Interpreting Derived Stative Predicates: Evidence from ʔayʔaǰuθəm

by

Bruno Luis de Oliveira Andreotti

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submitted by   Bruno L. O. Andreotti   in partial fulfillment of the requirements for

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in   Linguistics

Examining Committee:

Henry Davis, Linguistics

Co-supervisor

Hotze Rullmann, Linguistics

Co-supervisor

Lisa Matthewson, Linguistics

Supervisory Committee Member

Additional Examiner

Additional Supervisory Committee Members:

Supervisory Committee Member

Supervisory Committee Member

Abstract

This thesis explores the semantic properties of a verb affix analyzed by Watanabe (2003) as marking stative aspect in ʔayʔaǰuθəm. Also known as Comox-Sliammon, ʔayʔaǰuθəm is a critically endangered Central Salish language spoken on the central west coast of British Columbia, Canada.

As Nedjalkov and Jaxontov define them, (1988, p. 6), pure stative readings express "a state without any implication of its origin" (e.g. the village is surrounded by mountains), while resultative readings express "both a state and the preceding action it has resulted from" (e.g. the village is surrounded by soldiers).

Predicates derived by the ʔayʔaǰuθəm stativizer were tested in elicitation with native speakers which was targeted to clarify what kinds of context these predicates can occur in and what readings are possible. It was found that despite being derived from eventive roots, these predicates may be interpreted as pure stative rather than resultative.

A new representation of the affect of stative morphology on an eventive predicate is provided based on this evidence from ʔayʔaǰuθəm to address the analytical paradox that arises from stative predicates, derived from eventive roots, being interpreted as pure states. It is proposed that the different possible readings of a stativized predicate in ʔayʔaǰuθəm arise out of pragmatics, requiring no semantic or syntactic ambiguity and not violating monotonicity. Essentially, the analysis states that derived stative predicates denote the contextually most informative and least superfluous of the states associated with the predicate, evaluated against a set of Questions Under Discussion (Roberts, 1996).

Lay Summary

This research investigates how adjective-like words built on verbs (derived stative predicates) are interpreted in ʔayʔaǰuθəm, a critically endangered Central Salish language spoken on the west coast of British Columbia. Though semantic fieldwork elicitation methods, this thesis investigates the different possible ways these words can be understood in different contexts, contributing to the theoretical understanding of derived stative predicates as well as to the documentation of a critically endangered language.

Preface

This thesis is an original and independent work by the author Bruno L. O. Andreotti. Parts of chapters 3 and 4 were presented in Andreotti, B. (2018, May) *Interpreting derived stative predicates in Comox-Sliammon*. Paper presented at the 10th conference on Semantics of Underrepresented Languages of the Americas. Toronto, ON.

The fieldwork reported herein was conducted under the ethical clearance certificate number H15-01026 of the Behavioural Research Ethical Review Board at UBC to H. Davis.

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List of Symbols and Notations

Symbols Used in Glosses

-	(hyphen) Morpheme boundary	=	(equals sign) Clitic boundary
~	(tilde) Reduplication	.	(period) One-to-many correspondence
\	(backslash) Suprasegmental alternation	[·]	(square brackets) Covert element
<·>	(angled brackets) Infix	√	(square root) Noun or verb root
#	(hash) Rejected form	?	(question mark) Judgement uncertain

Symbols Used Outside Glosses

[·]   (square brackets) Narrow phonetic transcription

/·/   (slash brackets) Broad phonemic transcription

⫽·⫽   (double slash bracket) Morphological breakdown (outside of a gloss)

<·>   (angled brackets) Orthographic representation (outside of a gloss)

C   (as part of a morphophonological form) obstruent

R   (as part of a morphophonological form) resonant

V   (as part of a morphophonological form) vowel

List of Abbreviations

ADJ	Adjective		AI	Active-intransitive
AUT	Autonomous		AUX	Unglossed auxiliary
CAU	Causative		CHAR	Characteristic
CLT	Unglossed clitic		CNJ	Conjunctive subject clitic
CTR	Control transitivizer		DET	Unglossed determiner
DEM	Demonstrative		DIR	Directive transitivizer
ERG	Ergative subject suffix		EXI	Existential
INCH	Inchoativizer		IND	Indicative subject clitic
INTR	Unglossed intransitivizer		LCTR	Limited control transitivizer
MD	Middle-voice		MOD	Unglossed modal
NEG	Negative		OBJ	Transitive object
NMZ	Nominalizer		PASS	Passive voice
OBL	Oblique		P	Plural
PCP	Participle		POS	Possessive
PST	Past tense		PROG	Progressive
RCP	Reciprocal		RFL	Reflexive
S	Singular		STV	Stativizer
TR	Unglossed transitivizer			

Acknowledgements

Chapter 1   Introduction

This thesis presents the results of an investigation into the interpretation of derived stative predicates in ʔayʔaǰuθəm (also known as Comox-Sliammon). *Derived stative predicates* (or *stativized predicates*) are adjective-like linguistic objects which denote states (temporary properties, qualities, or characteristics of an entity) which are built up from atomic linguistic units which denote events (verb roots). Though the investigation focuses on ʔayʔaǰuθəm, the data, discussion, and analysis shed light on the interpretation of derived stative predicates in more widely studied languages like English. Thus, the research question in this thesis is: how are derived stative predicates interpreted in Comox-Sliammon?

The thesis is structured into six chapters, this introduction being the first. Chapter 2 explores the notion of stativity from a formal and empirical perspective cross-linguistically; chapter 3 outlines some of the crucial background about the grammar of ʔayʔaǰuθəm; chapter 4 presents data from elicitation targeted at various properties of predicates derived by the ʔayʔaǰuθəm stativizer; chapter 5 proposes an analysis of this data, and chapter 6 concludes the thesis.

1.1   Language Family Background

The ʔayʔaǰuθəm language is a member of the Central branch of the Salish family of languages spoken on the coast of British Columbia. The language is traditionally spoken by the Comox, Sliammon, Homalco, and Klahoose First Nations.

The Salish languages, also known as Salishian languages, are a family of languages spoken along the northwest coast of the United States and the southwest coast of Canada, as far inland as Montana. The traditional territories of the Salish peoples form a geographically connected area, with the exception of the Tillamook and the Nuxalk (Bella Coola), which form exclaves as the southernmost and northernmost Salish territories respectively. All extant languages in the Salish family are acutely endangered.

The family divides into five branches: Tillamook, Bella Coola, Tsamosan, Interior Salish, and Central Salish. The non-indigenous names of these languages are given below, each branch

organised from northernmost to southernmost (for traditional names[1] see Czaykowska-Higgins & Kinkade, 1998):

- The Bella Coola branch consists of only the Bella Coola language;
- None of the languages in the Tsamosan branch are still spoken, but the family consisted of four members:
    - Quinault
    - Lower Chehalis
    - Upper Chehalis
    - Cowlitz
- The Interior Salish branch is the second biggest branch of the Salish family by number of languages, and the biggest by number of remaining speakers. It consists of:
    - Shuswap
    - Lillooet
    - Thompson
    - Colville-Okanagan
    - Columbian
    - Spokane-Kalispel-Flathead
    - Coeur d'Alene
- The Central Salish branch is the biggest branch of the Salish family by number of languages. It consists of:
    - Comox-Sliammon (ʔayʔaǰuθəm)
    - Sechelt
    - Pentlatch
    - Squamish
    - Halkomelem
    - Nooksack
    - Northern Straits
    - Klallam
    - Lushootseed (a.k.a. Pudget Sound Salish)

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[1] Several difficulties arise with presenting traditional names of these languages, as it is often the case that autonymous names exist only for dialects, and/or orthographic representations of the name(s) vary. The name "ʔayʔaǰuθəm" is used here for the language named Comox-Sliammon by researchers due to it being a fairly widely accepted name among the communities.

- o Twana
- The Tillamook branch contains of only the Tillamook language, which is no longer spoken.

1.2 Language Vitality

As per the UNESCO (2003) language vitality classification, ʔayʔaǰuθəm is severely endangered – as of 2014, there were 36 reported fluent speakers and 705 semi-speakers (FPCC, 2014, p. 25). These represent 1.9% and 37.2% of the reported population (p. 45). Every known native speaker is a member of the grandparent generation, indicating severely disrupted intergenerational transmission, which is a direct result of residential schools and other colonial practices.

Though ʔayʔaǰuθəm is still used by some native speakers as a primary means of communication in day-to-day conversation, its domains of use are otherwise limited. Several younger community members are known to understand the language better than they are able to speak it, though it is unclear if or how well the domains of use of the language are expanding. Various efforts are underway to protect ʔayʔaǰuθəm and it has been taught in nearby public schools since the early 1990s (FPCC, 2014, p. 45).

The language is fairly well documented relative to other languages with similar vitality, though several disagreements remain about how the language should be written. Nevertheless, the orthography has stabilized to the point where written materials exist, and children are exposed to them in school.

Attitudes towards the language are generally positive both within the communities and outside; preservation and revitalization of ʔayʔaǰuθəm is supported legally, strategically, and financially by provincial legislation in British Columbia. However, no federal legislation exists for Canada as a whole, and the language does not share equal official status with English and French.

1.3 Glossing Convention and Other Notations

The format of the data presented in this thesis follows a modified version of the Leipzig Glossing Rules (Comrie, Haspelmath, & Bickel, 2008), using the abbreviations listed in the introductory section. Each example takes the following form:

(i)   *Limited control with progressive aspect*   ← Title (if needed)

čʼičʼχʊxʷan tə ǰɛnxʷ   ← Orthography

čʼə~√čʼχ-əxʷ-an   tə=√ǰánxʷ   ← Morphemic breakdown

PROG~get.cooked-LCTR[3OBJ]-1SG.ERG   DET=fish   ← Gloss

"I have been cooking (frying) fish."   ← English translation

Context: frying many pieces of fish, with some already fried.   ← Context (if available)

    (Watanabe, 2003, pp. 208-9; glossing adapted)   ← Citation (if needed)

Alternatively, some examples are formatted so as to illustrate patterns in word-formation operations, containing multiple morphemic breakdowns and translations:

(ii) *Possessive infix rejected in roots with verb translations*   ← Title

(Watanabe, 2003, p. 73; glossing adapted, emphasis added)   ← Citation (if needed)

Unmarked Root   **Root<POS>**   ← Gloss for pattern

√ʔím-aš   # √ʔím-a<**ha**>š   ← Morphemic breakdown

"walk"   ← English translation

√ǰə́ƛ̓   # √ǰí<**hi**>ƛ̓   ← Morphemic breakdown

"run"   ← English translation

√hás -əm   # √hás-a<**ha**>m   ← Morphemic breakdown

"to sneeze"   ← English translation

The title may contain information about what the example illustrates, what language it is in, etc. In examples of type (i), it is omitted when this information is given by the surrounding prose, in which case the orthographic representation occupies the same line as the example number. It is always given with examples of type (ii).

The orthographic representation of the example and its morphemic breakdown are given separately, as the latter is not as accessible to speakers of the language as the former. Many speakers of the language have adopted an orthography derived from the Americanist Phonetic Alphabet (APA), though this differs from the APA used in the morphemic breakdown (as it is used by Salish linguists) mainly in that the vowels are represented phonetically rather than phonemically. The orthography represents vowels narrowly using a broad range of symbols, despite the fact that ʔayʔaǰuθəm has only four phonemic vowels: /a/, /i/, /u/, and /ə/

(Watanabe, 2003, pp. 11-2). The APA and the IPA more familiar to most linguists differ in some symbols:

APA	IPA	Phonetic description
ƛ̓	t͡ɬ	Voiceless alveolar lateral affricate
š	ʃ	Voiceless post-alveolar fricative
č	t͡ʃ	Voiceless post-alveolar affricate
ǰ	d͡ʒ	Voiced post-alveolar affricate
y	j	Voiced palatal approximant

Additionally, stress and associated suprasegmental phenomena are marked with an acute accent on a vowel, e.g. á. The symbol ’ on consonants (e.g. ẃ, q̓) represents glottalization rather than ejective airflow.

The morphemic breakdown explicates the morphological structure of a word, making explicit where morpheme boundaries lie and what kinds of concatenation are used. It follows the Salish literature in using APA to represent only the four phonemic vowels. Morphophonological processes (such as epenthesis and deletion) are not reversed.

Translations are only given for grammatical examples. Citations are given for all examples, except those obtained in original elicitation. For these original examples, speaker initials are given instead, as in (iii).

(iii)   pənɛt tə χaǰɩys, pɛyot nɛʔoɬ tɛʔɛ

√pə́n-ít   tə=√χáǰəys,   páya=ʔut   √níʔ-uɬ   tá ʔa

get.buried-STV   DET=rock,   always=CLT   be.there-PST   DEM

"The rock is buried / underground, it has always been there."

Context: Describing a picture of a rock underground, explained to have always been there.

(JF; MW; MH)

1.4   Methodology

All data presented in this thesis that is not attributed to another work was obtained in regular one- or two-hour interview sessions with 2 fluent speakers of ʔayʔaǰuθəm who have been

working with language research for two years, or in one of several less frequent interviews with elders from the four communities. The research process involved three recurring stages:

1. Design targeted elicitation materials to test generalizations made about stative and resultative aspect in the literature and in prior observations, as well as to test predictions about meaning which follow from syntactic composition. These materials include storyboards and cartoons (using the online tool Pixton) which the consultant can describe using natural language (Burton & Matthewson, 2015), constructed sentences in ʔayʔaǰuθəm for consultants to accept or reject, and sentences in English for consultants to translate (Matthewson, 2004b).

2. Present these materials to consultants in the form of recorded semi-structured interviews (Brinkmann, 2014), documenting language produced throughout, acceptability judgements of given sentences in ʔayʔaǰuθəm, and translations of given sentences in English.

3. Review hypotheses and generalizations considering newly obtained data.

The materials constructed before an interview varied between elaborate contexts with associated pictures and sentences in both English and ʔayʔaǰuθəm, to simple word lists and paradigms. An example of the former would be that used for example (1) (this example is discussed further in **§4.2.2**).

(1)   t́oť$^{\theta}$ɛt lamayɛ, xʷukʷt taḿ ʔaǰɛms, xʷaʔ yɪṕas

    √t́út̓$^{\theta}$-ít   √lámaya   xʷúkʷt táḿ √ʔáǰ-im=s   xʷaʔ

    get.shot-STV   bottle   none   what get.changed-MD=3POS   NEG

     √yə́ṕ=as

     get.broken-STV

    "(Though) the bottle is **shot**, nothing changed about it, it did not break."

    Context: The bottle was shot, but the bullet just bounced off without even leaving a scratch because it is made of really strong glass.

     (JF)

Before the interview where a grammaticality judgement was to be obtained for example (1), figure 2 was prepared as part of a context to be presented. The picture illustrates a bottle being shot but having the bullet bounce off, not being broken by it. Alongside the picture, a "guess" sentence was prepared based on existing knowledge of the language, to be tested for

acceptability in the context presented. This is given in (2), where differences from the final example are bolded (the ◇ symbol indicates that this is not an example of language produced by the speakers, but a prompt produced by the investigator).

(2)   *Preliminary "guessed" example*

    ◇ t̓ot̓ᶿɛt tə lamayɛ, xʷaʔ yıṗɛt

    √t̓út̓ᶿ-ít   **tə**=√lámaya,   xʷaʔ   √yə́ṗ-**it**

    get.shot-STV   **DET**=bottle,   NEG   get.broken-**STV**

    "The bottle is shot, it did not break."

    Context: The bottle was shot, but the bullet just bounced off without even leaving a scratch because it is made of really strong glass.
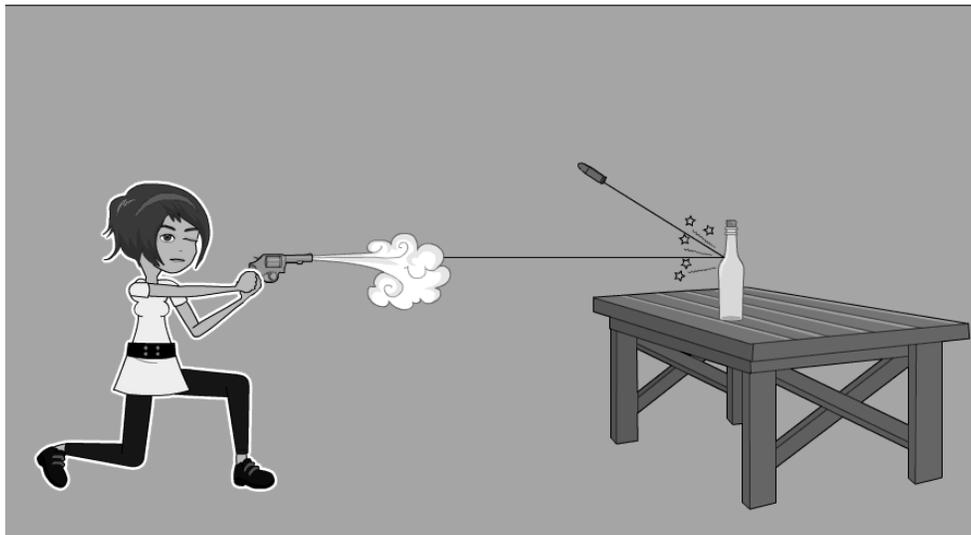
Figure 1: Testing (2) for a post-stative reading

The way the interview proceeds illustrates one of the difficulties testing judgements around specific constructions using this method; consultants often change the sentence, occasionally responding to their modified sentence rather than the one being tested, making it unclear if the judgement of the targeted form is positive or negative. Below is a snippet of the interview, with the spontaneous change bolded.

