events ongoing at the time of speech is found in texts too. In (5.10), from Montler’s (1986) *Raven Abandons His Son*, Raven is talking to his son, telling him that there is a seagull eating at that moment somewhere in the distance.

In contrast, perfective aspect is not used like a progressive, and rarely to describe something as it’s occurring. Kiyota (2008) claims that perfective activities and inchoative states are given a present tense interpretation out-of-context, while telic situations (accomplishments and achievements) are not. However, in context, I have found that activities and inchoative states are in the imperfective if they are being used to describe ongoing situations. The following is from one of the short (joking) conversations between the two speakers I worked with (here A and B).

---

60 This looks like it contains the Halkomelem auxiliary niʔ, a proximal deictic auxiliary (Suttles 2004). Most speakers of SENĆOTEN also speak the Island dialect of Halkomelem (Hul’q’umi’num’), and they occasionally incorporate Hul’q’umi’num’ words into their SENĆOTEN speech.
(5.11) A: JÁN SEN U, XIXEXO,
čen=san ?ow=xí-xeñə?
really=1SG.SBJ CONTR=IPFV--embarrassed
E TTen,
?ə tə-ə s-le-la-sat
OBL GNRL.DET-2POSS NMLZ-IPFV-get.done-C.TR;REFL
'I'm really embarrassed by what you're doing.' [my translation]

B: WÁ,KES SEN OL,
we=?qos=san=?al
yawn<IPFV>=1SG.SBJ=LIM
'I'm just yawning!' [my translation]

All three verbs, an inchoative state 'be embarrassed', a control reflexive (weak telic accomplishment) 'doing' in a subordinate clause, and an unergative activity 'yawn', are in the imperfective aspect here.

In chapter 2, I mentioned that the imperfective aspect in Northern Straits has been called by various names in the literature: in addition to imperfective, we see actual, continuative, and progressive. However, we see that in SENCOTEN, at least, the imperfective is not just a progressive. First it is used with stative situations which are stage-level: inchoative states and positional states. This is shown in §5.2. Second, it is used to describe habitual situations:

(5.12) NIL U ĶE,OW,ES TFE PETE
nit ?u?=č<o?>aw-əs tə=pato
3PRED CONTR=use<IPFV>-EFFORT GNRL.DET butter
E TFE SKÅUF
?ə tə səwəθ
OBL GNRL.DET potato
'We cook our potatoes with butter.' (12.20a)

(5.13) DEDI,LEM LE TFE Janet
lo-tloń=lo? ə=Janet
IPFV~sing=AST FEM.DET Janet
I ELOLEŁ E TFE ŠTEMČES
?ɬ=ʔəloɬə ?ə tə=šamk=as
COM=go.aboard\IPFV OBL GNRL.DET car
'Janet used to sing in the car.' (12.22)

(5.14) NIL TFE SWIKE, NE ŠIEŁ XEL,ÁL,S
nit tə swaqəʔ na šiaɬ xal-els
3PRED GNRL.DET man 1SG.POSS older.sibling get.written-ANTIP\IPFV
'My older brother is a writer.' (20.9)
Bar-el (2005) also uses habituality as a criterion for arguing that the aspectual clitic \textit{wa7} in Skwxwú7mesh is imperfective. In fact, the SENĆOTEN imperfective appears to be very similar in its distribution and semantics with the Skwxwú7mesh imperfective \textit{wa7}, and not with the Skwxwú7mesh progressive reduplication.

Bybee et al. (1994: 140-144), discuss how progressive grams can develop into present tense grams or imperfective grams. The SENĆOTEN non-concatenative stem augmentation described in this section may have evolved from a progressive, which would explain its formal similarity with the Skwxwú7mesh progressive reduplication just mentioned. We know that SENĆOTEN imperfective is not a present tense because it can be used with the overt past tense, as in (5.13) and (5.15) above, and with the overt future tense, as in (5.16).

Another gram discussed by Bybee et al. (1994) in relation to imperfectivity is the \textit{iterative}. This describes a situation which occurs multiple times on one occasion, and can often involve multiple participants (pp. 160-161). This gram type is also expressed by the SENĆOTEN imperfective, as in (5.14).

More examples of iterative imperfectives are given in §5.2.

This section has discussed the semantics and the use of the formally complex member of the SENĆOTEN grammatical aspect pair. I have furthered Kiyota's (2008) arguments that it is an imperfective aspect by providing examples of its typical imperfective uses: progressive, habitual, and iterative. The next section addresses verbs which are not in the imperfective aspect, arguing that they are perfective.
5.1.2 Perfective

It is relatively straightforward to show that there is an imperfective aspect in SENÇOTEN. Most imperfective verbs are clearly morphologically complex, with reduplicated, metathesised, infixed, or suffixed stems. Imperfectives are used in specifically imperfective contexts, as shown in §5.1.1. It is more difficult to argue for the SENÇOTEN perfective. First, perfective verbs have a plain verb stem, and in relation to imperfective appear to have no overt expression. Traditionally, the imperfectives have been seen as derived from the perfective, which is a plain verb stem (see §3.1 and phonological analyses by Montler 1986, 1989; Stonham 1994, Kurisu 2002). Compare the very simple CaC perfective in (5.18) with the imperfective in (5.19), which clearly has more phonological material.

(5.18) 0EL, TFE NE TI
k=*el tθə nə ti
get.spilled[PFV] GNRL.DET 1SG.POSS tea
‘My tea got spilled.’ (6.22)

(5.19) SQA TFE STIHÁLE
sk*ey tθə stihela
bad GNRL.DET teapot
YOF OL U, ÇOL,EL OL
yaθ=ʔal ?ɔw=k*ale=ʔal
always=LIM CONTR=get.spilled\PFV=LIM
‘That’s a bad teapot because the tea spills.’ (24.27)

Also, Kiyota (2008) shows that certain event types can get an English progressive translation when they are in the perfective. This can yield ambiguity in out of context translations.

(5.20) DILEM TÉ Janet
tiləm θə Janet
sing[PFV] FEM.DET Janet
‘Janet sang; Janet is going to sing; Janet is singing.’ (18.3, 45.18)

Lastly, some predicates do not entail culmination in the perfective (namely, control transitives and their derivatives; see §2.1.2, §4.3):
This looks similar to a property associated with progressives in English, called The Imperfective Paradox (Dowty 1977), where a progressive statement of an accomplishment does not entail its non-progressive: *I was waking Jack up* does not entail *I woke Jack up*. Given these properties of SENCOTEN perfunctives, it looks like the aspect may not be a perfective, but actually a neutral aspect, which can have perfective or imperfective-like readings, depending on event type and context. Neutral aspect has been proposed for other languages, such as Inuktitut (Bohnemeyer & Swift 2003) and Mandarin (Smith & Erbaugh 2005).

However, Bar-el (2005) gives compelling arguments against analysing the Skwxwu7mesh plain verb forms as neutrals, and her arguments can be extended to SENCOTEN plain verbs as well. In particular, perfunctives do not provide access to the event’s internal stages like imperfectives do. This is shown in Kiyota’s (2008) punctual clause modification tests.

In (5.22), the perfective verb *lilam* ‘sing’ can only describe a situation where Jack arrived and then I started singing, and not one where I was already singing when Jack got there. In this respect, SENCOTEN perfunctives look similar to English perfunctives (*I sang when Jack arrived*). They are different from Smith’s characterisation of Mandarin neutral verbs, which can have either a closed or open interpretation in a similar sentence frame:

Mandarin:

(5.23) Zhangsan dao jia de shihou Mali xie gongzuo baogao
Zhangsan arrive home DE time Mali write work report
‘When Zhangsan arrived at home, Mali began to write the work report.’
‘When Zhangsan arrived home, Mali was writing the work report.’
(Smith 1997: 278)
Therefore, SENCOTEN perfectives do not behave like they have neutral aspect.

The interpretation of stage-level states also mirrors that of some languages with overt perfectives. In SENCOTEN, stage-level states (i.e., inchoative states) can get an inceptive reading in the perfective, but only a stative reading in the imperfective.

(5.24) ɪtɪkʰAES=sən
get.tired[PFO]=1SG.SBJ
'Am/got tired.' (Kiyota 2008: 51)

(5.25) ŁICUS SEN LO  E  ĆLIÁ  ĆELAKEŁ
ţiwiş=sən=lo?
get.tired[PFV]=1SG.SBJ=PST OBL REM.DEM yesterday
'I was tired yesterday. /* I got tired yesterday.' (12.4)

This pattern is found also in some Romance languages, such as Italian (5.26), and in Greek (5.27), where stage-level states can also have either inceptive or stative readings in the perfective.

Italian:
(5.26) a. La sua squadra preferita aveva perso. Gianni ne ebbe un forte mal di pancia, che gli durò per il resto del pomeriggio
'His preferred team had lost. Because of this, G. had (= got) a belly ache, that lasted for the rest of the afternoon'

b. Non fu possibile parlare con lui; Gianni ebbe mal di pancia per tutto il pomeriggio
'Speaking with him proved impossible; G. had (= suffered from) a belly ache for the whole afternoon' (Bertinetto 2001: 12)

Greek:
(5.27) a. ebasilusa déka étẹ
'I reigned for ten years.'

b. ebasilusa
'I became king, ascended the throne.' (Comrie 1976: 19)

Even in Mandarin, which has an overt perfective, some states also have an inceptive reading.

Mandarin:
(5.28) Mali bing-le
Mali sick-PRF
'Mali got sick.' (Smith 1997: 70)

It seems that SENCOTEN perfective is more like Mandarin perfective than it is like Mandarin neutral aspect.
It remains to explain the facts cited above which point to a neutral aspect in SENCOTEN. First, there is the fact that telic events are interpreted with past perfective tense in out of the blue contexts, and atelic events with present progressive tense (Kiyota 2008). Matthewson (2006: 676) argues that this variability in perfective verbs results only from temporal variability. English lacks a perfective present tense, so when activities are interpreted with the present tense, they get a progressive translation. This still does not explain the difference in the way telic events are interpreted vs. atelic events. However, this may be explained if we look at studies in the field of language acquisition research. These have shown that learners and native speakers use perfective aspect and past tense with telic predicates, and imperfective aspect and present tense with atelic predicates, more frequently than the other way around (Shirai & Andersen 1994, 1995; Wagner 2009). In translating a present perfective into English, the SENCOTEN speakers must choose between changing the aspect to progressive or specifying the tense as other than present (past or future). Their choices may reflect their intuitions about the SENCOTEN verbs or about the English equivalents; either way they choose the prototypical pattern: telic past perfective and atelic present progressive.61

Another fact about SENCOTEN which may suggest that it has neutral aspect rather than perfective is the lack of a culmination entailment for accomplishments. However, as Bar-el (2005) and H. Davis, Louie, Matthewson, Paul, Peterson & Silva (f.e.) argue for Skwxwú7mesh and Stát’imcets, there are several reasons that this does not provide good evidence for neutral aspect. First, only accomplishments and not achievements lack culmination entailments; thus it is not the aspect as a whole, but one particular situation type which has this property. Koenig & Chief (2008) make the same argument for Mandarin. Second, accomplishments still have a strong implicature of culmination in the perfective, which they lack in the imperfective. In addition to these arguments, recent research has shown that several other languages contain a sub-class of telic verbs which do

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61 This questions the validity of the ‘out-of-the-blue’ translation test, since it may reflect the semantics of English predicates, rather than SENCOTEN predicates.
not entail culmination: Hindi, Tamil, Thai, Mandarin (Koenig & Chief 2008, Tatevosov 2008). It is also worth noting that in Sliammon, non-control transitives in both perfective and imperfective aspect entail that some result obtains, while control transitives do not entail this in either aspect (Watanabe 2003: 208). I have not yet tested if this is the case for SENCOTEN, but if it is, it provides further evidence that the culminating vs. non-culminating distinction itself is not a grammatical aspect distinction.