Interviewer: What if Gloria had shot the bottle and hit it, but the glass was so strong that the bullet just bounced off and didn't even scratch it? Can we still say that *t̓ot̓ᶿɛt tə lɛmɛyɛ,* even though *xʷaʔ yıṗɛt*?

Consultant: *hɛw X̌oqʷmot lɛmɛyɛ.* ["the bottle is very hard"] ***tot̓ᶿuxʷas,*** *xʷukʷt tam̓ ʔaǰɛms*
["**she shot it** and nothing changed about it"]

Interviewer: Yeah, must be made out of really good glass. But is it *tot̓ᶿɛt* here even though
xʷaʔ yɪp̓ʷɛt ["it is not broken"]?

Consultant: Yeah, she hit it, even though *xʷukʷt tam̓ ʔaǰɛms, xʷaʔ yɪp̓ɛt.* Yeah I'd say it's
tot̓ᶿɛt. It's just another way to say it.

Because the consultant repeated the stativized form, this was recorded as a clear positive
judgement in the given context, even though the example was not repeated back as a whole
continuous unit. The example was also modified to include *xʷukʷt tam̓ ʔaǰɛms* "nothing changed
about it" as it was given in the same context.

This method of elicitation allows a large amount of contextual information to be conveyed to
the consultants in a short amount of time, allowing investigators to test judgements of specific
constructions in rare and elaborately structured situations. However, there is a great potential
for information to be misinterpreted, but this is a problem for most methods of presenting large
amounts of information. Furthermore, preparation for this method of elicitation requires more
time than other methods, potentially making it impractical depending on the context and time
available for field work. Another possible point of contention is the use of English to present
these contexts; see Matthewson (2004b, pp. 394-9) for a discussion and defense of the use of
metalanguage in presenting contexts.

On the opposite end of the spectrum of complexity, paradigmatic data such as that presented in
(3) was obtained in a much less nuanced manner; each word was presented without a context,
and the consultant was asked whether it is a "real word".

(3) *Inchoativizer rejected on eventive roots*

Unmarked Root	Root~INCH	PROG~Root
√q̓ətxʷ	# √q̓ə́t<~ət>xʷ	q̓ə́~√q̓ətxʷ
"get burnt"		"be getting burnt"

8

√ƛ̓ə́pxʷ   # √ƛ̓ə́p<~əp>xʷ   ƛ̓ə́~√ƛ̓əpxʷ

"get broken (in two)"   "be getting broken (in two)"

Interviewer: Do you recognize *q̓ətxʷ*?

Consultant: Yeah, like *q̓ətxʷ šə qʷɛɣχ*, the wood got burnt up.

Interviewer: Yeah! What about *q̓ətətxʷ*? Is that a similar word?

Consultant: [frowns] No. That's not a word.

Interviewer: OK. What about *q̓əq̓ətxʷ*?

Consultant: Yeah, that's when something's burning.

Interviewer: What about *ƛ̓əpxʷ*, do you recognize it?

…

This method of elicitation is much less informative than more nuanced alternatives, but it yields a large amount of data in a short amount of time and it suffices to show patterns of grammaticality and composition among subsets of the lexicon. However, it may mistakenly yield misjudgements for forms that require an elaborate context to be acceptable and may cause consultants to be primed and misjudge examples which are lexical exceptions the pattern being investigated.

Most of the elicitation conducted in this investigation falls somewhere between these two extreme examples in terms of complexity, depending on the kind of data needed. For instance, sometimes larger sentences were presented without an elaborately constructed context, other times pictures and contexts were presented to the consultant without a sentence. The specific method employed to obtain data is discussed further wherever pertinent.

1.5   Formal Program

A Neo-Davidsonian model-theoretic framework of intensional event semantics (Davidson, 1967; Parsons, 1990) is employed throughout this thesis. For the sake of clarity and consistency, certain assumptions about it are explicated in this section. Formalisms from the

literature which are not constructed in this framework are adapted into this system with the greatest fidelity possible.

As is standard for a (Neo-)Davidsonian theory, the model is a quadruple $M = \langle E, V, I, [\![\cdot]\!]\rangle$, where E is the domain of entities (structured as a Boolean lattice as in Link, 1983), V is the domain of events, and I is the domain of times (both structured as join semilattices, formulated and related as in Krifka, 1998). The interpretation function $[\![\cdot]\!]$ maps segments of natural language to their extensions in the model, expressed as formulas in a simply typed lambda calculus (Church, 1940; see also Heim & Kratzer, 1998) with five base types $B = \{e, v, i, s, t\}$ – (e)ntities, e(v)entualities, and t(i)mes corresponding to each domain of the model, as well as po(s)sible worlds and (t)ruth values corresponding to $\{0,1\}$. The type constructor is $\langle \cdot, \cdot \rangle$, such that $\langle \alpha, \beta \rangle$ refers to functions from type α to type β. Natural language segments are interpreted against a context c (Kaplan, 1999), an index g (Heim, 1988), a world w (von Fintel & Heim, 2011), such that $[\![\cdot]\!]^{c,g,w}$ returns the extension of a language segment given a context-index-world triple $\langle c, g, w \rangle$.

Typically, the variables x, y, z are reserved for entities $\in E$, the variable e (to various prime levels) represents an eventuality in V, t represents a time in I, and w represents a possible world. Predicates are represented by P, Q, R and their function type is given as a subscript as they are introduced.

Following Kratzer (1996; 2005), a closer relationship between a root and its internal argument is assumed, requiring external arguments such as agents to be introduced in the syntax. This obsolesces the thematic role of "patient/theme".

The ontological nature of events remains somewhat vague in this approach, but the practice of assuming a distinction between states and events as different kinds of eventualities is not adopted, as stativity and eventivity are here treated as properties of predicates (see **§3.1** for a formal definition of both properties).

To avoid the theoretical and philosophical pitfalls of the Problem of Perception and Naïve Realism (see Crane & French, 2017 and references therein), the model is to be understood as a representation of *psychological* ontology; a way "to capture certain properties of the way how we see the world, not as attempts to describe the world how it is" (Krifka, 1998, p. 2).

Chapter 2   Stativity

Stativity is a broad property of predicates which can be intuitively characterized as referring to eventualities which are unchanging, typically requiring no expenditure of energy to maintain. Holisky (1978) notes two ways to define aspectual properties such as stativity: the first is to define them language-specifically using morphosyntactic tests, and the second is to define them as universal notions which the grammar of a language must account for and consequently reflect. This thesis operates within the latter approach, using the formal logic of model theory to represent the universal notion of stativity.

Most languages have adjectives (or adjective-like) words which inherently refer to unchanging eventualities in this way; words like *cold* or *happy*, which describe things that are stable and consistent, at least given an interval of time. Many languages also have verbs which exhibit stativity, or derived forms which exhibit stativity. In this chapter, some of the literature on stativity in formal semantics is explored, and the properties typically associated with stativity are illustrated using examples from English.

Following Holisky (1978), Kroeber (1988), and Watanabe (2003), the diagnostic for stativity in ʔayʔaǰuθəm consists of the three semantic criteria: compatibility with auxiliaries of duration and incompatibility with auxiliaries of rate. These criteria are justified in section 2.1.

Additionally, a contrast is presented between *pure stative* predicates and *resultative* predicates, which are formally stative but entail the event of their inception. This contrast is presented in section 2.2, alongside the analytical paradox that arises from it.

Finally, section 2.3 discusses a third possible but very marginal reading of *post*-stative predicates, which express the state of some event having culminated in the past.

2.1   Stative Predicates are Durative and Lack Processes

Stativity is here defined as a property of predicates which are *durative* and possess a *subinterval property*. As it is difficult to test a subinterval property in elicitation, a *lack of a process* is used as an effective proxy. These properties are defined model-theoretically in this section.

Durativity, in short, is a property of predicates over eventualities that can be true of more than a moment of time. This property contrasts with that of *punctuality*, which is true of predicates

which may only take place momentarily (Comrie, 1976, p. 42). In Vendler's (1957) classification, durativity is a property of states, activity, and accomplishment predicates. These predicates have a duration that can be modified by adverbial terms; accomplishments can be modified by *in*-adverbial phrases, while activities and states are modified by *for*-adverbial phrases.

(4)   Accomplishment: He drew a circle *in* twenty seconds.

        ? He drew a circle *for* twenty seconds.

    Activities: He pushed a cart *for* twenty seconds.

        # He pushed a cart *in* twenty seconds.

    States: I loved her *for* three years.

        # I loved her *in* three years.

    Achievements: I discovered the answer in three minutes.[2]

        # I discovered the answer for three minutes/hours/years.

Durativity can be operatively defined here as follows: a predicate is *durative* if and only if all eventualities in its extension either have a proper temporal part or are themselves a proper temporal part of a larger eventuality which is also in the extension of the predicate. A "temporal part" here means a subeventuality that occurs for a subset of the runtime of the parent eventuality, but takes up the same space as the parent eventuality for its entire duration.

(5) $\forall P_{\langle v,t \rangle}[\text{DURATIVE}(P) \leftrightarrow \forall e \left[P(e) \rightarrow \exists e' \left[e' \sqsubset e \vee [e \sqsubset e' \wedge P(e')] \right] \right]$

    A predicate P over Davidsonian eventualities is *durative* if and if for every eventuality e in the extension of P, there exists an e' that is either a proper temporal part of e, or a proper temporal superpart of e which is itself in the extension of P.[3]

Among durative predicates, there are some which possess *processes* and some which do not. Vendler (1957) defines a process as "successive phases following one another in time" (p. 144), which are associated with the extension of a predicate. A lack of a process distinguishes states (=stative predicates) from the similarly durative activities and accomplishments; in the schema

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[2] This sentence requires coercion into an accomplishment reading of *discover the answer*, interpreting the preparatory phase of *searching for the answer* as part of the process of *discovering* it.
[3] Note that the bracketing in (5) requires e' to be in the extension of P only in the case that it is a proper temporal *superpart* of P; this is because some durative predicates (namely accomplishments in languages like English) are both durative and telic, being thus *quantized*, having proper temporal parts which do not instantiate the predicate (Krifka, 1992; 1998).

of Pustejovsky (1991)[4], a state possesses only a single phase P, while a process possesses a sequence of phases $\langle P_n \rangle$.

(6)   *Adapted event schemata presented in Pustejovsky (1991)*

State: a single predicate over eventualities that is not evaluated against any other

Process: a sequence of predicates over eventualities sequentially identifying phases of the same collective expression

State
|
P

Process

$P_1, P_2, ... P_n$

If an eventuality falls under the extension of a stative predicate, all of its subeventualities instantiate the same phase. The subeventualities of an instantiation of a process predicate, on the other hand, distribute themselves between the various phases of its process. For example, the eventive predicate *run* entails a sequential structure among the subeventualities of a running eventuality which involves alternating movements of a runner's legs, which are not themselves complete *run* events. Process predicates are thus *granular*; sufficiently small temporal parts of the eventualities in the extensions of process predicates do not fall into their extensions (Dowty, 1986).

Stative predicates such as *be happy*, on the other hand, entail no such structure; all subeventualities satisfy the same phase indistinguishably (Comrie, 1976). Stative predicates thus obey a *subinterval property* (Dowty, 1986; Smith, 1997; Jackson, 2005); a stative predicate must be true of every temporal part of every eventuality in its extension.

However, it is not easy to test a subinterval property directly in elicitation. As a proxy, the presence of a process can be tested, as processes and states are complementary subsets of durative predicates. Holisky (1978) provides a diagnostic for a process (which she calls "on-goingness") which has been employed to great effect by Kroeber (1988) and Watanabe (2003) in ʔayʔaǰuθəm. Holisky demonstrates a difference in the distribution of adverbials that modify the process of a predicate, such as adverbials modifying rate, between durative predicates which are "on-going" (processes) and predicates which are "not on-going" (states) in Georgian

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[4] Note that Pustejovsky (1991) uses event variables to represent full predicates in his schemata. This practice is not followed here; the schemata in (53) are adapted into the Neo-Davidsonian framework.

(and English). She shows that adverbials modifying the process of a predicate are rejected with stative predicates, as illustrated in Holisky's English examples in (7).

(7) *Adverbial restrictions with process and stative predicates*
     (Holisky, 1978, pp. 145-6)

Process predicates	Stative predicates
He got cold suddenly.	? He's cold suddenly.[5]
I'll hang the picture slowly.	# The picture hangs slowly.

The operative formal definition of stativity, then, is as follows: a predicate is *stative* if and only if it is durative and every part of every eventuality which falls under its extension also falls under its extension (stative predicates possess the subinterval property; Dowty, 1986). This is stated formally in (8).

(8) $\forall P \left[\text{STATIVE}(P) \leftrightarrow \text{DURATIVE}(P) \land \forall e \left[P(e) \rightarrow \forall e'[e' \sqsubseteq e \rightarrow P(e')] \right] \right]$

A predicate P over Davidsonian eventualities is *stative* if and only if it is durative, and for every eventuality e in the extension of P, every e' which is a temporal part of e is also in the extension of P.

The tests for durativity (given by the compatibility with adverbials of duration) and lack of a process (given by the incompatibility with adverbials of rate) thus form a robust diagnostic for stativity.

Eventivity can be operatively defined similarly as follows: a predicate is *eventive* if and only if each eventuality in its extension either contains a proper part which does not fall under the extension of the predicate (eventive predicates are granular because they have processes) or has no proper parts at all (achievements are also eventive). This is stated in the model-theoretic language in (9).

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[5] This is acceptable if the predicate is coerced into an inchoative reading, synonymous with its process-denoting counterpart. This coercion is not available in Georgian, nor does it seem to be available in ʔayʔaǰuθəm. However, see **§3.2.2** for a discussion on inchoative states in Squamish (Bar-el, 2005).

(9)　$\forall P \Big[\text{EVENTIVE}(P) \leftrightarrow \forall e \big[P(e) \rightarrow \exists e'[e' \sqsubset e \wedge \neg P(e')] \vee \nexists e'[e' \sqsubset e] \big] \Big]$

A predicate P over Davidsonian eventualities is *eventive* if and only if for every
eventuality e in the extension of P, there exists an e' that is a proper temporal part of e
which does *not* instantiate P, or e has no proper temporal parts.

Although stativity and eventitvity are mutually exclusive properties of predicates, certain
predicates such as *surround the village* are ambiguous (they have both stative and eventive
readings; e.g. *the woods surround the village* vs. *the soldiers surround the village*).[6] As a result,
these predicates are neither stative nor eventive (at least by default), as they do not satisfy the
conditions specified for either property. These predicates are discussed further in **§2.2**.

2.2　Pure vs. Resultative Stativity, and Monotonicity

In exploring the typology of stative predicates, Nedjalkov and Jaxontov (1988) draw a
distinction between two kinds of stativity: *pure stative* predicates express "a state without any
implication of its origin" (e.g. the village is surrounded by woods), while *resultative* predicates
express "both a state and the preceding action it has resulted from" (p. 6). This section
illustrates this distinction using examples from English.

The distinction is illustrated in the examples in (10), where the adjectival participles in the
resultative column entail the predicates in the pure stative column while additionally entailing
the existence of an event of their origin.

(10)　*Two kinds of stativity: pure stativity and resultativity*

Pure stative predicates	Resultative predicates
be standing	be built
be unconscious	be passed out
be in love	be enamoured
be molten	be melted

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[6] It could be the case that such predicates have different underlying derivational structures (this analysis
is not pusued here). E.g.

[$_{VP}$ the woods [$_V$ surround$_{\text{state}}$ [the village]]]

vs.

[$_{vP}$ the soldiers [$_{v'}$ CAUSE [$_{VP}$ the soldiers [$_V$ surround$_{\text{state}}$ [the village]]]]]

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This contrast occurs predictably between certain adjectives and the adjectival participles of their (inchoativized) deadjectival verbs.

(11) *Adjectives and the participles of their deadjectival verbs*

Pure stative adjectives	Resultative participles
be red	be reddened
be dark	be darkened
be awake	be awoken
be fat	be fattened

Relatedly, this distinction is also easy to see in the English roots which are ambiguous between verbs and adjectives. A small subset of these roots is given in (59), where the contrast between the adjectival participle and the adjective illustrates the difference between resultative predicates (participles) and pure stative predicates (adjectives).

(12) *Verb-adjective ambiguous roots in English*

Verbs	Pure stative adjective	Resultative participle
(to) open	be open	be opened
(to) free	be free	be freed
(to) empty	be empty	be emptied
(to) complete	be complete	be completed

Strikingly, the adjectival participles derived from many eventive verbs are lexically *ambiguous* between pure stative or resultative readings given appropriate contexts. This is not entirely surprising for the participles of verbs which exhibit a stative-eventive ambiguity, such as spatial-relational verbs like *surround*, *obstruct*, *tether*, *hide*, etc.

(13) *Verbs with stative-eventive ambiguity forming pure stative participles*

	Eventive uses	Pure stative uses	Resultative pcps.	Pure stative pcps.
(a)	The soldiers *surrounded* the village.	The woods *surround* the village.	The village *is surrounded* by soldiers.	The village *is surrounded* by woods.

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(b)	We will *obstruct* the road with our protest.	The tree *obstructs* my view of the landscape.	The road *is obstructed* by protests.	My view *is obstructed* by the tree.
(c)	We *attached* the boat to the dock.	The stem *attaches* the fruit to the tree.	The boat *is attached* to the dock.	The fruit is *attached* to the tree.
(d)	I *hid* the presents in the closet.	The mountains *hide* the small village.	The presents *are hidden* in the closet.	The village *is hidden* by mountains.

However, stative-resultative ambiguity is not restricted to the participles of these spatial verbs. They are systematically available with unambiguously eventive verbs in appropriate contexts; counterexamples are exceptions rather than the rule. Some examples of such verbs with clearly pure stative participles are given in (14).

(14) *Unambiguously eventive verbs forming pure stative participles*

	Eventive uses	**No pure stative uses**	**Resultative pcps.**	**Pure stative pcps.**
(a)	The lake *froze* in the winter*.*	**#** The cold *freezes* the lake.	The lake *is frozen* again.	Siberia is a *frozen* wasteland.
(b)	I *broke* the radio when I tried to move it.	**#** The faulty diode *breaks* the radio.	The radio *is broken*, it stopped working when I moved it.	The radio was already *broken* when I bought it.
(c)	I *organised* my room yesterday.	**??** The shelves *organise* my room.	The files *are organised* alphabetically.	The carbon atoms *are organised* into lattices.
(d)	He *tore* his jeans yesterday.	**#** The hole *tears* his jeans.	My jeans *are torn* from crawling around.	Those jeans are made already *torn*.

These examples are difficult to analyze because they go against the wisdom that syntactic composition obeys *monotonicity*. Koontz-Garboden (2007) made explicit a hypothesis that had been implicit in compositional semantics since its inception, namely that **"word formation operations do not remove operators from lexical-semantic representations (=conceptual**

structure)". This is the *monotonicity hypothesis*. It can be stated equivalently in Pustejovsky's (1991) framework of lexical verb semantics as "word formation operations do not remove *phases* from lexical-semantic representations".

Koontz-Garboden (2007) illustrates this with an example from Quechua, which he supplements by illustrating the decomposed structure of the predicates using the aspectual operators from Dowty (1979), given in example (15).

(15) *Monotonicity in Quechua*
      (Weber, 1989; Koontz-Garboden, 2007)

hatun	hatun-ya:	hatun-ya:-chi
big	become big	cause to become big
[big]	[BECOME[big]]	[CAUSE[BECOME[big]]]

Each derivational morpheme adds an operator to the conceptual structure. What is impossible given the hypothesis, then, is the existence of derivational operations as in the hypothetical language Anti-Quechua in example (16), which remove aspectual operators.

(16) *Hypothetically non-monotonic "Anti-Quechua"*

hatun	hatun-bung	hatun-bung-bang
cause to become big	become big	big
[CAUSE[BECOME[big]]]	[BECOME[big]]	[big]

The problem that the pure stative readings of stativized eventive roots raise in any language where they occur is that they seem to involve precisely the kind of composition that the monotonicity hypothesis deems impossible. **Pure stative readings of derived stative predicates built from eventive roots require information to be *removed* from the lexical-semantic representation** at a level of the derivation where it should not be accessible.

Within this event schema, eventive verb roots would have an implicit BECOME operator in their conceptual structure; e.g. *the door closed* means something along the lines of *the door became closed*, as in example (17).

(17) the door closed ≈ the door became closed
      [close$_{event}$ [the door]] = [BECOME[closed$_{state}$ [the door]]]

If the stativizer is a word formation operation, it must *remove* the BECOME operator to obtain a pure stative reading of the predicate, thereby *violating monotonicity*. This is illustrated in (18).

(18)   the door closed + STV = the door is closed
       [BECOME[closed$_{state}$ [the door]]] + STV = [closed$_{state}$ [the door]]

2.3   Post-Stative Predicates

A related third possible reading of a stativized predicate is as a post-state.[7] A post-state is the state of some event having culminated: "For every event *e* that culminates, there is a corresponding state that holds forever after. This is the state of *e*'s having culminated" (Parsons, 1990, p. 209). All stativized predicates can receive post-stative readings, but this usually only obtains as a last resort, since it is rarely (if ever) more informative than a simple past tense or present perfect aspect.

Post-stative readings are possible even when the state typically described by the stativized predicate no longer holds. In English, for instance, a sentence like "the building is evacuated" typically entails that the building in question is empty. However, a possible marginal reading of it does not: a police officer could say it to their supervisor to report a successful fire drill even after the residents have moved back in (Kratzer, 2001, p. 11).[8]

Post-stative readings usually require a kind of pragmatic licensing which is not entirely understood, but seems to relate to recency, such as in job-done contexts (Kratzer, 2001). Even in these cases, the perfect aspect is often used instead of a direct predication on the adjectival participle; this is shown in the synonymy of the direct predication on the stativized predicate in (19) and corresponding perfect aspect forms in (20).

(19)   The fence is **painted**, the lawn is **mowed**, the hedges are **trimmed**; time to relax.

(20)   The fence **has been painted**, the lawn **has been mowed**, and the hedges **have been trimmed**.
       Time to relax.

---

[7] Some authors call the post-state a *resultant state*, but this term is not used here as it is easy to confuse with the very different notion of a resultative state.
[8] Native speakers of several varieties of English found this example unacceptable or extremely marginal as a post-stative predicate. This is not entirely unexpected given that they are extremely rare, and their pragmatics are not well understood.

2.4 Existing Monotonicity-Preserving Analyses

In this section, two existing analyses of the pure stative-resultative alternation of stativized predicates which preserve monotonicity are explored. Analyses which do not preserve monotonicity (e.g. Dubinsky & Simango, 1996) are not considered, as they are not compatible with the present program.

2.4.1 Lexically Specified Target States

One approach involves lexically specifying target states in the lexical entry of an eventive verb root. Kratzer (2001) posits that the target state of a lexical verb root is accessible to the compositional semantics by constructing verb roots to contain a separate argument for a target state. The formula in (21) shows the denotation of a verb root, where *pump* is the eventive part of the predicate, *inflated* is its lexically associated target state, such that they are related by a CAUSE relation.[9]

(21)   Lexical specification of the target state of eventive verb *pump* (Kratzer ,2001)[10]

$$\lambda x \lambda e \lambda e'[\text{pump}(x, e') \wedge \text{inflated}(x, e) \wedge \text{CAUSE}(e, e')]$$

It is possible to simply existentially close the originating event of a predicate and assert a result state, yielding the originating event entailment of resultative stative predicates. The formula in (22) gives Kratzer's analysis of an adjectival passive constructed at the phrasal level, and (24) gives her analysis of an adjectival passive constructed lexically (adapted into the framework employed here). She gives the phrasal and lexical constructions as two possible ways to construct the predicate rather than to account for some empirical difference.

(22)   *Adapted phrasal stativization of* pump up the boat *in Kratzer (2001)*

Stem+obj: $\lambda e \lambda e'[\text{pump}(\llbracket \text{the boat} \rrbracket, e') \wedge \text{inflated}(\llbracket \text{the boat} \rrbracket, e) \wedge \text{CAUSE}(e', e)]$

Stativizer: $\lambda P_{\langle v, \langle v, t \rangle \rangle} \lambda e \exists e'[P(e, e')]$

Output: $\lambda e \exists e'[\text{pump}(\llbracket \text{the boat} \rrbracket, e') \wedge \text{inflated}(\llbracket \text{the boat} \rrbracket, e) \wedge \text{CAUSE}(e', e)]$

---

[9] This relation is left deliberately vague here, as an exploration of the conceptual nature of causality is far beyond the scope of thius thesis

[10] Note that Kratzer (2001) treats stativity as a property of eventualities rather than predicates and uses a CAUSE relation between events; these practices are not followed here, but her analysis is adapted into the present program with no apparent ill effect.

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For the lexical case, Kratzer assumes an operation called *Function Composition*, which basically lets Function Application (FA) "skip" a term by abstracting it over the resulting expression.

(23) *Function Composition (FC)*

$$\lambda a \lambda b[f(a,b)] \cdot \lambda P \lambda b[P(b)] = \lambda a(\lambda b[f(a,b)] \cdot \lambda P \lambda b[P(b)])$$

FA Compatible

FA

Term "skipped"

(24) *Adapted lexical stativization of* pump *in Kratzer (2001)*

Stem: $\lambda x \lambda e \lambda e'[\text{pump}(x,e') \wedge \text{inflated}(x,e) \wedge \text{CAUSE}(e',e)]$

Stativizer: $\lambda P_{\langle v,\langle v,t\rangle\rangle} \lambda e \exists e'[P(e,e')]$

FC: $\lambda x \left(\lambda P_{\langle v,\langle v,t\rangle\rangle} \lambda e \exists e'[P(e,e')]\right)(\lambda e \lambda e'[\text{pump}(x,e') \wedge \text{inflated}(x,e) \wedge \text{CAUSE}(e',e)])$

Output: $= \lambda x \lambda e \exists e'[\text{pump}(x,e') \wedge \text{inflated}(x,e) \wedge \text{CAUSE}(e',e)]$

Pure stative participles, on the other hand, are more difficult to analyse. Kratzer addresses the case of pure stative participles built from verbs exhibiting stative-eventive ambiguity like those in (13) by positing that their "Davidsonian argument has to be able to range over events (proper) as well as states" (p. 9). In the present framework, this is equivalent to saying that these verbs are neither eventive nor stative. Kratzer does not explicate the computation of these predicates, but an ambiguous verb like *surround* might be constructed as in (25), with the same conceptual predicate applying to both the arguments associated with the event and the state. When stativized, the existential closure in the stativizer would then be satisfied by the existence of a pure state.

(25) *Lexical stativization of* surround

Root: $\lambda x \lambda e \lambda e'[\text{surround}(x,e') \wedge \text{surround}(x,e) \wedge \text{CAUSE}(e',e)]$

Stativizer: $\lambda P \lambda e \exists e'[P(e,e')]$

Output: $\lambda x \lambda e \exists e'[\text{surround}(x,e') \wedge \text{surround}(x,e) \wedge \text{CAUSE}(e',e)]$

However, this proposal requires every verb root that can produce a pure stative participle to range over both states and events for the ambiguity to exist: if a verb root consists of two conceptual predicates ϕ and ψ associated with the eventualities e and e', the only way that the stativized root can be ambiguous between existentially asserting ϕ and ψ is if $\phi = \psi$.

To prove this, consider the contrapositive: if $\phi \neq \psi$, then a stativized root cannot be ambiguous between existentially asserting ϕ and ψ. Take an arbitrary root $\lambda e \lambda e'[\phi(e') \wedge \psi(e) \wedge$ CAUSE$(e', e)]$ such that such that $\phi \neq \psi$. The stativizer existentially binds e'. As e' is associated with ϕ and not ψ, only ϕ is existentially asserted, and not ψ. Thus, there is no ambiguity in the existential assertion, as was to be shown.

Because the distinction lies in the semantic structure of the *root*, this analysis predicts that stativized predicates with pure stative readings are *all* built on verb roots that already show a stative-eventive ambiguity like *surround*. However, as shown in the example (14), some roots like *break* do not have a stative-eventive ambiguity but form pure stative participles anyway, showing that this prediction is incorrect. There may be ways to adapt the analysis to these cases, but these are not pursued here.

For post-stative predicates, Kratzer (2001) posits that a viewpoint stativizer which maps events to times is responsible for the post-state readings in these cases, complementing the perfective and imperfective morphemes she describes in Kratzer (1998).

(26)   *Viewpoint stativization of* prove the theorem *in Kratzer (2001)*
       Stem+obj: $\lambda e[\text{prove}(\llbracket\text{the theorem}\rrbracket, e)]$
       Stativizer: $\lambda P_{\langle v,t \rangle} \lambda t \exists e[P(e) \wedge \tau(e) \ll t]$
       Output: $\lambda t \exists e[\text{prove}(\llbracket\text{the theorem}\rrbracket, e) \wedge \tau(e) \ll t]$

In cases where the root *does* possess a lexically specified target state, Function Composition allows the viewpoint stativizer to combine with the argument associated with the eventive predicate. This creates post-stative readings of predicates like *the boat is pumped up*, which may be true even when the boat is already deflated if, for instance, pumping up the boat to check for leaks was part of a safety checklist before using it in the water.[11]

To avoid a "dangling" argument associated with the target state, Kratzer proposes "an operator that existentially quantifies the target state argument – if there is one" (p. 12) as part of the label of the syntactic category "V". The viewpoint stativization of *pump the boat* is constructed in (27).

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[11] This example was also rejected or judged extremely marginal by several native speakers of English.

(27)   Viewpoint stativization of *pump up the boat*

Stem+obj: $\lambda e \lambda e'[\text{pump}(\llbracket\text{the boat}\rrbracket, e') \wedge \text{inflated}(\llbracket\text{the boat}\rrbracket, e) \wedge \text{CAUSE}(e', e)]$

"V": $\lambda e \exists e'[\text{pump}(\llbracket\text{the boat}\rrbracket, e) \wedge \text{inflated}(\llbracket\text{the boat}\rrbracket, e') \wedge \text{CAUSE}(e, e')]$

Stativizer: $\lambda P_{\langle v,t \rangle} \lambda t \exists e[P(e) \wedge \tau(e) \ll t]$

Output: $= \lambda t \exists e \exists e'[\text{pump}(\llbracket\text{the boat}\rrbracket, e) \wedge \text{inflated}(\llbracket\text{the boat}\rrbracket, e') \wedge \text{CAUSE}(e, e') \wedge$
$\tau(e) \ll t]$

2.4.2   Building Statives from Aspectually Neutral Roots

The second approach involves building up predicates from roots which contain both processes and target states in their extension. Jackson (2005) notes that "if the eventive verbs and the resultatives with a derived [pure] stative interpretation are derivationally related semantically as well as morphologically … then the meaning that is shared by the derived [pure] statives and the eventive forms is all that can be contributed by a hypothetical common derivational source" (p. 152). Both stative and eventive predicates must then be derived by (possibly null) morphology. This approach draws heavily on the work of Embick (2004).

Jackson (2005) posits several different kinds of morphemes which can occur in the head of vP to restrict the readings of the roots to certain aspectual subsets. These are sometimes realized overtly in the form of light verbs such as *be*, *go*, *get*, etc., other times as overt morphemes on the verb stem, but a lot of the time these are phonologically null. For instance, the English adjectival *be* is an overt form of the stativizer which must attach to roots to derive stative predicates: adjectives or pure stative participles depending on morphological properties of the root. In contrast, an inchoativizer[12] merges at the head of vP to derive eventive predicates.

The stativizer as it is portrayed by Jackson (2005) is adapted into the present framework as a morpheme which asserts durativity and a subinterval property, formalized in (28). Its output is thus stative by definition, containing result states and possibly pure states if the root contains them.

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[12] Jackson (2005) and Embick (2004) both associate this inchoativizer with agentivity, which is problematic in ʔayʔaǰuθəm where inchoativizing and transitivizing morphology are distinct. This association is problematic in several languages, and itself requires further investigation.

(28) $\llbracket \text{STV} \rrbracket = \llbracket be \rrbracket = \lambda P_{\langle v,t \rangle} \lambda e \left[P(e) \wedge \exists e' \left[e' \sqsubset e \vee [e \sqsubset e' \wedge P(e')] \right] \wedge \forall e'' [e'' \sqsubseteq e \rightarrow P(e'')] \right]$

The stativizer takes a predicate P over eventualities, an eventuality e, asserts that e is in the extension of P and that the output is durative and possesses a subinterval property:

a. There is an e' which is either a proper temporal part of e, or a proper superpart of e which is in the extension of P.

b. All temporal parts of e are in the extension of P.