Kiyota (2008) suggests that the SENCOTEN perfective be given a “non-standard” definition, because it can be used to describe only the inception of an activity or state. He thus modifies Kratzer’s (1998) formula, which states that perfective places the event time within the reference time, and instead gives the following:

\[
[\text{[Perfective]}] = \lambda Q \cdot \forall i . \exists e . \exists e' [e' \subseteq e \land \tau(e) \subset i \land Q(e)]
\]

(Kiyota 2008: 92; based on Kratzer 1998, Bar-el 2005)

This definition states that perfective aspect is a mapping from properties Q of an event e to intervals i (reference time) such that an atomic sub-part of e is included in i. Kiyota (2008: 92) explains that the atomic part-of relation ensures that at least one whole sub-event of the entire event is included in the reference time. For activities and inchoative states, this is the initial BECOME subevent, and thus the perfective represents the inception of an activity; for accomplishments and achievements this is the final BECOME subevent, and thus the perfective represents the completion of an accomplishment or an achievement. Actually, this characterisation is not quite right for accomplishments or achievements. Accomplishments do not need to culminate. Kiyota’s definition could still account for this, since maybe the perfective only needs to place the initial DO subevent of an accomplishment in the reference time. Achievements only consist of a BECOME event in Kiyota’s model, so actually the whole of an achievement event is inside the reference time of a perfective. This is still consistent with Kiyota’s definition, since the sub-event need not be a proper sub-part of the whole event; it can be equal to the whole event.

Where I think Kiyota (2008) is not quite right is in characterising this as a “non-standard” perfective. As we have seen above and in §2.1.2, the inceptive use of
activities and inchoative states and the phenomenon of non-culminating accomplishments are both found in several unrelated languages. It is also interesting to note that, while Kratzer (1998) calls her definition “in the spirit of Klein”, Klein (1994) actually did not define the perfective as placing the event time within the reference time. He defined perfective aspect as involving an AT relation: it places TT AT TSit (p. 108). This means that the topic time is interpreted as including all or part of the situation time. He suggests that this varies among languages, and varies among situation types within a language. Kiyota’s (2008) definition thus appears to capture the SENČOTEN facts, but these facts are not unusual at all; they are paralleled in other languages, and even fit with Klein’s (1994) original intuitions regarding perfectivity. In addition, Bar-el (2005) shows that English activities behave like Skwxwú7mesh (and SENČOTEN) activities with respect to punctual clause modification, so it is not clear that English and SENČOTEN need a different definition for perfective.

In summary, it appears that there are several reasons to consider the SENČOTEN plain verbs as bearing perfective aspect, and any apparent arguments for a neutral viewpoint can be explained by other means. SENČOTEN perfectives cannot occur in explicitly imperfective contexts, they produce culmination entailment with strongly telic predicates (achievements), and they behave similarly to both overt and non-overt perfectives in other languages. In the next section, I will show a particular context where the SENČOTEN aspect distinction again looks like that of other languages. This is in positive and negative commands.

5.1.3 Aspect in commands

One area in which SENČOTEN perfective and imperfective aspect are used distinctively is in commands, where perfective aspect is used in positive commands and imperfective aspect is used in negative commands. This distinction holds regardless of event type. It has not been discussed in any previous work on Northern Straits, but Tom Hukari and Donna Gerdts (p.c.) report that imperfective aspect tends to be used in negative commands in
Lushootseed and Halkomelem as well, although in Halkomelem this depends on verb class.

In addition, a similar pattern is found in the Interior Salish languages (N. Mattina 1999) and outside the Salish family in some Slavic languages and at least one other language, Kerek (Kučera 1985, Volodin 2001, Timberlake 2004). These similarities are discussed at the end of §5.1. I will discuss positive commands in §5.1.1 and negative commands in §5.1.2.

5.1.3.1 Positive commands

SENCOTEN has no grammatical imperative mood, and positive commands can have the same form as declarative sentences with third person subjects, as in (5.29).

(5.29) KĂČEN
    qekʷ-əŋ
    rest-MID[PFV]
    'Rest; He took a rest.' (1IV.151b, 19.36)

Montler (1986: 203) states that commands with this syntactic structure are very weak, and have the force of requests.

Besides the simple sentence structure illustrated in (5.93), commands can also have a second person subject clitic, as in (5.30), in which case they are still ambiguous between command and declarative.

(5.30) LETET SW TTE CLAS ET Katie
    laɬ̕ʷ-ət=sxʷ
    tθa
    klss ?ơ=ƛ
    Katie
    fill.up[PFV]=2SBJ GNRL.DET glass OBL=PN.DET Katie
    'Fill up Katie's glass.' (V2.159, 11IV.159)

According to Montler (1986: 203), the strongest form of command uses the specific 'command' clitic =cə, as in (5.31).

(5.31) kʷən-ət-əlxʷ=cdc
    see-C.TR[PFV]-1PL.OBJ=CMD
    'Look at us!' (Montler 1986: 203)

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62 Jelineck (1987: 2) notes that the most polite way to give commands is indirect, using a construction meaning 'It is good that...'. She cites Boas (1911: 44) as commenting on this as a general feature of languages of the North Pacific Coast. These indirect commands are rare or nonexistent in my fieldwork recordings, and I will not consider them here.
I have not recorded any examples with this clitic, but I have recorded one with a similar-looking clitic, =čiţ. This is listed Montler (1986:198) as 'immediate past', but here it is used as a command.

(5.32) WÝÁM, ÇEŁ uncle, WÝÁM, ÇEŁ
x^oyeih=col uncle, x^oyem=čiţ
tell.story[PFV]=RECENT.PST uncle tell.story[PFV]=RECENT.PST
'Tell us a story, uncle, tell us a story.' (11V.0p)

In Russian, the past tense can also be used as a command in some verbs meaning 'go' (Forbes 1964: 281). However, I have not yet found any other SENCOTEN examples like (5.32). A proper investigation of tense in SENCOTEN, which has not yet been undertaken, would need to explore this further.

Notice that all of these commands have verbs in the perfective aspect. This is the general situation for SENCOTEN positive commands. There are some cases, however, where imperfective is used. In these cases, it seems to have a habitual function, where the speaker is commanding the addressee to carry out an event regularly. Compare the perfective command in (5.33) with the imperfective command in (5.34).

(5.33) ĆOČES TTEN, SKÁŁ,
čak^as tθaŋ sq^el
use[PFV] GNRL.DET;2POSS language
'Use your language.' (5.0d)

(5.34) ĆE,0,WES TTEN, SKÁŁ,
č<õa=awas tθaŋ sq^el
use<IPFV> GNRL.DET;2POSS language
'Keep using your language; Use your language.' (5.0e, 9V.2a)

Another example of an imperfective positive command is (5.99), which again has a habitual function.

(5.35) ENÁ SW ĆEČLILET
?one=sx w k=s~k^i<|=?i>1-ot
come=2SBJ IPFV~appear<IPFV>-C.TR
'Come and see him/her now and then.' (11V.0b, 15.16)

This habitual reading is found with all of the examples of imperfective positive commands in my fieldwork data.

The use of perfective with positive commands transcends situation type. Here are examples of an inchoative state, an activity, and an accomplishment in commands.
Achievements don’t tend to be used in positive commands, since they usually involve subjects with restricted or no volition, or are used to describe unexpected completion of an event. They are used in negative commands, and will be discussed in the next section.

In this section, I have shown that positive commands in SENĆOTEN tend to be in the perfective aspect, regardless of situation type. When they are imperfective, they refer to habitual events. In the next section, I turn to negative commands.

5.1.3.2 Negative commands

Like positive commands, negative commands in SENĆOTEN have no dedicated imperative morphology. They are formed with the negative auxiliary followed by a nominalised clause. Most of these clauses are introduced with the contrastive clitic =?u?.

Notice that (5.39) is in the imperfective aspect. In general, negative commands in SENĆOTEN are imperfective.

As with perfective aspect in positive commands, the pattern of imperfective aspect in negative commands holds for inchoative states (5.40, compare with 5.36), activities (5.41), and accomplishments (5.42, compare with 5.38).
So the general pattern is that negative commands take verbs in the imperfective aspect.

There are some exceptions to this, as in (5.43) through (5.45), which are negative commands with perfective aspect.

These examples all have something in common. They were used in context by one of the speakers and each gives a warning; rather than instructing the addressee to not do something, the command is instructing the addressee to not let something happen.

The Interior Salish languages also distinguish between positive and negative commands. N. Mattina (1999) discusses commands in Moses-Columbian, and shows that, while positive commands make use of a special imperative clitic, negative commands lack this clitic and use the ‘unrealized’ form of the verb. The use of an unrealized form in Moses-Columbian bears some similarity to the use of imperfective morphology in SENĆOTEN. Both are used outside of commands to describe events which do not necessarily culminate, or for which an endpoint is not visible.

63 The word ‘Indian’ was used by the SENĆOTEN speakers to translate this word, however its use by non-First Nations is considered offensive in Canadian society. Please note I intend no offence in including it here, but wish to be true to the speaker’s translation.
Interestingly, the pattern of grammatical aspect found in SENČOTEN commands is very similar to the pattern found for imperatives in northern Slavic languages. According to Timberlake (2004: 374-375), Russian negative imperatives normally take imperfectives, but can take perfectives to “give a warning against an event the speaker considers imminent”. Russian positive imperatives generally take perfectives. One exception to this generalisation is the same as the SENČOTEN exception: “to express the usual senses of the imperfective, for example, a generalized action or habit” (p. 374). There are a few other exceptions to this generalisation not found in SENČOTEN so far: they are used for invitations, to grant permission, or to insist that the addressee perform some action which the speaker is worried might not be performed. Perhaps SENČOTEN does not need to use a special construction (i.e., imperfective positive command) to distinguish these three uses from regular positive commands because the language already has three levels of strength available for positive commands: the plain verb, the verb with 2\textsuperscript{nd} person subject agreement, and the verb with the ‘command’ clitic. Alternatively, it may be that these exceptions can occur in SENČOTEN, but they are just not found among my fieldwork recordings.