Jackson's inchoativizer is adapted as a morpheme which asserts *quantization*, formalized in (29). Quantization requires that an eventuality under the extension of a predicate has no proper temporal parts which are themselves in the extension of that predicate. This ensures the output is always telic (Krifka, 1992; 1998) and eventive.

(29) $\llbracket \text{INCH} \rrbracket = \lambda P_{\langle v,t \rangle} \lambda e \left[P(e) \wedge \forall e' [e' \sqsubset e \rightarrow \neg P(e')] \right]$

The inchoativizer takes a predicate P over eventualities, an eventuality e, and asserts that e is in the extension of P and that the output is quantized: that all proper temporal subparts of e are not in the extension of P.

Like the previous analysis, post-stative predicates require a different stativizer, and possess a different syntactic structure. A viewpoint stativizer similar to that of Kratzer (2001) merges above the inchoative morphology.

Chapter 3   ʔayʔaǰuθəm Grammar

This chapter outlines the aspects of ʔayʔaǰuθəm grammar that are relevant to the investigation of stativity. Section 3.1 discusses syntactic categories, and outlines the difference between stative and eventive verb roots. Section 3.2 briefly explores the lexical semantics of these verb roots. Section 3.3 outlines how stems with various properties can be derived from ʔayʔaǰuθəm roots. Section 3.4 briefly covers word order in ʔayʔaǰuθəm sentences.

3.1   Syntactic Categories of Roots

This subsection briefly outlines the assumptions made about syntactic classes in this thesis. As is now generally assumed in the Salish literature, and following the evidence presented in Watanabe (2003, pp. 66-76), it is assumed that there is a formal syntactic distinction between noun and verb roots in ʔayʔaǰuθəm.

There may also be a distinction between verbs and adjectives, but its is not as clear, and tests to determine it (e.g. H. Davis, 2011) were not carried out during this investigation. However, there is a subset of non-nominal roots which forms stative bare predicates,[13] and a subset which form eventive bare predicates.

Kroeber (1988), following Holisky (1978), shows that some roots form stative bare predicates which are acceptable with auxiliaries of duration, such as √χʷúχʷ "long time" or qáǰi "still" but not auxiliaries of rate, such as √háhays "slowly" or √ƛíʔ "fast".[14] Some of his examples are given in (30) and (31), alongside some examples from original elicitation to complete the minimal parities.

(30) *Roots with stative bare predicates accepted with auxiliaries of duration*

(a)   χʷoχʷmot ḱʷas   (b)   χʷoχʷmot məƛ

    √χʷúχʷ-mut   **√ḱʷás**   √χʷúχʷ-mut   **√mə́ƛ**

    long.time-very   **hot**   long.time-very   **calm.water**

    "It was **hot** for a long time."   "[The water] was **calm** for a long time."

      (JF; PD)   (JF; PD)

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[13] Bare predicate = a predicate consisting of a root without any overt derivational morphology.
[14] Kroeber (1988) and Watanabe (2003) also employ √ʔaẃθ "suddenly" as an auxiliary of rate, but most of my consultants did not recognize this word, preferring to indicate unexpectedness using limited control or autonomous morphology.

(c) qaǰɛʔot q̓əχ tətθ čeyiš

    qáǰi=ʔut   √q̓ə́χ   tə=tθ=√čáyiš

    still=CLT   **bruised** DET=1S.POS=hand

    "My hand is still **bruised**."

      (Kroeber, 1988, p. 149)

(d) qaǰɛʔot ƛ̓uqʷ

    qáǰi=ʔut   √ƛ̓ə́qʷ

    still=CLT   tough

    "He's still **tough**."

      (Kroeber, 1988, p. 149)

(31) *Roots with stative bare predicates rejected with auxiliaries of rate*

(a) # ƛ̓ɛ k̓ʷas tə tihayɛ

    √ƛ̓íʔ   √k̓ʷás tə=√tíhayaʔ

    fast   **hot**   DET=tea

      (Kroeber, 1988, p. 151)

(b) # hahays məƛ̓

    √háhays   √mə́ƛ̓

    slowly   **calm.water**

      (Kroeber, 1988, p. 150)

(c) # ƛ̓ɛ q̓əχ tətθ čeyiš

    √ƛ̓íʔ   √q̓ə́χ   tə=tθ=√čáyiš

    fast   **bruised** DET=1S.POS=hand

      (JF; PD)

(d) # hahays ƛ̓uqʷ

    √háhays   √ƛ̓ə́qʷ

    slowly   tough

      (JF; PD)

Other roots display the opposite pattern, forming eventive bare predicates which are accepted with auxiliaries of rate but not of duration.

(32) *Roots with eventive bare predicates accepted with auxiliaries of rate*

(a) hɛhɛys təq tə ʔemɛn

    √háhays   √tə́q tə=√ʔímin

    slowly   **close** DET=door

    "The door slowly **closed**."

      (Watanabe, 2003, p. 414)

(b) ƛ̓emot q̓ətxʷ šə q̓ʷaẏχ

    √ƛ̓íʔ-mut   √q̓ə́txʷ šə=√q̓ʷaẏχ

    fast-very   **burn**   DET=wood

    "The wood **burnt up** real fast."

      (JF; PD)

(c) ƛ̓emot łak̓ʷ tə tθ čeyiš

    √ƛ̓íʔ-mut   √łák̓ʷ tə=tθ=√čáyiš

    fast-very   **swell** DET=1S.POS=hand

    "My hand **swelled** up real fast."

      (Kroeber, 1988, p. 150)

(d) hahays k̓ɪp pipa

    √háhays   √k̓ə́p "pipa"

    slowly   **get.cut** paper

    "The paper **got cut** slowly."

      (JF; PD)

(33) *Roots with eventive bare predicates rejected with auxiliaries of duration*

(a) **#** qaǰɛʔot təq

    qáǰi=ʔut   √tə́q

    still=CLT   **close**

      (Watanabe, 2003, p. 413)

(b) **#** qaǰɛʔot q̓ətxʷ

    qáǰi=ʔut   √q̓ə́txʷ⫽

    still=CLT   burn

      (Watanabe, 2003, p. 413)

(c) **#** χʷoχʷmot ɬak̓ʷ

    √χʷúχʷ-mut   √ɬák̓ʷ

    long.time-very   **swell**

      (JF; PD)

(d) **#** χʷoχʷmot k̓ʊp pipa

    √χʷúχʷ-mut   √k̓ə́p   "pipa"

    long.time-very   **get.cut**   paper

      (JF; PD)

Eventive stems can be derived from roots which otherwise form stative bare predicates via inchoative reduplication. Building on Kroeber (1988), Watanabe (2003) describes this process as "inceptive". Like eventive roots, derived inchoative stems can co-occur with auxiliaries of rate but not auxiliaries of duration, as shown in examples (34) and (35).

(34) *Derived inchoative predicates accepted with auxiliaries of rate*

(a) ƛ̓ɛmot tihih

    √ƛ̓íʔ-mut   √tíh~ih

    fast-very   **big~INCH**

    "It got bigger fast."

      (Kroeber, 1988, p. 152)

(b) ƛ̓ɛ k̓ʷasas tə tihayɛ

    √ƛ̓íʔ   √k̓ʷás~as   tə=√tíhaya

    fast   **hot~INCH**   DET=tea

    "The tea got hot fast."

      (adapted from Kroeber, 1988, p. 152)

(c) hahays tɛčɛčəm

    √háhays   √táč~ač-əm

    slowly   **visible~INCH-MD**

    "It slowly became visible."

      (JF; PD)

(d) hahays t̓osos tə čuý

    √háhays   √t̓ús~us   tə=√čuy

    slowly   **quiet~INCH**   DET=child

    "The child slowly got quiet."

      (adapted from Kroeber, 1988, p. 151)

(35) *Derived inchoative predicates rejected with auxiliaries of duration*

(a) **#** qaǰɛʔot tihih

    qáǰi-ʔut   √tíh~ih

    still-CLT   **big~INCH**

      (Kroeber, 1988, p. 151)

(b) **#** qaǰɛʔot k̓ʷasas tə tihayɛ

    qáǰi-ʔut   √k̓ʷás~as   tə=√tíhaya

    still-CLT   **hot~INCH**   DET=tea

      (JF; PD)

(c) **#** χʷoχʷmot tɛčɛčəm

√χʷúχʷ-mut   **√táč~ač-əm**

long.time-very   **visible~INCH-MD**

   (adapted from Kroeber, 1988, p. 151)

(d) **#** χʷoχʷmot ťosos čuý

√χʷúχʷ-mut   **√ťús~us**   √čuy

long.time-very **quiet~INCH** child

   (JF; PD)

As pointed out by Kroeber (1988), inchoative derivation is systematically rejected with roots which form eventive bare predicates, as shown in the originally elicited example (36).

(36) *Inchoativizer rejected on roots which form eventive bare predicates*

(JF; MW; EP)

Unmarked Root	**Root~INCH**
√q̓ətxʷ	**#** √q̓ə́t<~ət>xʷ
"get burnt"	
√λ̓ə́pxʷ	**#** √λ̓ə́p<~əp>xʷ
"get broken (in two)"	
√k̓ə́p	**#** √k̓ə́p~əp
"get cut"	
√tə́q	**#** √tə́q~əq
"get closed"	
√ǰíχ-im	**#** √ǰíχ<~iχ>-im
"get destroyed / fall apart"	**#** √ǰíχ~iχ

Similarly, stative stems can be derived from roots which otherwise would form eventive bare predicates by affixation with the stativizer. Stativized stems are accepted with auxiliaries of duration, but not auxiliaries of rate, as shown in (37) and (38). The stativizer is the focus of this thesis, and its properties are explored further in **§5**.

(37) *Derived stative predicates accepted with auxiliaries of duration*

(a) qaǰɛʔot pəχɛt tə tᶿ q̓asnɛ́y̓

    qáǰi=ʔut   √pə́χ-it

    still=CLT   **get.torn-STV**

      tə=tᶿ=√q̓ásnay

      DET=1S.POS=shirt

    "My shirt is still torn."

      (Kroeber, 1988, p. 148)

(b) qaǰɛʔot təqɛt

    qáǰi=ʔut   √tə́q-it

    still=CLT   **close-STV**

    "It is still closed."

      (Watanabe, 2003, p. 413)

(c) χʷoχʷmot łak̓ʷɛt tə tᶿ čɛyiš

    √χʷúχʷ-mut   √łák̓ʷ-ít

    long.time-very   **swell-STV**

      tə=tᶿ=√čáyiš

      DET=1S.POS=hand

    "My hand was swollen for a long time."

      (JF; PD)

(d) χʷoχʷmotč ƛ̓iy̓čt

    √χʷúχʷ-mut=č   ƛ̓iy̓čt

    long.time-very=1S.IND   **sleep[STV]**

    "I slept for a long time."

      (JF; PD)

(38) *Derived stative predicates rejected with auxiliaries of rate*

(a) **#** hahɛys pəχɛt tə tᶿ q̓asnɛ́y̓

    √háhays   √pə́χ-it

    slowly   **get.torn-STV**

      tə=tᶿ=√q̓ásnay

      DET=1S.POS=shirt

      (JF; PD)

(b) **#** hahɛys təqɛt tə ʔɛmɛn

    √háhays   √tə́q-it   tə=√ʔímin

    slowly   **close-STV** DET=door

      (Watanabe, 2003, p. 414)

(c) **#** ƛ̓ɛmot łak̓ʷɛt tə tᶿ čɛyiš

    √ƛ̓íʔ-mut   √łák̓ʷ-ít

    fast-very   **swell-STV**

      tə=tᶿ=√čáyiš

      DET=1S.POS=hand

      (Kroeber, 1988, p. 148)

(d) **#** ƛ̓ɛmotč ƛ̓iy̓čt

    √ƛ̓íʔ-mut =č   ƛ̓iy̓čt

    fast-very=1S.IND   **sleep[STV]**

      (JF; PD)

It is difficult to tell if there are demonstrable constraints which distinguish between state-denoting roots and event-denoting roots as formally distinct syntactic categories beyond simply a semantic distinction between two kinds of verb root. H. Davis (2011) concludes that such

constraints exist in Lillooet Salish (Northern Interior Salish), where a class of root similar to those denoting states in ʔayʔaǰuθəm demonstrates distinctly adjectival syntactic behaviour. The full battery of tests he employs were not applied to ʔayʔaǰuθəm in this investigation.

However, the distinction between verbs and adjectives is not consequential for the approach followed in this thesis. Thus, roots which form stative bare predicates are called *stative roots* and roots which form eventive bare predicates are called *eventive roots*.

3.2   Lexical Aspect of Verb Roots

Verb roots in ʔayʔaǰuθəm cannot be partitioned in the same way as their English counterparts. The diagnostics for lexical aspect class in English proposed by Vendler (1957) does not partition ʔayʔaǰuθəm verb roots in the same way. As far as verb roots (as opposed to derived stems) are concerned, it is sufficient to subdivide them by only eventivity and stativity.

3.2.1 Eventive Verb Roots

Following observations made by Bar-el (2005, p. 130) and Kiyota (2008, pp. 57-66) for bare root predicates in Squamish and Northern Straits respectively (both members of the Central Salish branch), and Bar-el, H. Davis, and Matthewson (2004a) for bare root predicates in Lillooet Salish (Interior Salish branch), eventive verb roots in ʔayʔaǰuθəm are assumed to be *telic achievements* denoting *transitions.* A full exploration of the lexical semantics of eventive verb roots in ʔayʔaǰuθəm is left for future work.

Eventive roots are not compatible with auxiliaries of duration, as discussed in **§3.1**. Furthermore, they are demonstrably telic, as denying the result of a bare eventive root induces a contradiction, shown in examples (39-41).

(39) čɛq saplʊn **#** ʔiy χʷaʔ čɛɱas hoy

√**číyq**	√sáplin	ʔiy	χʷaʔ	čáɱ=as	√húy
get.fried	bread	and	NEG	AUX=3CNJ	finish

"The bread **got fried #** but it never finished."

Consultant (PD) comment: "You can only say čɛq saplʊn at the end, when it's done."

   (JF; PD)

(40) təq tə ʔɛmɛn **#** ʔiy qaǰɛʔot gəq́ɛt

    √təq́   tə=√ʔímin ʔiy   qáǰi=ʔut   √gə́q́-it

    close   DET=door and   still=CLT   open-stv

    "The door **closed #** but it is still open."

      (JF; PD)

(41) qayoɬ čɛńo **#** ʔiy qaǰɛʔot kʷʊkʷtəm

    √qáy-uɬ   √čańu   ʔiy   qáǰi=ʔut   kʷə́~√kʷt-əm

    die-PST   dog   and   still=CLT   PROG~get.sick-MD

    "The dog **died #** but it is still sick."

      (JF; PD)

Note that eventive roots being called *achievements* is a result of them being *telic* but having their duration be *inaccessible*; it is not necessarily the case that ʔayʔaǰuθəm eventive verb roots never encode processes, but rather that the duration of their process (if it exists) is somehow invisible to the syntactic-semantic computation. As far as the lexical aspectual behaviour of bare eventive roots is concerned, durativity does not seem to matter in Salish (H. Davis, p.c.); even predicates encoding events that take time to unfold in any reasonable circumstance are incompatible with durativity tests.

Stems corresponding to accomplishments and activities must be derived by additional morphology, and these classes also differ from their counterparts in English in various ways. Fully exploring these derivations is beyond the scope of this thesis; see H. Davis and Demirdache (2000), Matthewson (2004a), Bar-el (2005), Kiyota (2008), H. Davis and Matthewson (2009), Turner (2011), and Jacobs (2011) for an exploration of derived aspectual classes in other Salish languages, and Andreotti (2017) for an investigation of the non-culminating accomplishment predicates that result from the control transitivizer in ʔayʔaǰuθəm.

3.2.2 Stative Verb Roots

The lexical aspectual structure of stative verb roots in ʔayʔaǰuθəm is much simpler than that of eventive roots, in that they straightforwardly denote states in the sense of Pustejovsky (1991) as discussed in **§2.1**.

Unlike the apparently analogous class of roots in Squamish which Bar-el (2005, pp. 94-6) calls *inchoative states*, stative verb roots in ʔayʔaǰuθəm were not observed being interpreted as

transitions without inchoative morphology during the course of this investigation. However, this observation was not specifically targeted during this investigation, so negative data was not obtained. Example (42) illustrates the two possible readings of an inchoative state in Squamish.

(42) *Inchoative states in Squamish*
(Bar-el, 2005, p. 126)

(a)	chen	t'aya<u>k</u>'	(b)	chen	kw'ay'	(c)	chen	lhchiws
	1S.IND	angry		1S.IND	hungry		1S.IND	tired

(a) "I got angry/upset." (b) "I got hungry" (c) "I got tired."
"I am angry." "I am hungry." "I am tired."