Kučera (1985) discusses negative imperatives in the northern Slavic languages, using Czech examples. He observes that some verbs more naturally take imperfective aspect in negative imperatives, but some verbs more naturally take perfective. The verbs that more naturally take perfective are all achievements. He suggests this is due to both a lack of volitionality on the part of the addressee, and to a short duration of the event. Again, the idea of non-volitionality parallels the SENČOTEN pattern as observed so far. The negative commands in the imperfective aspect are not all achievements according to Kiyota’s (2008) tests, nor are they punctual, but they do involve a lack of volitionality.

In some other languages there is also a correlation between aspect and polarity in commands. In most of the southern Slavic languages, negative imperatives do not normally take perfective aspect at all (Kučera 1985: 118). The Chukotko-Kamchatkan language Kerek is reported to have the same pattern: positive imperatives can take either aspect, but
negative imperatives can only take imperfective (Volodin 2001: 153, cited in van der Auwera et al. 2008).

Thus, the use of aspect in commands appears to be another way in which the SENĆOŦEN perfective-imperfective distinction resembles that of other languages. This adds to the evidence from default translations, punctual clause modification, presently occurring situations, statives, and non-culminating accomplishments. In all of these areas, SENĆOŦEN perfectives and imperfectives appear to be used like perfectives and imperfectives in other languages.

5.2 Aspectual restrictions with different predicate types

Perfective and imperfective are sometimes found to be restricted with respect to situation type. In particular, two kinds of situations are sometimes found to lack a distinction between perfective and imperfective: states and achievements. In SENĆOŦEN, individual-level states are expressed with truly stative predicates, which are arguably adjectives (Montler 2003; §54.1). Also, since nouns can easily appear in the head of a VP in SENĆOŦEN and other Salish languages, it is worth considering whether the aspect distinction applies to them. Both nouns and adjectives represent individual-level events. In §5.2.1, the relevance of the individual-level vs. stage-level distinction to aspect is considered, and it is argued that aspect is only relevant to stage-level predicates.

The second situation type which may not take an aspect distinction is the Vendlerian achievement. English achievements are argued to be incompatible with progressives (without coercion or type-shift) on the grounds that they have no internal stages (Dowty 1979, Smith 1997, Mittwoch 1991, Rothstein 2004). Recall from chapters 2 and 4, however, that the Salish achievements argued for by Bar-el (2005) and especially Kiyota (2008) are not the same as Vendlerian achievements, since they are not all punctual. They are characterised instead by their strong telicity (culmination entailment). Therefore, we have two types of predicate to consider: strong telic predicates and punctual predicates. Many SENĆOŦEN predicates which are achievements in Kiyota's (2008)
terminology, i.e., the strong telic predicates, are only used marginally with the imperfective aspect. In §5.2.2, I will show that there is no strict incompatibility between these strong telic achievements and the imperfective, but rather that these forms are rare. I suggest that this rarity results from the absence of a need to use these forms in ordinary discourse. The strong telic achievements are normally exploited for their telicity, and a progressive achievement does not allow that telicity to be realised, since it does not refer to the situation’s culmination. There are other situation types built on the same base available to be used in progressive contexts, i.e., accomplishments and middles. Punctual predicates, on the other hand, do appear to be infelicitous with at least the progressive use of the imperfective aspect. It may be that punctual predicates are a sub-class of strong telic predicates; all of the examples I have recorded so far contain the same verbs.

5.2.1 Individual-level vs. stage-level predicates

In SENCOTEN, stage-level states are expressed with verbs (§4.1), and include the inchoative states discussed by Kiyota (2008: 39-47) and the positional states discussed in §4.1. Both types of stage-level state are compatible with both perfective and imperfective aspects. An inchoative state is given in the following examples, in the perfective (5.46), imperfective with progressive use (5.47), and imperfective with habitual use (5.48).

(5.46) QA SEN
{k^ey=san}
get.hungry[PFV]=1SG.SBJ

(5.47) QA,QI, LE, SEN
{r^o~k^oyo=1a=san}
IPFV~get.hungry=PST=1SG.SBJ
‘I got hungry when I saw the food.’ (CT Fieldwork 2006)
A positional state in the perfective and imperfective aspects is given here:

(5.49) U, EMET SW OL,  
CONTR=sit/be.home[Pfv]=2Sbj=LIM  
'Please sit down.'  (respectful way to offer a seat) (CT Fieldwork 2006)

(5.50) ĆŁ O, MET SEN  
k=*a?><mat=son  
PRF=sit/be.home<lPfv>=1SG.SBJ  
'I'm home now.'  (1.12)

With both inchoative states and positional states, the imperfective aspect views the state when it is already underway, while the perfective aspect views the whole situation of assuming a state and being in that state.

Individual-level states (i.e., homogeneous states), in contrast, only ever express a stative situation (Kiyota 2008: 41-43), not the assumption of that state, and do not have a choice of form. For underived individual-level states (adjectives) this is a plain form, which resembles the zero-marked perfective of verbs. It is used in all contexts. Even in (5.52), where an imperfective might be expected due to the habitual and temporary nature of the situation, the same plain form is used.

(5.51) TÁ U, NEĆIM TFE ĽOBEN  
ľe? ?u?=nǎk*im tōo tąpón  
also CONTR=red GNRL.DET ladle  
'The ladle is red too.'  (V2.58, 9V.58)

(5.52) NEĆIM TFE SČAČEL EČS ĽEĆÍLS  
nāk*im tōo sk*cēčol o=k*êt=s k*=čil-s  
red GNRL.DET day OBL=COMP=NMLZ day-3PSS  
'The sky’s red in the morning.'  [habitual reading] (40.5)

This is also true of derived individual-level states, i.e., resultatives. The single form resembles verbal imperfectives, but is used in both perfective and imperfective contexts.
One way to analyse this distribution would be to say that individual-level states are always perfective and resultatives are always imperfective. This was the approach taken in Turner (2007), where I argued that resultatives are built on imperfective verbs. This approach would then predict that derived and non-derived individual-level states have different semantics. Such a prediction in itself is not undesirable. Resultatives do seem to differ from non-derived individual-level states in that they refer to states resulting from prior telic situations. This is predicted by Koontz-Garboden’s (2007, 2008) monotonicity hypothesis, which states that operators can only be added, and not deleted, as a result of added derivational morphology.

Another way to account for this lack of formal variation is to posit that aspect is not relevant to adjectives; that is, aspect is a verbal feature. In §4.1, I outlined Montler’s (2003) argument that individual-level states are adjectives in Klallam and Northern Straits, and provided some evidence to support this claim. Montler (2003) claims that almost any lexeme can take aspect, however I have not found that to be the case, and I have been unable to elicit forms of adjectives with imperfective shapes or resultatives with perfective shapes.

Another type of individual-level predicate describes entities. These nouns also show no distinction between perfective and imperfective aspect. This property of nouns has also been recognised for Lushootseed and St’át’ímicets (van Eijk & Hess 1983), and was discussed in §4.1. The word *šlenay* ‘woman’ has the same form in different contexts.
As with adjectives (underived individual-level states), I have been unable to elicit any different aspectual form of a noun, and there is no perfective-imperfective contrast among nouns found in any of the non-elicited discourse I have consulted.

However, there are some nominalisations which appear to be inflected for imperfective aspect. These fall into two groups: relative/subordinate clauses and deverbal nouns. H. Davis (1997: 65) mentions in a footnote that the nominalisation in subordination is inflectional and the nominalisation in deverbal nouns is derivational. This is the grammatical nominalisation vs. lexical nominalisation distinction discussed in the general linguistics literature (the enemy's destroying the city vs. the enemy's destruction of the city (Chomsky 1970, cited in Muysken 1999)).

Both relative and subordinate clauses in SENCOTEN involve nominalisations of entire clauses, as shown by Montler (1993) and Czaykowska-Higgins & Leonard (fc). When they contain verbs as their heads, the verb can be used in either aspect. Example (5.58) shows a perfective (a) and imperfective (b) relative clause. (5.59) shows an imperfective subordinate clause. Perfective subordinate clauses are found throughout the thesis (e.g., (5.46)).

(5.58)  

a. ?u?=xð-i-t=sən  
CONTR=know-PERSIS-C.TR[PFV]=1SG.SBJ  
kʷsə  swəʔəʔə?  toni-at  
REM.DET  man  get.hit-C.TR[PFV]  
‘I know the man who hit it.’ (Montler 1993: 254)
Relative and subordinate clauses are not really examples of nouns, since they are whole clauses containing VPs and inflectable not only with aspect, but also with object agreement, perfect, mood, and other categories which appear on heads of VPs.

Deverbal nouns provide more of a problem for my claim that individual-level predicates do not inflect for aspect. An example of a deverbal noun is in (5.35), derived from the verb root \(^{v}c^{\cdot}k^{\cdot W}x\) 'get fried'.

Some nouns have the form of an aspect-inflected verb, prefixed with a nominaliser.

Comrie (1980: 213) discusses a similar phenomenon in Russian. Russian deverbal nouns can sometimes use the perfective form of the verb, and sometimes the imperfective; however, Xoxlačeva (1969: 51, cited in Comrie (1980)) shows that the distinction between the two is not systematic. In Polish, on the other hand, aspect can be systematically distinguished in nominalisations (Rozwadowska & Spencer 2001). Tom Hukari (p.c.) notes that most of the imperfective-looking nouns in Halkomelem denote instruments, and that seems to be the case in SENČOTEN too. Therefore it seems that there is some systemativeness in the use of different aspects in nominalisations. The SENČOTEN examples
are nominalisations of habitual situations (i.e., for (5.61) ‘It fell into the container where things are washed’ and not ‘It fell into the place which is being a sink’).

Spencer (2010: 139) notes that category-changes sometimes derive lexemes which preserve morphological distinctions of the base category. He discusses German de-adjectival nouns, which decline like adjectives. The SENCÔFEN nominals could thus be retaining some of the morphological distinctions of their verbal bases. However, they do not really maintain the perfective-imperfective distinction of verbs. One nominalisation has either a perfective shape or an imperfective shape, and does not alternate between the two. The word for ‘sink’, for example, is always ʃl̥akʷələ and never ʃl̥akʷila, and the word for ‘fried bread’ cannot be sčəkʷə (which is actually a resultative ‘it’s fried’). Therefore, since aspect on nominalised verbs is neither productive, distinctive, nor regular, I do not consider it a problem for my claim that nouns do not distinguish aspect.