However, Bar-el also reports that inchoative states receive stative readings from the marker of progressive aspect, as shown in (43); this contrast starkly with what was found for ʔayʔaǰuθəm stative roots, which are systematically rejected with the progressive, as shown in (44). Note, however, that the examples reported by Bar-el were not specifically elicited.

(43) *The Squamish progressive on inchoative states interpreted as stative*
(Bar-el, 2005, p. 273)

(a)	chen	**t'a**~t'aya<u>k</u>'	(b)	chen	**kw'a**~kw'ay'	(c)	chen	**ts'a**~ts'ayakw
	1S.IND	**PROG**~angry		1S.IND	**PROG**~hungry		1S.IND	**PROG**~worry

(a) "I am angry." (b) "I am hungry." (c) "I am worried."

(44) *The ʔayʔaǰuθəm progressive does not extend to states*
(JF; PD)

(a) ƛ̓əp θɛɣ́ɛɬ
√ƛ̓ə́p √θáɣ́aɬ
deep lake
"The lake is deep."

(b) # ƛ̓əƛ̓p θɛɣ́ɛɬ
ƛ̓ə́~√ƛ̓p √θáɣ́aɬ//
PROG~deep lake

(c) tih tə ʔayɛ
√tíh tə=√ʔáya
big DET=house
"The house is big"

(d) # titih tə ʔayɛ
tí~√tih tə=√ʔáya
PROG~big DET=house

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(e) pəq čɛ́ńo (f) # pəpq čɛ́ńo

√páʔq √čańu pá́~√pq √čańu

white dog PROG~white dog

"The dog is white."

(g) pəsosč (h) # pəpsosč

√páʔs-us=č pá́~√ps-us=č

numb-face=1S.IND PROG~numb-face=1S.IND

"My face is numb."

(i) məƛ̓ (j) # məmƛ̓

√máʔƛ̓ má́~√máʔƛ̓

calm.water PROG~calm.water

"[The water] is calm."

3.3 Predicates Derived from Verb Roots

H. Davis (1997) argues that verb roots in Salish languages are lexically intransitive and unaccusative – that all Salish verb roots have no external argument lexically, which then has to be introduced by derivational transitivizing morphology (see Gerdts & Hukari, 2006 for an alternative analysis of transitivizing morphology as inflectional).

(45) *Bare unaccusative verb root rejected with an agent (Lillooet Salish)*

qaḿt (l=)ta=šqáyxʷ=a ta=twə́ẃ.ẃət=a

get.hit (OBL=)DET=man=EXI DET=boy=EXI

"The boy was hit **with** the man." (Instrumental reading)

"The boy was hit **by** the man." (Agentive reading)

  (H. Davis, 1997, p. 63)

(46) *Derived transitive stem required for agent to be permitted*

qáḿt-**š**-tuḿ l=ta=šqáyxʷ=a ta=twə́ẃ.ẃət=a

get.hit-**CAU**-3OBJ+PASS OBL=DET=man=EXI DET=boy=EXI

"The boy was hit by the man."

  (H. Davis, 1997, p. 64)

Andreotti (2018) shows that many of the observations in Davis (1997) also hold for ʔayʔaǰuθəm. Bare roots do not admit agents, requiring overt morphology to exhibit transitivity. The hypothesis that ʔayʔaǰuθəm verb roots are underlyingly unaccusative is thus presupposed in this thesis.

(47) *Bare predicate of an eventive root is unaccusative (ʔayʔaǰuθəm)*
      təq ʔɛmɛn
      √tə́q   √ʔímin
      get.closed   door
      "The door closed (by itself)."
          (JF; PD)

(48) Bare unaccusative verb root rejected with an agent
      # təq Bruno ʔɛmɛn
      √tə́q   Bruno   √ʔímin
      get.closed   Bruno   door
          (JF; PD)

(49) Derived transitive stem required for agent to be permitted
      təqtəm Bruno ʔɛmɛn
      √tə́q-t-əm   Bruno   √ʔímin
      get.closed-CTR[3OBJ]-PASS   Bruno   door
      "Bruno closed the door."
          (JF; PD)

Note that the use of passive morphology such as in example (16) is required when the argument introduced by the transitivizer is an overt DP (H. Davis & Huijsmans, 2017).

Examples (50) and (51) demonstrate how the valence and argument structure of an unaccusative root can be modified by derivational suffixes such as the active intransitive (glossed AI) which demotes the patient and introduces an agent, or the directive/control

transitivizer (glossed DIR in Lilooet Salish and CTR in ʔayʔaǰuθəm due to related but diverging semantics).[15]

(50) *Deriving unaccusative roots in Lillooet*
(H. Davis, 1997)

q̓ʷəl	q̓ʷə́l-xál	q̓ʷə́l-ən
get.cooked	get.cooked-AI	get.cooked-DIR
"to get cooked"	"to cook/roast" (intr.)	"to cook it"

(51) *Deriving unaccusative roots in ʔayʔaǰuθəm*
(Andreotti, 2018)

yuṗ	yuṗʔəm	yuṗt
√yə́ṗ	√yə́ṗ-ʔəm	√yə́ṗ-t
get.broken	get.broken-AI	get.broken-CTR
"to get broken"	"to break something"	"to break it"

While they may consist of only a root, predicates often consist of heavily derived stems which employ various morphological processes that modify or convey valence, voice, argument agreement, and aspect. The general schema of a predicate in ʔayʔaǰuθəm, given in (52), is divided into 4 domains. It differs from other Salish languages starkly in that due to influence from neighbouring Wakashan languages (J. Davis, 1970; Blake, 1999), the language has lost all non-reduplicative prefixes.

(52) *General schema of a predicate in ʔayʔaǰuθəm*
$[_4$Clt$=[_3[_2$ Asp2$-[_1$**√ROOT**$_1]$-**Asp1**-LS-Appl-Tr/Intr$_2]$ -Obj-Voice$_3]=$Sbj$=$Clt$_4]$
(adpted from Watanabe, 2003, p. 167)

1. The root, being the only obligatory part of the predicate, constitutes the most central root-level domain;

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[15] These suffixes do more than modify the argument structure of their parent predicate. They affect the predicate's aspectual structure too, creating non-culminating accomplishments; predicates which have a culminature *implicature*, but may have this implicature overtly denied (see Bar-el, Davis, & Matthewson, 2004a; Bar-el, 2005, pp. 325-7; Kiyota, 2008, pp. 80-4; Andreotti, 2017).

2. The stem-level domain consists of an inner aspectual position (Asp1), an outer-aspectual position restricted to reduplicative morphemes[16] (Asp2), a position for lexical suffixes (LS), a position for applicatives (Appl), and a position for stem-internal (in)transitivizers (Tr/Intr);

3. The morphological word domain consists of a position for object suffixes (Obj), and a position for ergative/voice suffixes (Voice);

4. The phonological word domain hosts a plethora of clitics, including pronominal subject clitics (Sbj), as well as other clitics encoding evidentiality, modality, mood, and other properties (Clt). The functions of many of these clitics are not well understood.

The only domains that are relevant to this investigation are the root and the stem, and the latter only as far as the first aspectual position. These are bolded in the schema.

3.4   Word Order

Like other Salish languages, ʔayʔaǰuθəm is predicate-initial, and exhibits a default Predicate-Subject-Object word order in the clausal spine of transitive sentences.

(53) ʔaʔaq́ɛtəm Henry Bruno

ʔá~√ʔaq́-at-əm   Henry   Bruno

PROG~get.chased-CTR[3OBJ]-PASS   Henry   Bruno

"Henry is chasing Bruno."

    (JF)

Auxiliaries and clitics are the only elements that syntactically precede the main predicate in the body of a clause.

(54) qaǰɛʔot ʔaʔaq́ɛtəm Henry Bruno

qáǰi=ʔut   ʔá~√ʔaq́-at-əm   Henry   Bruno

still=CLT   PROG~get.chased-CTR[3OBJ]-PASS Henry   Bruno

"Henry is **still** chasing Bruno."

    (JF)

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[16] I am assuming all forms of pluractional reduplication merge at this outer aspect position and nowhere else, leaving a more precise map of their possible scope positions for future study. This assumption is not crucial to the investigation.

Clitic strings occur either in the second position of a clause or, more rarely, clause-initially. Why clitic strings occur clause-initially is not well understood. Some clitics have corresponding auxiliaries which often have different but related meanings.

Several forms of extraction exist in ʔayʔaǰuθəm which may distort this word order; these are not explored here. See Watanabe (2003, pp. 146-66) for more information.

Chapter 4　　The ʔayʔaǰuθəm Stativizer

In ʔayʔaǰuθəm, eventive roots can form derived stative predicates by means of a morpheme which is here called the *stativizer*. This chapter outlines the phonology and morphosyntax of the stativizer, and presents an exploration of the semantic properties of the stativizer resulting from original elicitation conducted during this project.

To this end, this chapter is organised into four sections. Section 4.1 demonstrates the different shapes the stativizer takes in various environments. Section 4.2 examines the morphosyntactic properties of sativized predicates, and Section 4.3 explores their semantics properties.

4.1　Shape of the Stativizer

The shape of the stativizer is highly variable, depending on the shape of the stem. Watanabe (2003, p. 410-11) describes four shapes of the stativizer depending on the shape of the root:

a. ∥-it∥: With CəC stems, the stative morpheme surfaces as a suffix CəC-it. This shape of the morpheme is found exclusively when it is attached directly to roots containing only a schwa vowel. Examples: təqɛt "be closed" ∥√tə́q-**it**∥ (√tə́q "get closed"); k̓ɪpɛt "be cut" ∥√k̓ə́p-**it**∥ (√k̓ə́p "get cut"); ǰuk̓ʷɛt "be painted" ∥√ǰə́k̓ʷ-**it**∥ (√ǰə́k̓ʷ "get painted").

b. ∥-ít∥: With CV́C stems, the stative morpheme surfaces as a suffix CV́C-ít; the same suffix as found with CəC roots, but with an additional suprasegmental feature marked with an acute accent ´ which is called *stress* throughout this thesis.[17] However, Mellesmoen & Andreotti (2017) argue that this may not be an acoustically accurate description; this feature correlates predominantly with pitch, and while raised pitch is the main acoustic correlate of contrastive stress, it may occur independently of it. Examples of this allomorph of the stativizer: ǰɛχə́t "be collapsed/destroyed" ∥√ǰíχ-**ít**∥ (√ǰíχ "fall apart"); panə́t "be buried" ∥√pán-**ít**∥ (√pán – "get buried"); ǰaq̓ə́t "be fallen" ∥√ǰáq̓-**ít**∥ (√ǰáq̓ "fall").

c. ∥<i>∥: With CəCC, CəCəC, CV́CC, or CV́CəC stems, the stative morpheme surfaces as an infix, CəC<i>C or CV́C<i>C. Examples: q̓ətɛxʷ "be burnt" ∥√q̓ə́t<i>xʷ∥ (√q̓ə́txʷ "get burnt"); ʔat̓θɛq̓ʷ "be boiled" ∥√ʔát̓θ<i>q̓ʷ∥ (√ʔát̓θq̓ʷ "get boiled"); ƛ̓aɬɛm "be salted"

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[17] Note that this is used both for the primary stress, which in ʔayʔaǰuθəm falls predictably on the word-initial syllable (Watanabe, 2003, p. 21), *and* secondary stress as a suprasegmental piece of morphology.

∥√ƛ̓áɬ-<i>m∥ (√ƛ̓áɬ^-əm "add salt"); t̓θayič "be twisted" ∥t̓θáy<i>č∥ (√t̓θáyč "to get twisted").

d. ∥\ ´ ∥: With CV́CVC stems it surfaces purely as secondary stress CV̀CV́C. Examples: ʔaχέθ "be lying down" ∥√ʔáχ\íθ∥ (√ʔáχiθ "lie down"); qomót "keep it in mouth" ∥√qúm-\út∥ (√qúm-ut "put it in mouth"), kʷanέč "be sitting down" ∥√kʷán-n\áč∥ (√kʷán-nač-əm "sit down").

With the relatively rare stems larger than five segments, which are usually formed as the result of affixation with lexical suffixes, the shape of the transitivizer is often unpredictable. In many such stems, the stativizer takes the infixal or suprasegmental shape in alignment with the right edge of the stem, but in others it seems to take a lexically-specified form, often involving changes in resonant glottalization. The phonological processes at work are a question for future research. See Watanabe (2003, pp. 328-31) for examples; stems with lexical suffixes are not investigated in this thesis.

4.2 Morphosyntactic Properties of the Stativizer

Not much work was done on the syntax of the stativizer during this investigation due to the focus on its semantics. Only matrix predicates were considered in this investigation, though stativized predicates may also be used in relative clauses modifying NPs; it is not known if there are any differences in interpretation between matrix and subordinate stativized predicates in ʔayʔaǰuθəm.

Stem-level morphology, such as lexical suffixes and (in)transitivizers, co-occur with the stativizer differently from word-level morphology such as object and ergative/voice suffixes. With an intransitivizer like the active-intransitive morpheme, for instance, the stativizer is realized as an infix; with the causative transitivizer, on the other hand, it is realized as a full suffix on the stem. This is shown in (55) and (56). See Appendix 1 for more examples.

(55) *Stative realized as an infix with active-intransitive*

ǰuθʔəmč   ǰuθʔɛmč
√ǰúθ-ʔəm=č   √ǰúθ-ʔ[í]m=č
get.pushed-AI=1SG.IND   get.pushed-AI[STV]=1SG.IND
"I am pushing something."   "I am pushing something (to keep it in place)"

(56) *Stative realized as a suffix on the root with causative*

təqɛt ʔɛmɛn   təqɛtstəm θukʷnɛčtən tə ʔɛmɛn

√tə́q-it   √ʔímin   √tə́q-**it**-st-əm   √θúkʷnačtən

get.closed-STV door   get.closed-**STV**-CAU[3OBJ]-PASS chair

'The door is closed.'   tə=√ʔímin

                                                DET=door

                                        'The chair is keeping the door closed.'

This shows that the stativizer is lower than at least the causativizer, the innermost position in the morphological word domain. Due to its phonological right-alignment to the stem edge, however, it is difficult to determine the order of morphemes within the stem. One possible clue to its position in the stem relates to the fact that it cannot co-occur with the inchoativizer, which is always adjacent to the root, being one of few morphemes that precedes lexical suffixes (Watanabe, 2003, p. 307).

(57) *ʔayʔajŭθəm inchoativizer and stativizer do not co-occur*

(MW; EP)

Bare Stative Root	**Root~INCH**	**Root~INCH\<STV\>**	**Root-INCH-STV**
√ƛ̓ə́qʷ	√ƛ̓ə́qʷ~əqʷ	# √ƛ̓əqʷ~\<i\>qʷ	# √ƛ̓əqʷ~əqʷ-it
"hard"	"to harden"		
√tíh	√tíh~ih	# √tíh~\<i\>h	# √tíh~ih-it
"big"	"to grow"		
√pə́q	√pə́q~əq	# √pə́q~\<i\>q	# √pə́q~əq-it
"white"	"to whiten"		
√q̓ə́χ	√q̓ə́χ~əχ	# √q̓ə́χ~\<i\>χ	# √q̓ə́χ~əχ-it
"bruised"	"get bruised"		
√pə́s	√pə́s~əs	# √pə́s~\<i\>s	# √pə́s~əs-it
"numb"	"get numb"		
√čə́pχ	√čə́p\<~əp\>χ	# √čə́p\<~\<i\>p\>χ	# √čə́p\<~əp\>χ-it
"dirty"	"get dirty"	# √čə́p\<~əp\>\<i\>χ	

This data is somewhat unexpected as inchoativizers and stativizers co-occur frequently in other languages (including English; e.g. *reddened*, *flattened*, *emboldened*, etc.), though it is observed in other Salish languages (H. Davis, p.c.). One way to explain this gap is to suggest that the inchoativizer and the stativizer share the same syntactic position, which would place the stativizer immediately adjacent to the root.

4.3   Semantic Properties of the Stativizer

The function of the stativizer is to *derive a stative stem from an eventive verb root*. Stativized stems exhibit the same behaviour with the diagnostic for stativity as stative roots; they are accepted with auxiliaries of duration, rejected with auxiliaries of rate, and rejected with progressive reduplication.

Watanabe (2003) states that the semantic function of the stativizer is to express "a durative (and possibly imperfective) situation that is not ongoing" (p. 413); in the present terminology, a durative predicate that does not possess a process. His analysis is based on Holisky's (1978) and Kroeber's (1988) use of diagnostics involving auxiliaries of rate and manner.