Non-derived (lexical) nouns are always plain, even when in verbal position. We could say that all nouns are in the perfective aspect, then, but this seems odd given that perfective is used to place the time of the situation within a reference time (nouns are more like imperfectives in this respect). An alternative is to claim that nouns in any position, including predicate position, do not take grammatical aspect. Hess & van Eijk (1985: 2) claim that in Lushootseed (Central Salish) and Lillooet (St’át’imcets, Interior Salish), verbs can take aspect morphology and nouns cannot. Beck (1995: 5) compares Bella Coola (Salish) to several other languages, showing that it is not unusual to use a noun as a predicate. This does not provide evidence, he argues, that Salish has no verb-noun contrast. Building on these two previous arguments for a noun-verb contrast in Salish languages, I argue that in SENCÔFEN too, nouns can be in predicative position but cannot take grammatical aspect.

The observation that lexemes denoting entities and individual-level states do not distinguish aspect is not enough to argue for a lexical category distinction between nouns, adjectives, and verbs. It is likely that this aspectual restriction exists because nouns and adjectives denote individual-level predicates and not stage-level predicates. Arché (2006:
179-187) shows that Spanish individual-level predicates only occur in the imperfective (with habitual use) when they are coerced into stage-level interpretations. However, independent arguments were summarised in §4.1 that there is a noun-adjective-verb contrast in SENÇÔTÊN.

In contrast, all stage-level predicates do inflect for aspect. That is, all verbs have both a perfective and an imperfective form\(^6\). However, for some predicates, the imperfective is rare and often rejected or questioned by speakers. These events are discussed in the next section, where it will be argued that the marginality of such imperfective forms results from pragmatic oddness and not ungrammaticality or semantic incompatibility.

5.2.2 Achievements: strong telicity and punctuality

In Turner (2007), I claimed that imperfectives could not be used with unaccusatives. Two examples of imperfectives of unaccusative-like verbs were given in that article, but they were argued to fall into the group of verb roots Gerds & Hukari (2006a) call “swingers”, which have both unaccusative and unergative properties.

(5.62) YÔT OL U KÀSEL TTE SIOILE

cy=qal ?u=qes=ôl
talways=lim CONTR=fall.in.water\IPFV

tôô siô=ôô

E TTE KÔ, q^a?

?ô tôô OBL GNRL.DET water

‘The leaf is always falling in the water.’ (Turner 2007: 48)

(5.63) BÀÇÈL

pek=ôô

rise.to.surface\IPFV

‘surfaces every now and then’ [e.g., a buoy] (Turner 2007: 55)

Kiyota (2008: 89) confirms that he did not find imperfectives of unaccusatives in his fieldwork, though this was not the primary focus of his research. He suggests that imperfectives of achievements are not felicitous in SENÇÔTÊN. Recall (chapter 4) that Kiyota’s achievements include both unaccusatives and non-control forms. Indeed, I have

\(^6\) As noted in §3.5.2, a few verbs show syncretism between perfective and imperfective forms.

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found that non-control forms are often rejected in the imperfective (5.64), just as unaccusatives often are (5.65).

(5.64)  ? NENONEW Ł TE CÆ, TFE ČESE MO,EK

IPFV~get.eaten-NC.TR=1PL.SBJ=PST.DIR.EVID GNRL.DET two duck

'We’re managing to eat the two ducks.' (2.16)
(rejected by one speaker)

(5.65)  ? I, BEBEŁNONET

CONTIN-IPFV~hatch-NC.TR-NC.REFL

'It’s hatching.'

However, through further fieldwork and setting up pragmatically more likely contexts for imperfective use, I have found that imperfectives of both types of achievements are possible.

(5.66)  ČŁ I, TOČEŁ TFE SDÅČEN

PRF=CONTIN-get.broken\IPFV GNRL.DET tide

'The tide is breaking.' (2.28)

(5.67)  I, TO,TE,LNEW SW

CONTIN-IPFV~learn-NC.TR=2SBJ

'You’re starting to learn.' (20.21c)

Since imperfective achievements are acceptable in the right contexts, there is clearly not an absolute restriction against them. They are not infelicitous as a class, but there still must be a reason they are often rejected by speakers. Bar-el (2005: 269) also notes the variable acceptability of Skwxwú7mesh achievements with the progressive and notes that imperfective achievements are normally interpreted as habitual, not progressive.

English achievements, traditionally considered incompatible with progressive, do take progressive in some contexts, but this is argued by some to involve coercion (Smith 1997) whereby the progressive does not target the event itself but some stages external to the event, or to involve shift in situation type from achievement to accomplishment (Mittwoch 1991) or to something similar to an accomplishment (Rothstein 2004). English progressive achievements are not a good comparison with SENÇOTEN imperfective achievements, because the English progressive is different from the SENÇOTEN imperfective and the English achievement is different from the SENÇOTEN achievement.
First, the English progressive is often incompatible with achievements because it is used only in progressive contexts, not in habitual contexts. Imperfectives like the SENĆOŦEN imperfective are not only used as progressives, but also as habituais. The habitual use of the imperfective is available to many SENĆOŦEN achievements, both non-control forms and unaccusatives.

(5.68) YOT SEN OL NO,ENEW TTE MO,EK
yaθ=san=ʔal na<ʔa>-nax* tθ θa maʔaqʷ
always=1SG.SBJ=LIM get.eaten<IPFV>-NC.TR GNRL.DET duck
'I have ducks all the time.' (24.71b)

(5.69) YOT OL, U QÁNNES
yaθ=ʔal ?u?=k*en-n-ʔa
always=LIM CONTR=see<IPFV-NC.TR-3ERG
TTE SMÁLMEL ET PELEC
tθ s-melmol θa=ʔa polak
GNRL.DET NMLZ-make,make.mistake OBL-PN.DET Philip
'She always sees Philip’s mistakes (every time).’ (27.9)

(5.70) YOT OL, U, TO,0EL TTE SXEL,ÂL,S
yaθ=ʔal ?aw tak*=ʔal tθ θa sxolels
always=LIM CONTR break<IPFV GNRL.DET pencil
'You’re always breaking the pencil; The pencil is always breaking.’ (13.7a, 44.1)

(5.71) ĖBEKÁL TTE HOLES
k*=ʔa-k*el tθ halas
IPFV-hide GNRL.DET Horace
TU, ENÁS ĞIL FE Katie
taw ?one-s k*ʔl θa Katie
little come-3POSS appear[PFV] FEM.DET Katie
'Horace hides whenever Katie visits us.’ (24.82a)

Examples (5.62) and (5.63) above from Turner (2007) are also habitual achievements.

Second, the English progressive is traditionally considered to be incompatible with achievements because they are punctual. Truly punctual events in SENĆOŦEN are also incompatible with the progressive use of the imperfective.

(5.72) ĖLELÁL  I, TÁĈEL ĖTE NE SCÁĆE
čelal ?i?=tečel k*ʔa n a sceča
almost COM=arrive FEM.REM.DET 1SG.POSS friend
'My friend has almost/just about arrived.’ (V2.83, 10V.83)
(given when asked for ‘My friend is arriving’ #te<ʔ>čal (imperfective) here.)
When these same verbs are used to describe events which are not punctual, imperfective as a progressive is acceptable. In the following example, a plural subject allows either an iterative interpretation of the event or a progressive interpretation.

(5.73) I, ÁLE TE ?i?4-?eta=to CONTIN-PROX.AUX=PRS.DIR.EV CŁ I, TÁ,ČEL k*4=??4-te<?>=čol PRF=CONTIN-arrive<IPFV> TFEN, SCÁLEČE t0čo sèc<la>ča GNRL.DET;2POSS friend<PL> 'Your friends are arriving one by one; Your friends are just arriving.' (10V.82a)

Another way an imperfective can be used with a normally punctual event is when it describes a series of iterative events with the same subject participant.

(5.74) ČL,WEL k*1-wol TFÉ SKEKEL IPFV~appear GNRL.DET;sq=aq=ol 'The sun shines and then goes away again.' (32.4b)

(5.75) NEK,NON,ET naq=na-n<<?>=ol fall.asleep-NC.TR-NC.REFL<IPFV> 'She's falling asleep; She keeps falling asleep.' (32.8b)

(5.76) TOČEL tak*et TFÉ SXEL,ÁL,S get.broken<IPFV GNRL.DET pencil 'The pencil keeps breaking.' (2.29)

This last sentence had originally been rejected by the speakers when I asked if it meant 'The pencil is breaking right now.'

We could say that examples like those above involve coercion or a change in situation type from an achievement to an accomplishment. However, SENČOTEN achievements are not characterised by punctuality, but rather by telicity, and many SENČOTEN achievements are not used to describe punctual events. These also are compatible with the progressive use of the imperfective.

(5.77) I, ĽALU, TFÉ STÁŠČELŠ CONTIN IPFV~escape GNRL.DET back-3POSS 'Her back’s getting better.' (13.82)
Thus, it appears that only punctual achievements, and not the whole class of achievements are really incompatible with progressive. Another approach is to split the class of achievements (strong telic predicates) into a class of punctual and non-punctual predicates. Then we can either say that (5.73) above has shifted or been coerced into a non-punctual reading, or that situation type applies at the clausal level and (5.72) is punctual while (5.73) is non-punctual.

Although all achievements referring to non-punctual events are compatible with a progressive interpretation of the imperfective, many achievements are marginal in their imperfective use. What I term *marginal imperfectives* are those imperfectives with one or more of the following properties.

1. The imperfective is rejected out of context but used in context.
2. The imperfective is accepted out of context but the speakers are reluctant to use it in pragmatically appropriate contexts, preferring another form (usually a control passive).
3. The imperfective is accepted by one speaker but rejected by another or is accepted in one fieldwork session but rejected in another.
4. The speakers are unsure of the form of the imperfective, sometimes using reduplication, and sometimes a glottal infix.\(^{66}\)

Examples of each of these properties at work are given here. First, imperfective achievements are often rejected during elicitation sessions, when I ask the speakers whether or not the form is possible. Some of these same imperfective forms were then uttered by the same speakers in context. For example, (5.79) was rejected in elicitation, but (5.80) and (5.81) are attested examples.

\[(5.79)\]  
\[
\text{i} \quad \text{KO,KI} \quad \text{TFE} \quad \text{SPÀ,ET} \\
\text{?i} \quad \text{q\^{a}-q\^{a}y} \quad \text{t\^{o}} \quad \text{spe\^{a}o} \\
\text{CONTIN} \quad \text{IPFV-die} \quad \text{GNRL.DET} \quad \text{bear} \\
\text{'The bear is dying.' (6.27)}
\]

\[\text{get.hurt\text{UPFV}} \\
\text{'be hurting; be sick (i.e., ill)'}\]

---

\(^{66}\) This only applies to the stem shapes which do not have an entirely predictable imperfective form. Variability in form is not found with CaC or CCaC stems, which always get suffixed and metathesised imperfectives, respectively (Turner 2007, Leonard & Turner 2010).
Example (5.80) was used by one of the speakers during a conversation about the inappropriateness of using the SENCOTEN equivalent of ‘how are you’ as a greeting.

Example (5.81) was used in the video descriptions (see more discussion of this sentence in §5.3).

The opposite situation also occurs. Some imperfective achievements are accepted out of context, but there seems to be resistance to their use.

One speaker said that (5.82) was okay and gave the translation above, but every time he went to repeat it he switched to the following control passive form.

Several imperfective achievements have been accepted by one speaker and rejected by another, or accepted on one occasion but rejected on another.

Lastly, many of the imperfective achievements are variable in form. (5.85) is an alternate form to (5.84). Another variable form is shown in (5.86) and (5.87).
I suggest that all of these properties of marginal achievements points to them being rare. First, their variable acceptance may indicate that the speakers have to stretch their imaginations to think of a context where uttering an imperfective achievement is likely. Second, the variable form of the imperfective achievements suggests that they are infrequent. This follows from the observed pattern that irregular words in language are often the most frequent forms, and evidence that frequent words are stored in the lexicon, while infrequent words are more likely to be generated (as discussed by Bybee 1985; Stemberger & MacWhinney 1988; Baayen, Dijkstra & Schreuder 1997; Pinker 1999; Pierrehumbert 2001). If the SENCOTEN imperfective achievements in (5.60) through (5.63) were stored, the speakers would be familiar with their form, and it is unlikely they would produce it variably. This is what we find with imperfective activities, accomplishments, and inchoative states with the same shape. Although the stem shape CVC=aC can form the imperfective with reduplication or glottal infixation (Leonard & Turner 2010), (5.88) always takes reduplication (not glottal infixation), and (5.89) always take glottal infixation (and not reduplication).

(5.88) **DEDI,LEM,** **TE** Janet

\[
\begin{align*}
\text{la} = \text{sing} & \quad \theta \text{a} \quad \text{Janet} \\
\text{IPFV} = \text{sing} & \quad \text{fem.det} \quad \text{Janet}
\end{align*}
\]

'Janet’s singing; Janet’s already singing.' (CT Fieldwork 2006; 45.20)
(5.89) HÁ,SEN, SEN
    he<=?>søj=son
sneeze<IPFV>=1SG.SBJ
    'I'm sneezing.' (CT Fieldwork 2006)

Compare these with the imperfective achievements in (5.84) through (5.87), which are sometimes given as glottal infixed forms (5.84, 5.86) and sometimes as reduplicated forms (5.85, 5.87). I suggest that the imperfective achievements are mostly generated by the speakers, who maybe cannot recall ever having heard the forms spoken.

In this section I have argued that SENĆOTEN perfective and imperfective aspects can be used with all stage-level events, but not with individual-level events. I have discussed the marginal acceptance and variability of certain imperfective achievements, and hypothesised that this marginality and variability results from them being rare. The next section tests this hypothesis by counting frequency of occurrence in discourse, and finds that discourse supports the hypothesis, showing that imperfective achievements are indeed rare.

5.3 Aspect use in non-elicited discourse

This section has two aims. The first is to show that aspect is used in SENĆOTEN discourse in a way similar to that in other languages. Numerous authors (e.g., Forsyth 1970; Hopper 1979; Kamp 1979, Kamp & Rohrer 1983; Dry 1981, 1983; Aristar & Dry 1982; Fleischman 1985, 1991; Smith 1997) have noted that perfective aspect tends to be used to foreground events in the discourse, and that this involves both introducing new events and narrating sequences of events, among other functions. Imperfective aspect tends to be used to background events in the discourse, in order to provide elaboration on previously mentioned events and/or to talk about events which occurred concurrently. I will show in §5.3.1 that SENĆOTEN aspect has this function as well.

The second aim of this section is to show that the distribution of SENĆOTEN aspect with respect to different situation types described in §5.2 is not only evident in elicitation contexts but supported by frequency in the discourse. In §5.2, I claimed that individual-level predicates (nouns and adjectives/individual-level states) show no
perfective-imperfective distinction. In the discourse considered in this section, I have found no occurrences of individual-level predicates with imperfective forms. I also claimed in §5.2 that achievements in the imperfective were *marginal*. The symptoms of this marginality were shown in that section: they are variably accepted in elicitation contexts, and the speakers seem unsure about their form. I hypothesised there that the reason for this marginal acceptability of imperfective achievements was that, in the days when *SENĆOTEN* was spoken by the whole Saanich community, they were used rarely compared to perfective achievements and compared to imperfectives of other event types. §5.3.2 will show that this hypothesis is born out by data from non-elicited discourse.

This section is based on two types of “non-elicited” discourse: texts and video descriptions. I use the term “non-elicited” loosely, as both types result for the most part from linguistic fieldwork, and the video descriptions in particular are a form of elicitation. However, these discourse types differ from the elicited material focussed on in the rest of this chapter in two crucial respects: they did not involve the use of a meta-language (English), and they were produced in context. The texts consist of Northern Straits texts from four dialects: *SENĆOTEN* (Montler 1986, Saanich Native Heritage Society 2007), Sooke (Efrat 1969), Songish (Raffo 1972), and Samish (Galloway 1990). All of these come from linguistic descriptions of the dialects in question, with the exception of a collection of stories put together by native speakers and published by the Saanich Native Heritage Society (2007). The video descriptions were made during the 2008 fieldwork sessions. These are described in detail in the methodology section (§1.2). I put together videos specifically aimed at eliciting different aspects and showed them to the speakers.

### 5.3.1 Grammatical aspect in discourse

In both types of discourse, Northern Straits has a significantly higher percentage of perfective verbs than imperfective verbs overall. Out of all verbs inflected for aspect, the

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67 I kindly thank John Elliott (Chair, Saanich Native Heritage Society) for giving me permission to cite this publication in my thesis.
overall percentage of perfectives in the five Northern Straits texts consulted is 69% (245/357), compared to 31% imperfectives (112/357). This seems to be the case in other languages as well. For example, in Aaron's (1999) study of Obolo (Bantu), there are more perfectives than imperfectives in all discourse types he considers; e.g., in one narrative there are 140 perfective verbs and only 20 imperfective verbs (Aaron 1999: 93). In Davidson & Werle's (2010) analysis of a short Ditidaht (Southern Wakashan) story, there are ten instances of the 'momentaneous' aspect, which is indicated morphologically and which Davidson (2002) and Rose (1981) argue is a perfective. There appear to be 16 predicates in the story, and so the momentaneous is used in 62% of clauses. Josselson (1953) counted more perfectives (53.1%) than imperfectives (46.9%) in a corpus of Russian conversational texts (cited in Greenberg 1966/2005: 49; numbers not given). I should note that aspect in these four languages is unlikely to be exactly equivalent. We have already seen (chapter 2) that Slavic aspect has been the subject of much debate. Southern Wakashan languages also seem to have a much more complex aspect system than that of SENCOTEN, possibly involving both inherent and morphological aspect (Sapir & Swadesh 1939, Bach 2005). However, the comparison suggests that, in texts, the contexts where perfective aspect is used are more numerous than those where imperfective aspect is used.

Many authors have discussed the use of grammatical aspect as a device for grounding in discourse. In particular, in several languages perfective aspect is used in foregrounded events, while imperfective aspect is used in backgrounded events. Hopper (1979) asserts that this is the primary function of aspect. In the Discourse Representation Theory of Hans Kamp (e.g., Kamp 1979, Kamp & Rohrer 1983), the French passé composé (past perfective) and imparfait (past imperfective) are defined in terms of their role in discourse. Chvany (1985) and Fleischmann (1985) discuss the use of reversals (i.e., foregrounded imperfectives and backgrounded perfectives) for narrative effect.

\*\* Note: this is my count, based on the interlinear glossing and sentence divisions given in Davidson & Werle (2010).
Another related idea is that perfective aspect is used to describe events in sequence, where one event is interpreted as having finished before the next begins. Imperfective, on the other hand, is used to describe simultaneity of events. This goes along with the backgrounding function of imperfective, where a backgrounded event may take place simultaneously with a foregrounded event. Both of these ideas are evidenced in the “punctual clause modification” tests discussed in §5.1 and used by Bar-el (2005) and Kiyota (2008) in their descriptions of Skwxuw7mesh and SENĆOŦEN aspect, respectively.

(5.90) ?i<7>Ɂən təo nə Ɂənəqənə
sing<IPFV> GNRL.DET 1SG.POSS PL~child
kʷ=ən=s Ɇən
COMP=1SG.POSS=NMLZ get.home[PFV]
‘My children were already eating when I came home.’ (Kiyota 2008: 261)

In the sentence *My children were eating when I came home*, the eating event is taken as a backdrop for the coming home event. There is thus temporal overlap between the two events, and the progressive (imperfective) is used. In *My children ate when I came home*, on the other hand, the coming home event and the eating event occur in sequence.

Perhaps the grounding and sequencing functions of grammatical aspect cause the imbalance in the use of the two aspects in discourse. Certainly in SENĆOŦEN, the pattern of aspect use throughout the texts and descriptions is to start with a few clauses in the imperfective aspect, which describe the background for the storyline, and then to use perfective aspect for most of the rest of the clauses in the narrative. The only times imperfectives are used throughout the story are when new backgrounds are set, simultaneous events are described, or habitual events are described. Also, some of the backgrounding clauses have individual-level predicates as their heads, so this cuts down on the number of imperfectives even more. In the two subsections of §5.5.1, I will show this pattern of aspect use in SENĆOŦEN texts (5.5.1.1) and video descriptions (5.5.1.2).
5.3.1.1 Grounding and sequencing in texts

In the texts considered, SENČOTEN aspect appears to have the same correlation with backgrounding/foregrounding discussed for other languages. Each text begins with several clauses setting up the background for the story, and these clauses are headed by individual-level predicates or imperfectives. For example, of the first four lines of the text *Raven Abandons His Son* (Montler 1986), three are headed by imperfective verbs, and one by a complex predicate nominal. Two examples are given here: lines 1 and 4.

(5.91) mōkʷ kʷečil ?i=ōw=G*om?eíĉkʷ tso spaal
    every day COM=CONTR=fish/IPFV GNRL.DET raven
    'Every morning he’d go out fishing, the Raven.' (Montler 1986: 242, 258)

(5.92) kʷe-kʷi?=ʔal ?aw-tnʔaʔ steŋ s-ʔhon-s
    IPPFV=GET.hungry=LIM NEG-EXIST what NMLZ-eat-3P0SS
    'They were hungry but they didn’t have any food.' (Montler 1986: 242, 258)

When the storyline starts, perfectives are used. Lines 5, 8, and 10 are given here. The intervening lines are also headed by perfective verbs, but involve near-repetition (i.e., 6 is a near repetition of 5, and 9 of 8).