As discussed in **§3.1**, Kroeber (1988) and Watanabe (2003) give several examples which show that like bare stative roots, stativized stems are compatible with auxiliaries of duration but rejected with auxiliaries of rate.

(58) *Derived stative predicates accepted with auxiliaries of duration*

(a)   qaǰɛʔot pəχɛt tə tᶿ q̇asnɛẏ

    qáǰi=ʔut   **√pə́χ-it**

    still=CLT   **get.torn-STV**

      tə=tᶿ=√q̇ásnay

      DET=1S.POS=shirt

    "My shirt is still torn."

      (Kroeber, 1988, p. 148)

(b)   qaǰɛʔot təqɛt

    qáǰi=ʔut   **√tə́q-it**

    still=CLT   **close-STV**

    "It is still closed."

      (Watanabe, 2003, p. 413)

(c) χʷoχʷmot łaḱʷɛt tə tᶿ čɛyiš

√χʷúχʷ-mut   √łáḱʷ-ít

long.time-very   swell-STV

    tə=tᶿ=√čáyiš

    DET=1S.POS=hand

"My hand was swollen for a long time."

    (JF; PD)

(d) χʷoχʷmotč ƛ́iyč̓t

√χʷúχʷ-mut=č   ƛ́iyč̓t

long.time-very=1S.IND   sleep[STV]

"I slept for a long time."

    (JF; PD)

(59) *Derived stative predicates rejected with auxiliaries of rate*

(a) # hahɛys pəχɛt tə tᶿ q̓asnɛ́y

√háhays   √pə́χ-it

slowly   get.torn-STV

    tə=tᶿ=√q̓ásnay

    DET=1S.POS=shirt

    (JF; PD)

(b) # hahɛys təqɛt tə ʔɛmɛn

√háhays   √tə́q-it   tə=√ʔímin

slowly   close-STV DET=door

    (Watanabe, 2003, p. 414)

(c) # ƛ́ɛmot łaḱʷɛt tə tᶿ čɛyiš

√ƛ́íʔ-mut   √łáḱʷ-ít

fast-very   swell-STV

    tə=tᶿ=√čáyiš

    DET=1S.POS=hand

    (Kroeber, 1988, p. 148)

(d) # ƛ́ɛmotč ƛ́iyč̓t

√ƛ́íʔ-mut =č   ƛ́iyč̓t

fast-very=1S.IND   sleep[STV]

    (JF; PD)

Kroeber (1988) and Watanabe (2003) label the morpheme as a marker of pure stativity, but posit that "it may be possible that it is more precisely a marker of 'resultative'" stativity (Watanabe, 2003, p. 414), denoting "such and such a state as the result of some event" (Kroeber, 1988, p. 154, fn. 15). Watanabe cites Nedjalkov and Jaxontov's (1988) distinction outlined in §2.2, though he does not commit to a resultative analysis.

As preliminary evidence for a resultative analysis of the stativizer, Watanabe shows that there are rare cases of stativized stems built on stative roots. These are frequently translated with *already*, and the stativizer would otherwise be redundant on these roots, so he suggests a resultative analysis might better capture the semantic contribution of the stativizer, though he does not commit to this analysis. His examples, alongside their stativity diagnostics, are given in (60).

(60) *Stative root (and diagnostics) with stativizer*

(all examples adapted from Watanabe, 2003, pp. 415-6)

Aux. of duration	Aux. of rate	Inchoativizer	Stativizer
qəǰɛʔot **pəs**	# ʔɛẃθ **pəs**	pəsəs	pəsɛt
qáǰi=ʔut √**pə́s**	√ʔáẃθ √**pə́s**	√**pə́s~əs**	√**pə́s-it**
still=CLT numb	suddenly numb	**numb~INCH**	**numb-STV**
"It is still numb."		"It got numb."	"It is (already?) numb."
qəǰɛʔot **yɪč̓**	# hahays **yɪč̓**	yɛʔč̓ɪč̓	yɛʔč̓ɛt
qə́ǰi=ʔut √**yə́č̓**	√háhays √**yə́č̓**	√**yə́č̓~əč̓**	√**yə́č̓-it**
still=CLT **full**	slowly **full**	**full~INCH**	**full-STV**
"It is still full."		"It got full."	"It is (already?) full."

The examples of these cases encountered during the present investigation are given in (61). These examples were each offered by one consultant and rejected by all others. Kroeber (1988, p. 154, fn. 15) also reports several more examples of these roots, though these were rejected by consultants in this investigation. As Watanabe (2003, p. 415, fn. 323) observes, this is probably not due to invalid findings but because these examples represent "an area in [ʔayʔaǰuθəm] grammar that is not straightforward," with judgements being highly variable between speakers (and possibly between contexts; these examples were obtained in isolation, so it is difficult to tell).

(61) *Stativized stems built on stative roots often translated with "already"*

% q̓əχɛt	% pəsɛt	% ƛaʔmɛt
√**q̓ə́χ-it**	√**pə́s-it**	√**ƛám-ít**
bruised-**STV**	numb-**STV**	wet-**STV**
"be **already** bruised"	"be **already** numb"	"be **already** wet"
(KG)	(PD)	(EP)

Interestingly, each consultant who offered one of these forms would then reject its unstativized counterparts if immediately juxtaposed, though the same consultant may have offered the unstativized form at another time.

Despite these observations, however, elicitation targeted on the distinction between pure stativity and resultative stativity shows that the hypothesis that the ɁayɁaǰuθəm stativizer always derives a resultative predicate is incorrect; many predicates in ɁayɁaǰuθəm derived by the stativizer can receive pure stative readings.

Twenty eventive roots corresponding to verbs of result in English were used to investigate this question, given in (62).[18]

(62) *ɁayɁaǰuθəm verb roots corresponding to verbs of result in English*

√pə́n	"get buried"	√pə́ƛ̓š	"rise to the surface"
√tə́q	"get opened"	√χáλ	"get ripped apart"
√gə́q̓	"get closed"	√ǰáq̓	"fall over"
√kʷə́ɬ	"get spilt"	√qə́ms	"get put away"
√wút	"get bent"	√ƛ̓áḱʷ	"get extinguished"
√šə́yp	"get lined up"	√ƛ̓úp	"get healed"
√ḱʷə́q̓	"get split"	√máč̓	"get greased up"
√pə́sxʷ	"get deflated"	√hág	"get warmed up"
√pə́χ	"get torn"	√ǰíχ	"fall apart"
√ǰáχʷ	"get melted"	√č̓áχ	"get cooked"

To test stativized predicates built on these roots for the possibility of a pure stative reading, contexts were designed where the existence of an originating event as described by the root is semantically impossible or pragmatically unlikely. These contexts were presented alongside pictures chosen to reinforce the context. Consultants would then be asked if a prepared sentence containing a stativized predicate is acceptable denoting the pure state in that context.

Fourteen examples of stativized predicates with pure stative readings were found through this method, given in (63-74). In many of the contexts, the stativized predicates were produced spontaneously by at least one consultant once the context was presented (though not the

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[18] Note that all 20 roots tested correspond to verbs of result in English, as per the classification of Levin and Rappaport Hovav (1991). Roots corresponding to verbs of manner were excluded from the investigation into pure stativity, as a much deeper understanding of the lexicon of the language would be needed to address what kind of pure stative reading these would receive, if such a reading possible at all. See Appendix 2 for more discussion on the manner/result distinction.

elaboration that accompanies them, which were accepted but not themselves spontaneously produced); where this is the case, the example is marked with a ✪ symbol.

(63) pənɛt tə χaǰɪys, pɛyot nɛʔoɫ tɛʔɛ

√pə́n-ít	tə=√χáǰəys,	páya=ʔut	√níʔ-uɫ	táʔa
get.buried-STV	DET=rock,	always=CLT	be.there-PST	DEM

"The rock is **buried / underground**, it has always been there."

Context: Describing a picture of a rock underground, explained to have always been there.

(JF; MH; MW; KG)

(64) ✪ təqɛt mamqɛyustən, xʷaʔ čɛmɛs gəq́

√tə́q-it	√mə́mqayustən,	xʷaʔ	čam=as	√gəq́
close-STV	window,	NEG	MOD=3CNJ	get.opened

"The window is **closed**, it cannot be opened."

Context: Describing a picture of a window built in such a way as it cannot be opened.

(JF; MH; MW; KG)

(65) ✪ gəq́ɛt ʔɛmɛn, xʷaʔ čɛmɛs təqoɫ

√gə́q́-it	√ʔímin,	xʷaʔ	čam=as	√təq-uɫ
get.opened-STV	door,	NEG	MOD=3CNJ	get.closed-PST

"The door is **open**, it has never closed."

Context: Describing a picture of a doorway, described as never having had an actual door.[19]

(JF; MH; MW; KG)

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[19] This example illustrates an interesting lexical difference between English and ʔayʔaǰuθəm. In English, "door" refers to both the door and the doorway, but predominantly the door; if a doorway has no door, it is strange to call it a door at all, let alone talk about it being open or closed. In ʔayʔaǰuθəm, however, the word *ʔɛmɛn* to which door usually translated seems to refer to guided thoroughfares more generally, and can be used to refer to doorways without doors. It can also refer to paths and roads, in which case the words *gəq́* and *təq* (translations of "open" and "close") have the more general meanings "clear" and "block".

(66) wutɛt tə ǰɛʔǰɛ, tɛʔɛ naɱs ƛoɫoɫ

√**wút-ít** tə=√ǰáʔja, táʔa √náɱ=s √ƛúɫ-uɫ

get.bent-STVDET=tree, DEM image=3POS grow-PST

"The tree is **bent**, it grew like that."

Context: Describing a picture of a tree that grew with a bend on the trunk.

   (JF; MW; KG)

(67) ✪ ʔuwk̓ʷ šiyɛp tə t̓aq̓t̓, tɛʔɛ naɱs pɛyot nɛʔoɫ

√**ʔúwk̓ʷ** √**šə́y\<i\>p** tə=√t̓áq̓t̓, táʔa √náɱ=s páya=ʔut

all **get.lined.up\<STV\>**DET=mountain, DEM image=3POS always=CLT

   √ní?-uɫ

   be.there-PST

"The mountains are all **lined up**, they've always been this way."

Context: Describing a picture of mountains naturally lined up neatly by a lake.

   (JF)

(68) k̓ʷaq̓ɛt t̓aq̓t̓, tɛʔɛ naɱs pɛyot nɛʔoɫ

√**k̓ʷə́q̓-it** √t̓áq̓t̓, táʔa √náɱ=s páya=ʔut √ní?-uɫ

get.split-STV mountain, DEM image=3POS always=CLT be.there-PST

"The mountain is **split**, it has always been this way."

Context: Describing a picture of a mountain with a split peak.

   (JF)

(69) p̓əsɛxʷ tə saplɛn, tɛʔɛ naɱs hiytəm

√**p̓ə́s\<i\>xʷ** tə=√sáplin, táʔa √náɱ=s √hə́y-t-əm

get.deflated\<STV\>DET=bread, DEM image=3POS get.made-CTR[3OBJ]-PASS

"The bread is **flat**, it is made like this."

Context: Describing a picture of some tortillas.

   (JF)

(70) pəχɛt tapnɛč, tɛʔɛ naḿs hiytəm

√pə́χ-it   √tə́pnač,   tə́ʔa √náḿ=s   √hə́y-t-əm

get.torn-STV   pants,   DEM image=3POS   get.made-CTR[3OBJ]-PASS

"The pants are **torn**, they are made like this."

Context: Describing a picture of jeans that are already ripped when you buy them.

    (JF)

(71) ⊛ ǰɛχʷɛt chocolate, qaǰɛʔot xʷaʔ hoǰɛt

√ǰáχʷ-ít   "chocolate",   qáǰi=ʔut   xʷaʔ √húǰ-ít

get.melted-STV   chococalte,   still=CLT   NEG   get.finished-STV

"The chocolate is **molten / melted**, it is not ready yet."

Context: Describing a picture of molten chocolate in a factory, which has not been solidified yet.

    (JF)

(72) qəmɛs tə ʔaχɛθawtxʷ, xʷaʔ čɛmɛs yəq́ɛšit

√qə́m<i>s   tə=√ʔáχiθawtxʷ, xʷaʔ čám=as   √yə́q́-aš-it

get.put.away<STV> DET=bedroom,   NEG   MOD=3CNJ get.used-TR[3OBJ]-PASS

"The room is **organised**, it has never been used."

Context: Describing a picture of a new hotel room that has never been occupied.

    (JF)

(73) ⊛ ǰɛq́ɛt tə ǰɛʔǰɛ, tɛʔɛ naḿs ƛ́ołoł

√ǰáq́-ít   tə=√ǰáʔja, tə́ʔa √náḿ=s   √ƛ́úł-uł

fall.over-STV DET=tree, DEM image=3POS   grow-PST

"The trees are **fallen over / on a lean**, they grew that way."

Context: Describing a picture of a bunch of trees in an extremelly windy place that all grew on a lean in the direction of the wind.

    (JF)

(74) ⊛ ǰɛχɛt ʔɛyɛ, qaǰɛʔot xʷaʔ hiytəm

√ǰíχ-ít   √ʔáya,   qáǰi=ʔut   xʷaʔ   √hə́y-t-əm

fall.apart-STV   house,   still=CLT   NEG   get.built-CTR[3OBJ]-PASS

"The house is **destroyed**, it is still not built."

"(The material for) the house is **scattered around**, it is still not built."

Context: Describing a picture of a disorganised pile of materials before a house gets built

that makes it look like a house was destroyed there.

(JF; MH; MW; KG)

One possibility, which is very difficult to test, is that stativized predicates with pure stative readings express the result states of events which are somehow remote; that they do entail an originating event, even though it may be temporally remote or irrelevant to the conversation, or perhaps that they are coerced into a pure stative reading (H. Davis, p.c.). In example (67), for instance, it could be that the stativizer asserts the existence of an event which caused the mountains to become lined up at some point in the past, while saying nothing about what that event actually was.

A possible argument against this hypothesis arises out of a subset of eventive roots which seem to encode both a process and a transition into a state, such as √ṗə́ƛ̓š "rise to the surface" and √χáƛ "(rope-like object) break by overstretching". Example (75) shows that √ṗə́ƛ̓š is accepted describing a duck emerging from under the water, but not for a bird landing onto it. Similarly, example (76) shows that √χáƛ is accepted describing a rope being pulled apart by two people, but not a rope being cut with scissors.

(75a) ṗəṗə́ƛ̓š kʷaχʷwaχ

ṗə́~√ṗə́ƛ̓š   √kʷákʷwaχ

PROG~**rise.to.surface**   duck

"The duck is rising out of the water."

"The duck is landing in the water."

(b) kʷʊkʷʔam kʷaχʷwaχ

  kʷə́~√kʷʔ-am　　　√kʷákʷwaχ

  PROG~land-MD　　duck

  # "The duck is rising out of the water."

  "The duck is landing in the water."

  Context: Comparing a well-timed picture of a duck as it emerges out of a dive against one

  of a duck just as it lands in the water.

  　　(JF)

(76a) χaƛʊxʷəm tə χʷɛẃʊm

  √χáƛ-əxʷ-əm　　　　　　　　tə=√χʷíẃəm

  get.ripped.apart-LCTR[3OBJ]-PASS DET=rope

  "The rope has been **ripped apart**."

  # "The rope has been **cut**."

(b) k̓ɪpʊxʷʊm tə χʷɛẃʊm

  √k̓ə́p-əxʷ-əm　　　　tə=√χʷíẃəm

  get.cut-LCTR[3OBJ]-PASS DET=rope

  # "The rope has been **ripped apart**."

  "The rope has been **cut**."

  Context: Comparing a picture of a rope breaking as two people pull on it against one of a

  rope being cut with scissors.

  　　(JF)

However, the stativized predicates built from these roots can describe states that do not

originate from their respective process, as shown in examples (77) and (78).

(77) ⊛ p̓əƛ̓ɛš tə sɛýjɛ, pʊqʷsiyišoł

  √p̓ə́ƛ̓<i>š　　　　　　tə=√sáýǰa,　　√pə́qʷs-iyiš-uł

  rise.to.surface<STV>　　DET=leaf,　　fall.in.water-AUT-PST

  "The leaf is **on the surface** (of the water), it fell in."

  Context: Accepted as a description of a picture of a leaf on the surface of a pond, described

  to have fallen in.

  　　(JF)

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(78) χaλɛt tə χʷɛwʊm, k̓ɩpʊxʷan

    √χáƛ-ít   tə=√χʷíwəm, k̓ə́p-əxʷ-an

    get.ripped.apart-STV   DET=rope,   get.cut-LCTR[3OBJ]-1S.ERG

    "The rope is **severed**, I cut it."

    Context: Describing camping rope that was previously cut with a knife.