(5.93) naʔeʔ skʷečol ?iʔ-ʔoxʷi-t-ʔos
    one day CONTIN-be.swept-C.TR-3ERG[PFV]
    OBL GNRL.DET snaxʷ=ə tso men-s
    GNRL.DET canoe GNRL.DET father-3P0SS
    'One day his son was sweeping his father’s canoe.' (Montler 1986: 242, 258)

(5.94) ?iʔ=kʷ=tal-naxʷ kʷ s=ʔu? ?i<ʔ=ʔon-ʔs
    COM=PRF=learn-N.C.TR[PFV] COMP NMLZ=CONTR eat<IPFV>-3POSS
    tso men-s ?ə kʷsiʔə s-hewə
    GNRL.DET father-3POSS OBL REM.PROX.DEM NMLZ-away
    'He found out his father eats when he’s away.' (Montler 1986: 242, 258)

(5.95) ?aat go.aboard[PFV] OBL GNRL.DET canoe GNRL.DET father-3POSS
    s=ʔu? kʷeyl-s ?ə tso kʷečil
    NMLZ=CONTR hide-3POSS[PFV] OBL GNRL.DET morning
    'He got on the canoe and hid early in the morning.' (Montler 1986: 242, 258)

Notice that these four perfectives also depict a string of four sequential events: the son swept the canoe, then found out about his father, then went on board the canoe, then hid.

There is an imperfective among these four lines as well: ?iʔ<ʔ=fən ‘eat<IPFV>’ in (5.70). This describes a background event which has been going on for some time, during
the time before the son discovers that it has been going on. Recall the discussion above of
imperfectives used to elaborate on previously mentioned events; we already know from the
first line of the story that Raven goes out fishing. Now we know that while he’s out fishing
he eats. Another example of this is in line 14, where the verbs ‘go aboard’ and ‘hide’ are
now used in the imperfective, as they are now background events.

(5.96)  ?owe-na?  s-xe-i-t-s  kw=s
  NEG-EXIST  NMLZ-come.to.know-PERSIS-C.TR[PFV]-3POSS  COMP=NMLZ

k=w=9al9a=s  ts=  swiwlas
PRF=go.aboard[IPFV-3POSS  GNRL.DET young.man

?o  ts=  snox=x=  ts=  s-k=x~k=eyl
OBL  GNRL.DET canoe  GNRL.DET NMLZ[IPFV~hide

‘He didn’t know his son was hiding on the canoe.’ (Montler 1986: 243, 258)

The new, foregrounded, event in (5.96) is that Raven doesn’t know about his son’s actions,
and the verb describing this xcit ‘know’ is perfective here.

While perfectives are used to describe sequences of events, imperfectives are used
to describe simultaneous events, as in the crying and singing events here.

(5.97)  x=x=9e=9=9  ts=  swiwlas  saw  la~til=nd=s
  cry<IPFV>  GNRL.DET young.man  SEQ  IPFV~sing-3POSS

‘The young man cried and he sang.’ (Montler 1986: 248, 259)

Notice these are imperfective in SENÇOTEN, even though they are non-progressive in the
English translation.

I have focussed on Montler’s (1986) text for the discussion here, because Montler
has provided an interlinear gloss for the text and also because it is in SENÇOTEN, so I
have been able to re-analyse it in light of more recent research in order to confirm/correct
the aspectual values given in his glosses. However, the other Northern Straits texts appear
to follow a similar pattern. They start with imperfectives and individual-level predicates
giving a background context for the story, and then they use perfectives to narrate the main
events of the story. Imperfectives are used throughout to elaborate on previously
mentioned events and/or to describe simultaneity of events.
5.3.1.2 *Grounding and sequencing in video descriptions*

The way aspect is used in the video descriptions depends on the type of video clip played. The first three video clips I played were fairly long with a sequence to them. The descriptions the speakers gave those videos patterned similarly to the texts discussed in the §5.3.1.1. The initial clauses are in the imperfective aspect, if the predicate is inflectable for aspect (i.e., a verb). These clauses describe events which are already underway when the video begins and provide background:

(5.98) ŁEML, \( \text{W YEW O} \)
\[
\begin{array}{l}
\text{\small \{\small \text{rain PFV=CONJECT=Q}\}} \\
\text{\small \{\small \text{It's raining, eh?}\}} \\
\end{array}
\]
(V1.20; video 2 ‘Katie arrival delayed’)

(5.99) U QEN,TES
\[
\begin{array}{l}
\text{\small \{\small \text{watch 3POSS}\}} \\
\text{\small \{\small \text{She’s looking at her watch.}\}} \\
\end{array}
\]
(V1.26; video 3 ‘Katie arrival expected’)

(5.100) ĖL, I ŠETENS
\[
\begin{array}{l}
\text{\small \{\small \text{young lady}\}} \\
\text{\small \{\small \text{The young lady appeared walking, eh.}\}} \\
\end{array}
\]
(V1.12; video 1 ‘Katie arrival normal’)

This last one is headed by the verb \( k^\text{il} \) ‘appear’ in the perfeetive aspect, but it is conjoined to a verb in the imperfective aspect (\( \text{štəfj} \) ‘walking’). But when \( k^\text{il} \) is the only verb, it is used in the imperfective aspect at the beginning of a description:

(5.101) ĖL, WEL,S
\[
\begin{array}{l}
\text{\small \{\small \text{upstream, area}\}} \\
\text{\small \{\small \text{It’s showing way up the hill.}\}} \\
\end{array}
\]
(V1.29; screensaver of Wales photos)

The clause in (5.101) was uttered when my screensaver came on and one of the speakers thought it was another video playing.

After these imperfective clauses, the sequential events which occur are described using the perfective aspect. This is illustrated here with a description of a sequence of events from video 2 ‘Katie arrival delayed’.

(5.102) WISETES
\[
\begin{array}{l}
\text{\small \{\small \text{umbrella 3POSS}\}} \\
\text{\small \{\small \text{She shook her umbrella.}\}} \\
\end{array}
\]
(V1.21a)
Here’s another example from the description of video 1 ‘Katie arrival normal’.

(5.105) SU SKÁS TFE LECLIS
s=u? sqe-s
NMLZ=CONTR take.out-EFFORT[PFV] GNRL.DET key-3POSS
‘Then she took out her keys.’ (V1.14)

(5.106) SU WŒEĶETS TFE SOŁ
s=u? x=k*aq-ot-s
NMLZ=CONTR be.opened-C.TR-3ERG[PFV] GNRL.DET door
‘Then she opened the door.’ (V1.15)

Again, these clauses are in the perfective aspect. Thus, the descriptions of the slightly longer videos, which had a clear storyline, patterned similarly to texts: imperfective aspect is used in backgrounding clauses at the beginning of the description, and perfective aspect is used to describe sequences of events which make up the main action of the story.

In descriptions of shorter videos, it is harder to see if the same pattern holds. Sometimes only one clause is used to describe the video. However, where they could, the speakers invented connections between the videos and elaborated on the context in order to provide a short storyline for even the single-event videos. In these cases, the same pattern of imperfective and perfective aspect is observed. The following clauses describe a video of butter melting in a frying pan.

(5.107) JEĆXEN E ĆEĆÁ?
čak*č-oŋ=?o=k*če
get.fried[PFV-MID]=Q=REQ
‘Is she frying something?’ (V2.14a)

(5.108) MEQELO, ĆS
mok*=ola?
k*=s
be.awaited-ANT[PFV] COMP=NMLZ
ČOXEMS TFE PETE
cax*oŋ=s təŋ pota
get.melted-MID-3POSS[PFV] GNRL.DET butter
‘She’s waiting for the butter to melt.’ (V2.17)
Again, the speakers begin with an imperfective verb to describe the context (someone’s frying something), and then use perfective aspect to describe subsequent events.

Throughout this section (5.3.1), I have shown how perfective and imperfective aspects have a fairly consistent pattern in their distribution throughout both texts and video descriptions, and that this pattern follows that of other languages. Imperfective aspect is used in backgrounding and describing simultaneous events; perfective aspect is used in foregrounding and describing sequences of events. In the next section, I will discuss the patterning of different event types in discourse, and how they interact with grammatical aspect.

5.3.2 Event types in discourse

Correlations between grammatical aspect and situation type have been discussed in a number of different domains, such as language acquisition (Andersen & Shirai 1994, Shirai & Anderson 1995, Wagner 2009), realisation of neutral aspect (Smith 1997, Bohnemeyer & Swift 2003), and formal models which make use of similar mechanisms for telicity and perfectivity (Kratzer 2004, Borer 2005).

In SENCOTEN too, there is already some evidence for this correlation: in perfective clauses with no overt tense, atelic verbs are often interpreted as presently occurring events, while telic verbs are almost always interpreted as either finished (not necessarily completed) events in the past, or events to occur in the future (Kiyota 2008). When present time reference is given to telic events, the verbs describing the events almost always take imperfective aspect. The fact that this aspect is not obligatory in describing presently occurring atelic events shows that there is some correlation between atelicity and imperfectivity.

Another area of SENCOTEN where the correlation is apparent is in the marginal acceptance of achievements in the imperfective (§5.2). Achievements are the most telic
situation type in SENCOTEN, entailing culmination when used with perfective aspect (Kiyota 2008). And yet these correlations are not absolute: we know that telicity ≠ perfectivity because it is possible to have imperfective achievements (§5.2) and when the appropriate contexts are set up (i.e., punctual clause modification), atelic verbs obligatorily take imperfective aspect. The aim of this section, then, is to show that, while telic ≠ perfective, there nonetheless is a correlation between telicity and perfectivity in SENCOTEN, and this is most apparent in discourse, where there is a higher frequency of atelic imperfective and telic perfective verbs than telic imperfective and atelic perfective verbs.

As I mentioned in §5.3.1, the proportion of perfective verbs in discourse is much higher than imperfective verbs. In the five Northern Straits texts I considered, 69% (245/357) of verbs in main and subordinate clauses are perfective, while only 31% (112/357) are imperfective. In the video descriptions, 76% (140/184) of verbs are perfective, while 24% (44/184) are imperfective. This is summarised in the following table:

<table>
<thead>
<tr>
<th></th>
<th>Perfective</th>
<th>Imperfective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Texts</td>
<td>245</td>
<td>112</td>
</tr>
<tr>
<td></td>
<td>69%</td>
<td>31%</td>
</tr>
<tr>
<td>Video descriptions</td>
<td>140</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>76%</td>
<td>24%</td>
</tr>
<tr>
<td>Total</td>
<td>385</td>
<td>156</td>
</tr>
<tr>
<td></td>
<td>71%</td>
<td>29%</td>
</tr>
</tbody>
</table>

However, these proportions are not the same for all situation types. In particular, there appears to be a correlation between perfectivity and telicity such that the most telic verbs (achievements) are almost all perfective, while the least telic verbs (activities) make up the greatest proportion of imperfectives.

Note that I was not able to count situation types directly for this analysis, as not all of the verbs found in the discourse have been tested according to Kiyota's (2008) tests. Instead, I counted aktionsarten—the morphologically defined verb classes of unaccusative, control transitive, middle, non-control reflexive, etc.—and made assumptions regarding their situation type based on the discussion in chapter 4. If the assumptions are right, the
patterns discussed in this section truly tell us about correlations between telicity and perfectivity (between situation type and grammatical aspect).

The following chart gives the proportions of perfective and imperfective aspect with different event types in Montler’s (1986) text ‘Raven Abandons His Son’.

Figure 5.1 Aspect and Event Types in ‘Raven Abandons His Son’

Achievements include unaccusatives and non-control transitives (no other non-control forms appear); accomplishments include control transitives (including those with the persistent infix), control reflexives, and control reciprocals; activities include unergatives, middles, and -sat inchoatives; and inchoative states include positional statives like *thana ‘stand up’. As shown in Figure 5.1, there are quite a few verbs which I have not included in one of the four stage-level situation types. First, the status of inchoatives derived with the prefix txʷʔ- is unclear as regards situation type or grammatical aspect. The prefix appears to be derivational, deriving verbs from non-verbs, but it can also appear with perfective and imperfective verbs. With imperfectives, the inchoative meaning scopes over the imperfective meaning (i.e., to start doing x and not to be starting to do x). Although I

---

60 An example of this is:  
\[
\begin{align*}
\text{txʷʔ₃sat}_₃\text{ʔal} & \quad ?₃\text{ʔ}_₃\text{ʔ}=₃\text{ʔ}_₃
\\
\text{k₃ʔᵣίl}_₃\text{ʔ} & \quad \text{INCH₃walk}\text{PFV}=\text{Lint} \quad \text{OBL}_{\text{COMP}}=\text{NMLZ} \quad \text{morning₃POSS}
\\
\text{‘I just walk now in the mornings.’} & \quad \text{(from 20.3d)}
\end{align*}
\]
claim that the inchoative prefix can derive verbs from non-verbs, I have not seen any examples of inchoatives derived from non-verbs that have any indication of imperfective aspect. Therefore, for the purposes of the frequency count, I have included prefixed inchoatives derived from non-verbs as perfective. However, the situation type and morphological status of the inchoative prefix, and its relation to grammatical aspect, are areas which would benefit from further investigation.

Motion verbs and verbs of quotation were also counted outside of the situation types. Gerds & Hukari (2000) and Montler (2008) have discussed the use of treating motion verbs as a separate class in Halkomelem and Klallam, respectively. At this point, I do not know which class to put them in. I also counted separately the verbs used to introduce quotes in the story. I counted causatives separately because, as discussed in chapter 4, there is not enough data to associate them with one of the situation types. Lastly, there were a few verbs I was not sure how to classify. Their number is relatively small (6 out of 186 total verbs in the story), so they should not make much difference to the frequency information. Having now explained the existence of the extra categories in figure 1, I will limit the following discussion to the four main stage-level situation types.

Notice first that there is a very low frequency of imperfective achievements. In fact, there is only one:

(5.110) \[\text{\textsc{?wə-na? s-xǝ-i-t-s k}^\text{w}=s} \]
\[
\text{NEG-EXIST NMLZ-come.to.know-PERSIS-C.TR-3POSS[PFV]} \quad \text{COMP= NMLZ}
\]
\[
k^\text{w}=s=?ələ?=ə-s \quad \text{tsə} \quad \text{swiwəs}
\]
\[
\text{PRF=go.aboard/IPFV-3POSS GNRL.DET young.man}
\]
\[
?ə \quad \text{tsə} \quad \text{snəxət} \quad \text{tsə} \quad \text{s-k}^\text{w}e-k^\text{w}eyl
\]
\[
\text{OBL GNRL.DET canoe GNRL.DET NMLZ-IPFV-hide}
\]
\['He didn't know his son was hiding on the canoe.' (Montler 1986: 243, 258)\]

This verb \textit{k}^\text{w}eyl ‘hide, become hidden’ is counted as an unaccusative since it can take the control transitive suffix \textit{k}^\text{w}eyl-at ‘hide something’ and the resultative prefix \textit{s-k}^\text{w}e-k^\text{w}əl ‘be hidden’. However, it can also have an agentive subject, as indeed it has in (5.86), where the subject is \textit{tsə swiwəs} ‘the young man’. It also has a ‘managed to’ reading with the non-control reflexive suffix \textit{k}^\text{w}el-na\textit{pət} ‘manage to hide’, a reading which typically goes with
non-control reflexives of unergatives (§4.3.3.2). So it is not a typical unaccusative, and thus perhaps not a typical achievement.

Kiyota (2008) has shown that achievements are the only fully telic situation type; he calls accomplishments \textit{quasi-telic} due to their failure to entail culmination in the perfective aspect (chapter 2, §4.3.1.1). There is a much higher number of accomplishments in the imperfective aspect. There is admittedly a much higher number of accomplishments than achievements overall in the text, but even the percentage of imperfectives among accomplishments (18%; 8/44) is higher than the percentage of imperfectives among achievements (5%; 1/21). Accomplishments still favour the perfective aspect, with 82% (36/44) of accomplishments taking perfective.

Atelic verbs, on the other hand, occur in much larger proportions in the imperfective aspect. 55% (18/33) of activities are imperfective, and 56% (14/25) of inchoative states are imperfective. These numbers are very high considering there is such a low proportion of imperfectives to perfectives in the text overall. Here is another way of illustrating this imbalance between situation type and grammatical aspect: although the atelic situation types together only make up 31% (58/186) of the total verbs, they make up 65% (32/46) of the imperfectives in the text. The count of verbs of each situation type in each aspect is summarised in the following table.

\begin{table}[h]
\centering
\begin{tabular}{|c|c|c|c|}
\hline
Situation Type & Perfective & Imperfective & Total  \\
\hline
Achievement    & 20    & 1    & 21   \\
Accomplishment & 36    & 8    & 44   \\
Activity       & 15    & 18   & 33   \\
Inchoative State & 11 & 14  & 25   \\
Other          & 55    & 8    & 63   \\
Total          & 137   & 49   & 186  \\
\hline
\end{tabular}
\caption{Situation type and aspect counts in Raven Abandons his Son}
\end{table}

In summary, when sheer numbers are considered, there is a correlation between telicity and perfectivity. All but one of the strong telic verbs (achievements) are perfective, and a large majority of quasi-telic verbs (accomplishments) are perfective; the atelic situation types (activities and inchoative states) have a roughly equal proportion of perfectives and
imperfectives, despite the fact that only a minority of the overall verbs in the text are imperfective.

Now I will consider the video descriptions. The correlations here are not as strong as in the text, but a similar general pattern is found. With achievements, the most telic situation type, again only a small minority are imperfective (4/24 or 17%), and with activities, arguably the most typical atelic situation type (see below), a majority are imperfective (20/34 or 59%), again despite an overall scarcity of imperfectives in the descriptions (39 out of 182 verbs, or 21%).

With the texts, I suggested that the one example of an imperfective achievement may not be an achievement after all, or at least is not a typical achievement since it has both unaccusative-like and unergative-like properties. With the descriptions, I cannot use the same explanation. However, two of the four imperfective achievements found in the descriptions may not be achievements and/or may not be imperfective. My best guess is that they are, but I am not sure about their morphological structure. For example, for (5.111), I have analysed the verb as imperfective because the lexical suffix for body is listed as -ik*=os in the perfective and -iw*s in the imperfective in Montler (1986: 75). I have tagged it as an achievement due to the root xaf 'get hurt', which behaves like an unaccusative/achievement. However, the effect of lexical suffixes on situation type has not been studied, and I have not tested the whole verb xaf*os for situation type.

(5.111) XELOU,S CE

get.hurt-BODY\IPFV=PST.DIR.EV GNRL.DET back-3POSS

‘Her back is hurting.’ (V2.16)

This leaves only two good examples of imperfective achievements in the descriptions:

(5.112) ĀJET SW CE

get.wiped-C.TR=2SBJ=PST.DIR.EVID GNRL.DET place

‘Wipe the area where you were cooking [preparing the food].’ (V2.41)
Interestingly, (5.113) is still what I would call a marginal imperfective, because it was rejected when I presented this sentence to the speakers for translation in another session. They said instead I should use the resultative form in (5.114).

So it seems there is a very small number of clear imperfective achievements, showing again that there is a correlation between perfectivity and telicity. Accomplishments, the quasi-telic aspect, follow this pattern also, since there is a majority of perfectives (85% (67/79) of all accomplishments in the descriptions).

Although a high percentage of activities are in the imperfective aspect, this is not the case with inchoative states. Only 8% (3/13) of inchoative states in the descriptions are in the imperfective. Again, I believe this is due to the content of the videos themselves. Another test I was performing in showing the videos was to see if the imperfective of an inchoative state can be used to describe the internal stages of the inchoative process, in the way that English progressives of positional statives can. To this aim, I showed a video of a person standing up slowly. I found that in SENCOTEN, the imperfective could not be used to describe the internal stages of standing up slowly, and instead sentences like the following were used.

I think the first person was used because the video depicted me, and the speakers were telling me what I should say to describe my actions. It also may not be appropriate for me to have included positional statives under inchoative states. In fact, none of Kiyota’s (2008) inchoative states appear in the text or the video descriptions. I include positional statives as inchoative states due to their interpretations with respect to the two grammatical aspects,
since in the perfective they describe entering into a state and in the imperfective they
describe a state. However, they differ from true inchoative states in that their perfectives
cannot also describe the state itself. So in (5.116), the inchoative state can mean ‘be tired’
or ‘get tired’, in (5.116), the positional stative in (5.115) can only mean ‘stand up’.

(5.116) \( \text{get.tired=1SG.SBJ} \)
\( 1 \text{am/got tired.}' \) (Kiyota 2008: 51)

As discussed in §4.2, it may be better to treat positional states and inchoative states as two
distinct situation types.

So it seems that when it comes to achievements, accomplishments, and activities,
at least, there is a correlation between telicity and perfectivity in both discourse types.
Most of the achievements are perfective, despite the fact that I was attempting to elicit
imperfective achievements. A large majority of accomplishments are perfective. Just over
half of the activities are imperfective, despite the fact that less than a third of the overall
verbs were in the imperfective aspect. Due to a lack of clear inchoative states in the text
and descriptions considered here, it is better to leave any consideration of that situation
type for further work. Positional statives appear to differ between the two discourse types
regarding their distribution, but this is perhaps due to the nature of the videos shown.

The correlation between aspect and situation types found in SENČOTEN discourse
probably results from the role of both perfectives and telic predicates in describing
sequences of events and of both imperfectives and atelic predicates in describing
simultaneous or overlapping events. This is discussed in the work of Dry (1981, 1983) and
Dowty (1986).