       (JF)

Not all stativized verbs of result are easily accepted in pure stative contexts; some appear instead to be more strictly resultative. Examples (79-83) illustrate some of these predicates. Most of these were corrected to other forms in pure stative contexts, which are also given in each example.

(79a) kʷʊɬɛt qayɛ, **#** kʷu ƛ̓əƛ̓q qayɛ ƛ̓ɛpnɛč

    √kʷə́ɬ-it   tə=√qáya,   kʷu=ƛ̓ə~√ƛ̓q   √qáya   √ƛ̓íp-nač

    get.spilt-STV   DET=water,   CLT=PROG~come.out   water   under-bottom

    "The water is **spilt**, **#** it has been coming up through the floor."

(b)   ⊛ k̓ʷɛʔɛt qayɛ, kʷu ƛ̓əƛ̓q ɬ qayɛ ƛ̓ɛpnɛč

    √k̓ʷíʔit[20]   √qáya,   kʷu=ƛ̓ə~√ƛ̓q   √qáya   √ƛ̓íp-nač

    on.ground water,   CLT=PROG~come.out   water   under-bottom

    "The water is **on the ground**, it has been coming up through the floor."

    Context: Describing a picture of a puddle of groundwater pooling up through the concrete in someone's basement.

       (JF)

(80a) ƛ̓opɛt θ čɛńo, **#** xʷaʔ čɛmɛs kʷʊkʷtəm

    √ƛ̓úp-ít   θ=√čáńu,   xʷaʔ   čam=as   kʷə́~√kʷt-əm

    get.healed-STV   2S.POS=dog,   NEG   MOD=3CNJ   PROG~sick-MD

    "Your dog is **healed up**, **#** she's never sick."

---

[20] It is possible that this predicate breaks down into ∥√k̓ʷíʔ-ít∥ (with a stativizer), though the meaning of the hypothetical root √k̓ʷíʔ is unclear; is could be related to k̓ʷɛʔɛš "stand up" ∥√k̓ʷíʔ-iš | stand.up-INTR∥, k̓ʷɛtəm "above" ∥√k̓ʷít-əm | above-MD∥, or k̓ʷɛtɛčɩn "top (of something)" ∥√k̓ʷít-ičən | above-back∥.

(b) ⚼ ʔiɣ́mot θ čɛ́ńo, xʷaʔ čɛḿɛs kʷʊkʷtəm

    √ʔə́ɣ́-mut   θ=√čáńu,   xʷaʔ   čam=as   kʷə́~√kʷt-əm

    good-very   2S.POS=dog,   NEG   MOD=3CNJ   PROG~sick-MD

    "Your dog is **healthy**, she's never sick."

    Context: Talking about the interviewer's dog.

        (JF)

(81a) hɛgɛt qayɛ, **?** xʷaʔ čɛmɛs čuńčumoł

    √hág-ít   √qáya,   xʷaʔ čam=as   čəḿ~√čəm-uł

    get.heated-STV   water,   NEG MOD=3CNJ CHAR~cold-PST

    "The water is **heated, ?** it has never been cold."

(b) ⚼ ḱʷas qayɛ, xʷaʔ čɛmɛs čuńčumoł

    √ḱʷas   √qáya,   xʷaʔ čam=as   čəḿ~√čəm-uł

    hot   water,   NEG MOD=3CNJ CHAR~cold-PST

    "The water is **hot**, it has never been cold."

    Context: Describing the naturally hot water of a thermal pool, which has hypothetically

    never been cold.

        (JF)

(82a) mɛ́čɛt tə ǰɛnxʷ

    √máč-ít   tə=√ǰánxʷ

    get.greased-STV   DET=fish

    "The fish is **greased up**."

    # "The fish is (naturally) **greasy**."

(b) ⚼ xʷɛłɛm tə ǰɛnxʷ

    √xʷíł-im   tə=√ǰánxʷ

    greasy-MD   DET=fish

    "The fish is **greasy** (naturally or not)"

    Context: Describing a picture of some very greasy salmon.

        (JF)

(83a) čǝχɛt tǝ ʔɛɬtǝn

    √čáχ-ít   tǝ=√ʔíɬtǝn

    get.cooked-STV   DET=food

    "The food is **cooked**."

    # "The food (naturally) **ready to eat**."

(b)   ⊛ hoǰɛt tǝ ʔɛɬtǝn

    √húǰ-ít   tǝ=√ʔíɬtǝn

    get.finished-STV   DET=food

    "The food is (naturally) **ready to eat**."

    Context: Describing a picture of salad, fruits, berries, etc.

        (JF)

Only one root was rejected in a pure stative context without such a correction, given in (84).

(84)   **??** ƛ̓ak̓ʷɛt nɛk̓ʷɛyɛ, qaǰɛʔot χaẃs

    √ƛ̓ák̓ʷ-ít   √nák̓ʷaya,   qáǰi=ʔut   √χáẃs

    get.extinguished-STV   light,   still=CLT   new

    "The light is **turned off**, it is still new."

    Context: Describing a new lightbulb that has never been turned on.

        (JF)

Post-state readings were somewhat difficult to obtain. Attempting to obtain them alongside stative or resultative examples almost always failed. The pragmatics involved in post-stative readings are not well understood, which for many predicates makes it difficult to design contexts where they are likely. Furthermore, the complexity required of a context before a post-stative reading obtains leaves a lot of room for misinterpretation.

Five roots were targeted for more elaborate tests, chosen partially because they were the easiest to contruct a pragmatically likely post-stative context for, and for some of them because in English the post-stative and pure stative forms are morphologically different, making it possible to create an implicit contrast during the elicitation.

The five roots tested are given in (85-89). These tests worked surprisingly well, and four of these yielded strongly positive judgements despite having them explicitly pointed out to be eccentric uses of the stativized predicates. However, none were spontaneously produced in the contexts given. Nevertheless, these examples show that post-stative readings at least appear to be available for stativized predicates in ʔayʔaǰuθəm.[21]

(85) gəq̓ɛt tə məmqɛyustən, xʷaʔčxʷ qǰɛ naʔataxʷ

√**gə́q̓-it** tə=√mə́mqayustən, xʷaʔ=čxʷ=qǰi √náʔ-at=axʷ

get.opened-STV DET=window, NEG=2S.IND=again get.done-CTR[3OBJ]=2S.CNJ

"The window is **opened** (already), you don't (need to) do it again."

Context: One co-worker telling another that the hourly job of opening the window for a few minutes then closing it again to freshen up the air has already been done. [Window is opened but no longer open]

(JF)

(86) ǰɛq̓ɛt šə ǰɛʔǰɛ, ʔiy gət̓θɛt

√**ǰáq̓-ít** šə=√ǰáʔǰa, ʔiy √gət̓θ-it

fall.over-STV DET=tree, and get.chopped-STV

"The tree is **felled** and chopped up (already)."

Context: One lumberjack informing another that a tree that was to be cut down and chopped up has already been worked on. [Tree is felled but no longer fallen over]

(JF)

(87) qəmɛs šə ʔɛɬtən, ʔuwk̓ʷ kʷu yəq̓təm

√**qə́m<i>s** šə=√ʔɛɬtən, √ʔúwk̓ʷ kʷu=√yəq̓-t-əm

get.put.away<STV> DET=food, all CLT=get.bought-CTR[3OBJ]-PASS

"The food is **put away**, it has all been bought up (already)."

Context: A store supervisor asks an employee if he finished his assigned task of putting away the food, which he has, but the food has already been all taken away by customers. [The food is put away but no longer in its storage space]

(JF)

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[21] It is possible that these stative predicates are simply interpreted in the past, as the language does not always distinguish between present and past tense. However, if this is the case, it did not come across in the discussions about these predicates with the consultant or her translations.

53

(88) ƛ̓ɛk̓ʷɛt nɛkʷɛyu, xʷaʔčxʷ qǰɛ naʔataxʷ

    √**ƛ̓ák̓ʷ-it**   √nákʷayu,   xʷaʔ=čxʷ=qǰi   √náʔ-at=axʷ

    get.extinguished-STV   light,   NEG=2S.IND=again   get.done-CTR[3OBJ]=2S.CNJ

    "The lights are **turned off** (already), you don't (need to) do it again."

    Context: One coworked telling another that the daily job of turning off the lights to reset a faulty fuse in the middle of the day has already been done. [Lights are turned off but no longer off]

        (JF)

(89) **#** ƛ̓opɛtč, ʔiy kʷʊtəmuɬč qǰɛ[22]

    √**ƛ̓úp-ít**=č   ʔiy   √kʷə́t-əm-uɬ=č=qǰi

    get.healed-STV=1S.IND   and   get.sick-MD-PST=1S.IND=again

    Context: Someone is asked if they are healed from some sickness, but they have become sick with something else in the meantime. [Is healed but no longer healthy]

        (JF)

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[22] This may have been rejected due to misunderstood lexical semantics of the root √ƛ̓úp "get healed"; e.g. it could relate more specifically to the healing of wounds than illnesses in general.

Chapter 5   Formal Analysis

In this chapter, a formal approach to the data presented in **§4 The ʔayʔaǰuθəm Stativizer** is presented. This analysis aims to capture within the model-theoretic framework the conditions under which a stativized predicate may be interpreted as pure stative, resultative, or post-stative.

In essence, the analysis states that the different possible readings of a stativized predicate arise purely from pragmatics of the context and conversation in which it is used: **a stativized predicate denotes the contextually *most informative* of the states conceptually related to the underlying eventive predicate by causality.**

While this analysis focuses on and relates to data in ʔayʔaǰuθəm, it may also be applicable to adjectival participles in English. It contrasts with previous approaches in that no syntactic ambiguity is required to explain the different possible readings of a stativized predicate; these are instead derived by a pragmatic mechanism that is distinct from the syntactic machinery. Only one morpheme in one position is necessary to account for all readings of a stativized predicate.

5.1   EXCESS Function

The first thing that needs to be explored is what it means for a state to be *conceptually related to an eventive predicate by causality*. In short, if a state Q is conceptually related to an eventive predicate P by causality, it is *logically impossible* for a P eventuality to *not* cause a Q eventuality. What is important to note about this relation between a state and an event to understand the pure stative readings of stativized predicates is that it is not symmetric: if Q is conceptually related to P by causality, it is not the case that every Q eventuality must be caused by a P eventuality.

This idea is formalized as an operator EXCESS which probes the various possible extensions of an eventive predicate for a set of states conceptually related to it by causality. Let this set of states be called the *excess* of an eventive predicate, in the sense that these states are "left behind" by instantiations of the predicate. For a predicate concept $P_{\langle s,\langle v,t\rangle\rangle}$, the EXCESS of P is then the set of stative predicate concepts Q which are related to P by causality in all possible worlds. This is formalized in (133).

(90) $\forall P_{\langle s,\langle v,t\rangle\rangle}\Big[\text{EXCESS}(P) =$

$\Big\{Q_{\langle s,\langle v,t\rangle\rangle}\Big|\forall w\Big[\text{STATIVE}\big(Q(w)\big) \wedge \forall e\big[P(w)(e) \rightarrow \exists e'[Q(e')(w) \wedge \text{CAUSE}(e,e')]\big]\Big]\Big\}\Big]$

A set of predicate-concepts…	… which are stative in every possible world…	… such that every P eventuality in every world causes a Q eventuality in that world.

For every predicate concept $P_{\langle s,\langle v,t\rangle\rangle}$, the EXCESS of P is the set of stative predicate concepts $Q_{\langle s,\langle v,t\rangle\rangle}$ such that every eventuality e in the extension of P in each possible world w causes an eventuality e' in the extension of Q in w.

There may be additional restrictions on what states can be part of the EXCESS (e.g. only those predicate concepts which satisfy yet-unknown restrictions on natural predicates), but to exhibit the present proposal clearly this definition is sufficient. For similar considerations of clarity and exposition, excess is used extensionally *ad hoc* in the subsequent formalism, despite being defined intensionally.

To illustrate what the EXCESS of a predicate is more concretely, consider the English predicate $P = $ *build a house*. The EXCESS of P will contain the state of the house building event having culminated (the post-state), the house being erect (the pure state), and the conjunction of the house being erect and the building event having culminated (the resultative). It will also contain the *disjunction* of the house being erect and the building event having culminated, which can be called the *disjunctive* reading; however, it is not clear if it is possible for it to ever be the most informative reading; it seems to be an accident of the formalism, so it is included here only for completeness.

Because the EXCESS operator quantifies over *all* possible worlds, it considers even strange imaginable worlds where a powerful creature *builds a house* by snapping its fingers to bring a house into existence, and literally nothing else happens in the entire universe in that world. This means that states which are caused incidentally, even typical incidental states such as builders being tired, are systematically filtered out.

The stativizer denotes the *infimum* of this set of states given an ordering $\leqslant_{info(c)}$ based on *informativeness* in a context c (such that $Q \leqslant_{info(c)} Q'$ means that Q is at least as informative as Q' in c).[23] This ordering is elaborated shortly.

It is not entirely clear if the stativizer is a lexical or a phrasal morpheme, or that showing it to be in one position in one language would be consequential for any other, but only one stativizer in one syntactic position is required to account for the pure stative-resultative ambiguity in stativized predicates in ʔayʔaǰuθəm (and in English).

(91) $\llbracket\text{STV}\rrbracket^{g,w,c} = \lambda P_{\langle e,\langle v,t\rangle\rangle}\lambda x\lambda e\big[\inf_{info(c)}\big[\text{EXCESS}(P(x))\big](e)\big]$ (Lexical stativizer)

$\llbracket\text{STV}\rrbracket^{g,w,c} = \lambda P_{\langle v,t\rangle}\lambda e\big[\inf_{info(c)}\big[\text{EXCESS}(P)\big](e)\big]$ (Phrasal stativizer)

For every predicate $P_{\langle v,t\rangle}$, the stativizer STV returns the most informative stative predicate Q in the EXCESS of P in a context c.

Figure 8 and figure 9 illustrate the structure of the VP given either of these morphemes, assuming the phrasal stativizer merges at the head of Travis' (2010) Inner Aspect phrase (IAspP). Note that the denotations of the two trees are identical.

VP
<v,t>
$\lambda e[\inf_{info(c)}[\text{EXCESS}(\lambda e'[\text{verb}(\text{patient},e')])](e)]$

V   patient
<e,<v,t>>   e
$\lambda x\lambda e[\inf_{info(c)}[\text{EXCESS}(\lambda e'[\text{verb}(x,e')])](e)]$

verb root   STV
<e,<v,t>>   <<e,<v,t>>,<e,<v,t>>>
$\lambda x\lambda e[\text{verb}(x,e)]$ $\lambda P\lambda x\lambda e[\inf_{info(c)}[\text{EXCESS}(P(x))](e)]$
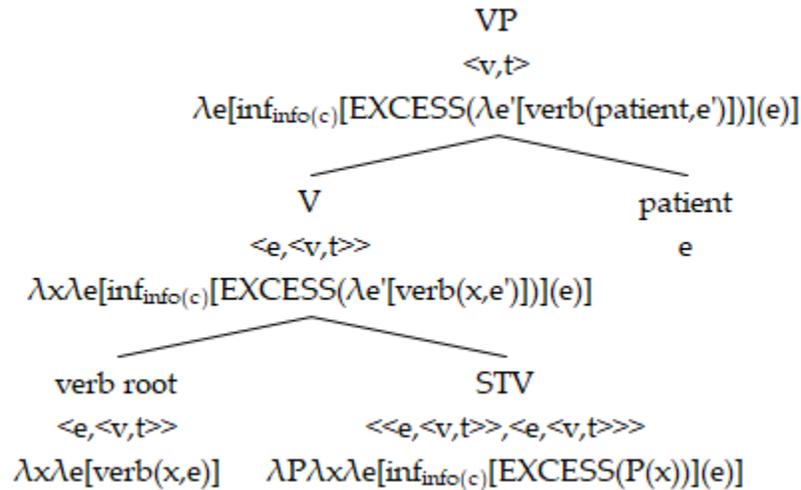
Figure 2: Lexical stativizer merging directly to the root in the lexicon

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[23] Note that this is similar to positing a choice function over the excess, as Reinhart (1997) does to derive the extension of specific indefinites. Constructing it as an ordering among the states better illustrates what is happening in the pragmatics.
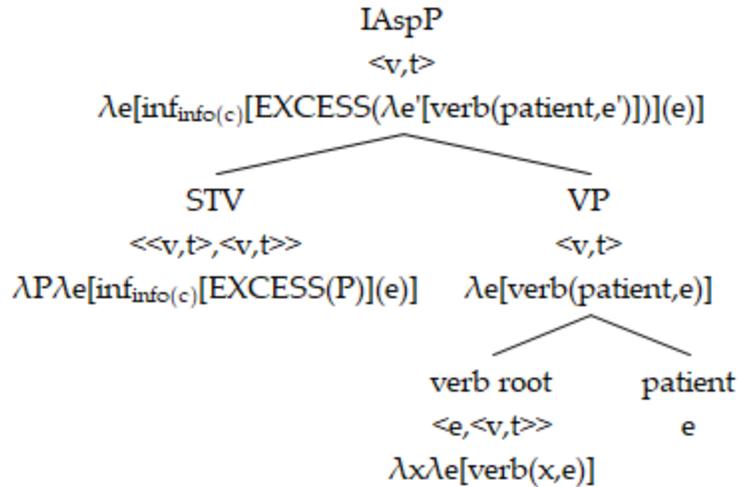
IAspP

$\langle v,t\rangle$

$\lambda e[\inf_{\text{info}(c)}[\text{EXCESS}(\lambda e'[\text{verb}(\text{patient},e')])](e)]$

STV

$\langle\langle v,t\rangle,\langle v,t\rangle\rangle$

$\lambda P\lambda e[\inf_{\text{info}(c)}[\text{EXCESS}(P)](e)]$

VP

$\langle v,t\rangle$

$\lambda e[\text{verb}(\text{patient},e)]$

verb root

$\langle e,\langle v,t\rangle\rangle$

$\lambda x\lambda e[\text{verb}(x,e)]$

patient

e

Figure 3: Phrasal stativizer merging above the VP in IAspP

5.2   Informativeness

The notion of informativeness here relates to Grice's (1975) cooperative principle: "make your conversational contribution such as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which you are engaged" (p. 45). Under the current definition, an utterance is *more informative* than another if it is a more complete answer to the question under discussion (Roberts, 1996), or if it contains less superfluous information.