5.4 Chapter 5 conclusion

This chapter has made two main claims. First, it has claimed that the SENČOTEN
perfective-imperfective distinction is similar to that of other languages. I have followed
Kiyota’s (2008) definition of the imperfective as referring to an interval of time inside the
running time of the situation. This definition is standardly used for imperfectives in the
general theoretical and typological literature (e.g., Comrie 1976, Klein 1994, Kratzer 1998). Kiyota (2008) has shown that the definition is accurate through examples of modification by punctual clauses. I showed that, like imperfectives in other languages, the SENCOTEN imperfective is used with progressive, habitual, and iterative interpretations. Again like imperfectives in other languages, SENCOTEN imperfective is used with stage-level states to refer to an interval of time within the time that the state holds (i.e., a "stative" interpretation) and the progressive use of imperfective is incompatible with punctual events.

The perfective was also found to behave like perfeetives in other languages. Although Kiyota (2008) provides a modified logical formula, rather than the one used by Kratzer (1998), his definition is actually closer to the original one given by Klein (1994). Klein suggests that perfective aspect is used to indicate that the reference time includes all or part of the situation time. Specifically, Kiyota notes that the reference time of a SENCOTEN perfective can include one subevent of the whole event (either the initial or the final subevent). This is shown in the use of perfective aspect with activities and inchoative states, where it views the inception of the activity or state and some of its running time. Again, perfective aspect in SENCOTEN is like perfective in other languages in this respect.

Perfective and imperfective were shown to be similar to other languages in their function as well. I looked through several Northern Straits texts and SENCOTEN video descriptions and found that perfectives were normally used with a foregrounding function and imperfectives with a backgrounding function. One particular grammatical use which parallels that of Russian and some other Slavic languages is the general use of perfective aspect with positive commands and imperfective aspect with negative commands. Both SENCOTEN and Russian have particular contexts in which perfective aspect is used with negative commands and imperfective aspect is used with positive commands. Even these exceptional contexts appear to be almost identical between the two languages.
The second main claim of this chapter is that there is a correlation between telicity and perfectivity in SENCOTEN. First, the strong telic predicates are only marginally accepted in the imperfective aspect by speakers in elicitation. Second, telic predicates are normally translated with past or future tense in clauses presented out of context. Lastly, in Montler's (1986) SENCOTEN text, there is a higher percentage of telic verbs in the perfective aspect than atelic verbs, and there is a higher percentage of atelic verbs in the imperfective aspect than telic verbs. This correlation between telicity and perfectivity has been established in the literature on first and second language acquisition, where it has been shown that both learners and native speakers more frequently use telic-perfective combinations and atelic-imperfective combinations. Situation type distinctions have been found to play a role in English discourse which is parallel to the role of aspect (Dry 1981, 1983; Dowty 1986), where telic situation types are used to represent sequential events and atelic situation types are used to represent events which temporally overlap the event denoted by the prior sentence.

This chapter has followed up on the claims made in previous chapters. It has provided some more evidence that aspect is an inflectional feature on verbs, by showing that verbs of all situation types are able to take the imperfective (though some are rarely used to to infelicitous contexts); while no non-verbs take the imperfective aspect. It complements chapter 4, which looked at the contribution of unaccusativity, aktionsart, and control morphology to situation type. This chapter has looked at the contribution of situation type to grammatical aspect.
**Chapter 6  Conclusion**

This thesis has investigated the interaction of various factors affecting the temporal interpretation of the SENČOTEN clause: aspect, aktionsart, 'control', valence-change, unaccusativity, and in some cases the verb's arguments. I began with observations that certain verbs seemed to be incompatible with the imperfective aspect. This led to the first research question: are there any restrictions on aspect based on predicate class? If so, what is the nature of the class which is incompatible with imperfective aspect? In order to answer this question, it was necessary first to determine what SENČOTEN aspect includes and what types of predicate classes are relevant in the language.

On the basis of previous research on aspect in the world's languages, I took the approach that aspect would be an inflectional feature. In SENČOTEN, verbs in general tend to take one of two forms: a plain form, and a form exhibiting non-concatenative changes. Previous work on SENČOTEN also argued for a perfective-imperfective distinction (Kiyota 2008), in keeping with the general Salish pattern (Kinkade 1996), but the possibilities of a progressive vs. non-progressive distinction or a neutral-imperfective distinction had not been considered. Bar-el (2005) has looked at this in another Salish language, Skwxa7mesh, but the languages clearly differ in their aspectual values, since Skwxa7mesh has three aspects, while SENČOTEN has two. In chapter 5, I provided further evidence for a perfective-imperfective distinction, arguing explicitly against both a progressive or a neutral aspect analysis. Comparison with other languages showed that the SENČOTEN aspect distinction is actually similar to that of other languages with perfective and imperfective.

In previous work, I had argued that there is a three-way aspect distinction in SENČOTEN, between perfective, imperfective, and resultative (Turner 2007). In this thesis, I have argued against including resultative with the other two groups, showing that resultative and other "aspectual" morphology beyond perfective and imperfective such as inchoative and persistent is actually best considered as a separate category. I showed that
these categories are more derivational in nature, and that they are either inside aspect formally and semantically (inchoatives) or are irrelevant to aspect (resultative). I adopted the traditional term *aktionsart* to refer to this class of morphology which affects the event structure of a predicate. In chapter 3, I also provided a detailed discussion of SENCOTEN verb morphology, and proposed to account for the form of perfectives and imperfectives in terms of inflectional classes.

Having determined what to include in aspect and what not to include, I investigated the various ways in which predicates have been classified in Salish languages. I showed in chapter 4 that these classifications line up to a large extent, with morphologically driven classification and semantically driven classification often pinpointing the same groups of predicates. The distinction between nouns, adjectives, and verbs (Montler 2003) was found to parallel the semantic distinction of individual-level predicates and stage-level predicates (Kiyota 2008), with adjectives falling into Kiyota’s class of *homogeneous states* (individual-level stative predicates). In the literature on Salish situation type, unaccusatives are said to be achievements (Bar-el, H. Davis & Matthewson 2005; Kiyota 2008). Here I compared the morphologically/syntactically motivated classes of unaccusative and unergative argued for by Gerdts (1988, 1991, 2006) with Kiyota’s (2008) situation types, and found that they did indeed largely line up, unaccusatives testing as achievements (telic intransitives) and unergatives testing as activities or inchoative states (atelic intransitives). Lastly, I investigated the category of control. Despite the general characterisation found in most descriptive work on Salish, many authors have shown that the ‘control’ distinction is not about agent control. Rather, it appears to directly encode telicity distinctions, where control predicates are weakly telic and non-control predicates are strongly telic (B. Carlson 1996, Watanabe 2003, Bar-el et al. 2005, Kiyota 2008, Jacobs fc). I provided further evidence for this by testing the situation type of control and non-control intransitives (passives and reflexives).

In chapter 5, I investigated the original research question, showing the restrictions on aspect. I found that there are at least three ways in which predicate class affects aspect
use. First, aspect is only relevant to verbs. Nouns, adjectives, and resultatives (derived adjectives) do not reflect a difference in aspect. This is probably a result of the fact that they denote individual-level predicates, which are atemporal, lacking a beginning and an end point. Second, imperfective aspect is infelicitous in describing punctual situations. This incompatibility has been observed in other languages (e.g., Comrie 1976, Wilhelm 2007), and is said to result from the fact that imperfectives view internal stages of a situation while punctual situations have no internal stages (Comrie 1976, Smith 1997). Third, strong telic predicates (predicates which entail culmination) are marginal in the imperfective; that is, they are dispreferred in elicitation contexts and rare in discourse. These are Kiyota’s (2008) class of achievements, and generally contain unaccusatives or non-control verbs. I argued that this results from a general cross-linguistic tendency to group telic predicates with perfective aspect and atelic predicates with imperfective aspect. There is some evidence that this pattern holds generally in SENCOTEN: a frequency count of both a SENCOTEN text and recordings of speakers describing videos found that a strong majority of telic predicates were in the perfective aspect, while the imperfective aspect tended to be used mostly with atelic predicates.

All of the results of this investigation have pointed to ways in which SENCOTEN aspect and predicate classification is like that of other languages (though not necessarily English). SENCOTEN has a perfective-imperfective aspect distinction which fits perfectly with the theoretical models of perfective and imperfective (Klein 1994) and the behaviour of various classes of predicates with aspect follows that of perfective and imperfective in other languages with this distinction. SENCOTEN stage-level states look similar to states in a variety of languages with a perfective-imperfective distinction, where the perfective denotes both the entrance into the state and the state itself (Smith 1997, Bertinetto 2001). The phenomenon of non-culminating accomplishments has been found to exist in several other languages (Koenig & Chief 2008, Tatevosov 2008). Salish languages are of interest in this respect, because they indicate the culminating vs. non-culminating (or strong telic
vs. weak telic) distinction in their morphology; some Austronesian languages also exhibit this behaviour (Dell 1983/1984, Kroeger 1990).

I hope that this thesis has highlighted various areas of future research in Salish predicate classification. Over the years, more finegrained analyses of English event structure have shown further distinctions within the classes proposed by Vendler (1957). Levin & Rappaport Hovav (2005) in particular have shown that different predicate classification tests pick out different components of meaning along which verbs systematically differ. Another research trend has been the critical examination of the application of situation types proposed for English to other languages, particularly those outside Indo-European (Tatevosov 2002; Wilhelm 2003, 2007; Bar-el 2005). I have largely stuck to Kiyota’s (2008) proposed five situation type classes, which are based on English classes proposed by Vendler (1957), Dowty (1979), and Rothstein (2004). In the course of my investigation into aspect, I found that these five classes may not be adequate in capturing the patterns of SENCOTEN predicates. In particular, the behaviour of perfective and imperfective shows that it may be useful to distinguish punctual from non-punctual predicates and to distinguish positional states from emotional states. In addition, I found that Kiyota’s tests for situation type sometimes produced mismatches. The limited control reflexives of unergative verb roots behaved like strong telics with respect to one of the tests (culmination) and like weak telics with respect to another (‘almost’). This suggests that non-culmination and the ‘almost’ test pick out different properties of predicates. Further fine-tuning of Kiyota’s (2008) tests would yield further insight into these distinctions.

Another property of situation type that has long been recognised is the fact that it is affected by more than just the verb (e.g., Vendler 1957, Verkuyl 1972, Dowty 1979, Bach 1981). The affect of arguments and adverbials on situation type classification in SENCOTEN has still not been investigated. I did find some small evidence of an effect with respect to punctual predicates. Punctuality appears to be determined on the basis of the predicate as a whole, and not just the verb. This fits in with Wilhelm’s (2007)
observations that punctuality is a clause-level phenomenon and thus grammatical aspect is sensitive to it.

Lastly, both Kiyota (2008) and I have investigated a very small number of predicates. I have relied heavily on comparisons across the Salish family and in some cases made assumptions that patterns held in other languages hold in SENĆOŦEN, in order to move forward with the investigation. Unfortunately, SENĆOŦEN is spoken by very few people as a native language, and most of these people are elderly. A further investigation of the patterns we have identified in our theses would yield much stronger and more useful insights into the way aspect and predicate classification interact in Salish languages, and language in general.
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