The formal notion of a question under discussion (QUD) employed here is somewhat simpler than the fully elaborated notion outlined by Roberts (1996), but it suffices for the present purpose. The QUD is considered a contextually salient set of *q-alternatives*: unvalued propositions which the interlocutors of a discourse attempt to value (directly or through entailment/implicature). A *partial answer* to the QUD is thus an assertion that values a subset of the unvalued propositions, and a *complete answer* is an assertion that values all the propositions in the QUD. An assertion is a *more complete answer* to the QUD than another if the number of propositions it values is greater. Superfluous information is any entailment or implicature of an assertion which has no relevance to the QUD.

Superfluous information cannot be quantified straightforwardly. It arises out of a competition between the states in the EXCESS of a predicate to be as relevant as possible to the QUD. If a QUD requires an answer about a current state and does not concern its origin, the resultative state is superfluous in comparison to the pure state, and is thus less informative.

However, superfluousness can come from more than just the competition between the states in the excess of a predicate to answer the QUD: if a derived stative predicate encroaches the natural domain of an existing simpler stative predicate, it is lexically "blocked" by the simpler form. This is because the Maxim of Manner (Grice, 1975) requires interlocutors to be brief, avoiding obscurity and ambiguity, which generates a pressure for a differential between the derived stative and any simpler predicate, prompting an interpreter to account for the presence of the stativizer as a *markedness implicature*: " ... the speaker seems to have gone out of his way to avoid using the unmarked expression and so must be trying to avoid whatever the unmarked expression would suggest" (Levinson, 2000, p. 137).

Formally, this markedness implicature manifests itself as a penalization of the informativeness of the pure stative reading, leading to a resultative interpretation. Only if no such simpler predicate exists to block the pure stative reading does the pure stative reading become available to the stativized stem. See **§5.4** for a closer exploration of this mechanism.

5.3 Lexical Blocking

This section explores the lexical blocking interaction between stativized predicates and stative roots or simpler predicates which are similar in meaning. It is assumed that there is some sort of markedness hierarchy concerning the complexity of a form which drives this blocking (Rullmann, p.c.), where bare roots and some derived predicates outrank stativized predicates. Explicating the exact nature of this hierarchy, and how some derived predicates can outrank stativized predicates (e.g. √χʷíɬ-im "greasy", derived with a middle voice marker, outranks √máč̓-ít "greased"), is left for future work.

Consider the stativized ʔayʔaǰuθəm predicate in example in (92). It can receive a pure stative reading, as can its English translation; this is because in both languages, the stativized predicate does not encroach on the natural domain of any other root or simpler predicate. There is no simpler stative predicate that indicates that a window is simply closed without alluding to a closing event, so the reading is available to the stativized stem without triggering a markedness implicature.

(92) təqɛt mamqɛyustən, xʷaʔ čɛmɛs gəq́

　　√tə́q-it　　　tə=√mə́mqayustən, xʷaʔ čam=as　　√gəq́

　　close-STVDET=window,　　　NEG　MOD=3CNJ　get.opened

　　"The window is **closed**, it cannot be opened."

　　Context: Describing a picture of a window built in such a way as it cannot be opened.

　　　(JF; MH; MW; KG)

This can be seen more clearly in example (93), where the stativized predicate easily receives a pure stative reading in ʔayʔaǰuθəm, but the participle *buried* in the English translation is much more easily interpreted as resultative. This is due to a markedness implicature arising from the semantically simpler root *underground*, which was preferred by several native English speakers in the context given.

(93) pənɛt tə χaǰɪys, pɛyot nɛʔoɬ tɛʔɛ

　　√pə́n-ít　　　　tə=√χə́ǰəys,　páya=ʔut　　√níʔ-uɬ　　　tə́ʔa

　　get.buried-STV　DET=rock,　　always=CLT　be.there-PST　DEM

　　"The rock is **buried / underground**, it has always been there."

　　Context: Describing a picture of a rock underground, explained to have always been there.

　　　(JF; MH; MW; KG)

It seems that there is no root or simpler predicate with the same meaning as the English *underground* in ʔayʔaǰuθəm; consultants would always give a paraphrase such as (94) when prompted to translate it. However, it is impossible to actually prove that no such word exists. As the paraphrase is not a simpler construction than the stativized predicate, it does not cause blocking.

(94) ƛ̓ɛpəm χaǰɪys gɪǰɛ

　　√ƛ̓íp-əm　　√χə́ǰəys　　√gə́ǰa

　　below-MD　　rock　　　earth

　　"The rock is under the ground."

Example (95) shows a case where only a resultative reading is available for a stativized predicate both in ʔayaǰuθəm and its translation in English. The pure stative reading of √mə́č-ít "be greased" is to be blocked by √xíɬ-im "be greasy" in the ʔayʔaǰuθəm example, and similarly a pure stative reading of "be greased" is blocked by "be greasy" in the English translation.

(95a) mɛč̓ɛt tə ǰenxʷ

√máč̓-ít   tə=√ǰánxʷ

get.greased-**STV**   DET=fish

"The fish is **greased up**."

"The fish is (naturally) **greasy**."

(b)   xʷɛɫɛm tə ǰenxʷ

√xʷíɫ-im   tə=√ǰánxʷ

greasy-**MD**   DET=fish

"The fish is **greasy** (naturally or not)"

Context: Describing a picture of some very greasy salmon.

The EXCESS of every eventive predicate contains the state of it having culminated; the post-state. However, because the information a post-state conveys boils down to asserting the existence of an event in the extension of the underlying predicate, it is rarely more informative than a simple past; the contribution of the stativizer to the conversation is thus difficult to ascertain, which violates the Maxim of Manner (Grice, 1975). Only in cases where the stativity of a post-state conveys recency or topicality can it be informative, which is the reason stativized predicates denoting post-states rarely obtain.

5.4   Example Computations

Figure 4 shows the structure of the stative VP in example (96), assuming a lexical stativizer and a simplified choice-functional account of the Salish determiner (Reinhart, 1997; Matthewson, 1999). Note, however, that it makes no difference for the structure of the tree or the semantic derivation within it if the example is read as stative or resultative, as the distinction is made in the pragmatics of the context (and the pressures of the lexicon) rather than in the syntax or semantic calculus.

(96)   gəq̓ɛt tə məmqɛyustən

√gə́q̓-it   tə=√mə́mqayustən

get.opened-**STV**   DET=window

"The window is open(ed)."

VP
<v,t>
$\lambda e[\inf_{\text{info}(c)}[\text{EXCESS}(\lambda e'[\text{get.opened}(f_c\{x|\text{window}(x)\}, e')])](e)]$

V
<e,<v,t>>
$\lambda x \lambda e[\inf_{\text{info}(c)}[\text{EXCESS}(\lambda e'[\text{get.opened}(x,e')])](e)]$

DP
e
$f_c\{x|\text{window}(x)\}$

√gə́q'
<e,<v,t>>
$\lambda x \lambda e[\text{get.opened}(x,e)]$

STV
<<e,<v,t>>,<e,<v,t>>>
$\lambda P \lambda x \lambda e[\inf_{\text{info}(c)}[\text{EXCESS}(P(x))](e)]$

tə
<<e,t>,e>
$\lambda P_{<e,t>}[f_c\{x|P(x)\}]$

√mə́mqayustən
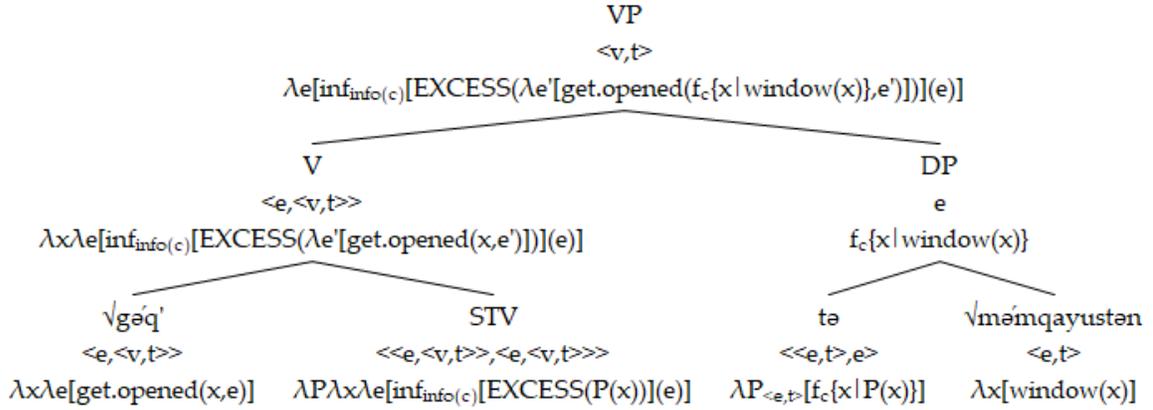<e,t>
$\lambda x[\text{window}(x)]$

Figure 4: Structure and computation of example (140)

The EXCESS can be calculated independently of any context and is given in (97). A version of it in less formal language is given in (98), but keep in mind that the English used within it for the sake of clarity does not accurately represent the exact semantics of the ʔayʔaǰuθəm example. In fact, this example was chosen precisely because of a discrepancy between the two languages: in English, the root "open" is ambiguous between an adjective denoting a pure state and a verb denoting a transition, while the analogous ʔayʔaǰuθəm root √gə́q is strictly eventive. This lexical discrepancy makes it easier to illustrate the mechanism being employed in this analysis.

The excess contains the pure state [a], the post-state [b], the resultative state [c], and the (never realized) disjunctive reading [d].

(97) EXCESS$(\lambda e[\text{get.opened}(f_c\{x|\text{window}(x)\}, e)]) =$

$\{\lambda e[\text{open}(f_c\{x|\text{window}(x)\}, e)],$ [a]

$\lambda e \exists e'[\text{get.opened}(f_c\{x|\text{window}(x)\}, e') \wedge e' \ll e],$ [b]

$\lambda e \exists e'[\text{open}(f_c\{x|\text{window}(x)\}, e) \wedge \text{get.opened}(f_c\{x|\text{window}(x)\}, e') \wedge e' \ll e],$ [c]

$\lambda e \exists e'[\text{open}(f_c\{x|\text{window}(x)\}, e) \vee \text{get.opened}(f_c\{x|\text{window}(x)\}, e') \wedge e' \ll e]\}$ [d]

(98) EXCESS$([\![\text{the window opens}]\!]^{c,g,w}) =$

$\{[\![\text{the window is open}]\!]^{c,g,w},$ (pure stative reading) [a]

$[\![\text{the window is opened}]\!]^{c,g,w},$ (post-stative reading) [b]

$[\![\text{the window is open } and \text{ the window is opened}]\!]^{c,g,w},$ (resultative reading) [c]

$[\![\text{the window is open } or \text{ the window is opened}]\!]^{c,g,w}\}$ (disjunctive reading) [d]

To compute which of these readings the stativized predicate receives, it must be placed in a context where the QUD provides an appropriate set of q-alternatives to order the states in the excess of the underlying eventive predicate.

Context 1 (c1):

The windows in a small store must be kept closed to allow the air conditioner to work efficiently. However, the air gets stale, so the employees are tasked with opening it briefly then closing it again every hour. One does so, then tells his workmate *gəq́ɛt tə məmqɛyustən* to inform her that the job is done for the next hour.

The QUD in this context is not concerned with the current state of the window, but rather the completion state of a recent iteration of a recurring task, which happens to be to open the window. The QUD thus contains the unvalued proposition "the opening window task is completed"; for the sake of clarity, this is represented in (99) as a full question. Other unvalued propositions in the QUD in c1 may include whether or not the sales target has been reached, etc.

(99) $\text{QUD}_{c1} = \{$**is the opening window task completed?**, have we reached our sales target?, ... $\}$

Given this QUD, the pure state [a] is entirely superfluous. The post-state [b] evaluates one q-alternative. The result state [c] evaluates one q-alternative but contains superfluous information about the current state of the window. The disjunction [d] is potentially relevant, but at best contains superfluous information. Thus, the informativeness ordering in Context 1 is [b] $\prec_{\text{info}(c1)}$ [c] $\prec_{\text{info}(c1)}$ [d] $\prec_{\text{info}(c1)}$ [a], the infimum of which is the post-state [b].

The formula in (100) derives the extension of the stativized predicate at the VP level in Context 1 by calculating the contextual informativeness infimum of the excess of the eventive predicate, which was shown to be the post-state.

(100) $[\![\text{gəq́ɛt tə məmqɛyustən}]\!]^{c1,g,w}$

$= \lambda e \big[\text{inf}_{\text{info}(c1)}[\text{EXCESS}(\lambda e'[\text{get.opened}(f_{c1}\{x|\text{window}(x)\}, e')])](e)\big]$

$= \lambda e \Big[[\lambda e' \exists e''[\text{get.opened}(f_{c1}\{x|\text{window}(x)\}, e'') \wedge e'' \ll e']](e)\Big]$

$= \lambda e \exists e'[\text{get.opened}(f_{c1}\{x|\text{window}(x)\}, e') \wedge e' \ll e]$

Example (101) shows that this is indeed the reading that obtains in this context.

(101) gəq́ɛt tə məmqɛyustən, xʷaʔčxʷ qǰɛ naʔataxʷ

    √gə́q́-it   tə=√mə́mqayustən, xʷaʔ=čxʷ=qǰi   √ná ʔ-at=axʷ

    get.opened-STV   DET=window,   NEG=2S.IND=again get.done-CTR[3OBJ]=2S.CNJ

    "The window is **opened** (already), you don't (need to) do it again."

    Context: One coworked telling another that the hourly job of opening the window for a few minutes then closing it again to freshen up the air has already been done. [Window is opened but no longer open]

      (JF)

Context 2 (c2):

    Another day, the boss notices that the store is unusually hot despite the air conditioner running really hard. He then notices that the windows are open for some reason, uttering angrily *gəq́ɛt tə məmqɛyustən!*

The QUD in this context is concerned only with the current state of the window, and not the existence of some opening event.

(102) $\text{QUD}_{c2} = \{$**what is causing the aircon to fail?**, have we sold enough teaspoons today?, … $\}$

Under this QUD, the pure state [a] evaluates one q-alternative, the post-state [b] is entirely superfluous, the result state [c] evaluates one alternative but contains superfluous information, and the disjunction [d] is potentially relevant, but at best contains superfluous information. The informativeness ordering in Context 2 then turns out to be [a] $\prec_{\text{info}(c2)}$ [c] $\prec_{\text{info}(c2)}$ [d] $\prec_{\text{info}(c2)}$ [b], the infimum of which is the pure state [a]. The formula in (103) then shows the computation of the stativized predicate at the VP level in Context 2, yielding a pure state.

(103) $[\![\text{gəq́ɛt tə məmqɛyustən}]\!]^{c2,g,w}$

$= \lambda e\big[\inf_{\text{info}(c2)}[\text{EXCESS}(\lambda e'[\text{get.opened}(f_{c2}\{x|\text{window}(x)\}, e')])](e)\big]$

$= \lambda e\Big[\big[\lambda e'[\text{open}(f_{c2}\{x|\text{window}(x)\}, e')]\big](e)\Big]$

$= \lambda e[\text{open}(f_{c2}\{x|\text{window}(x)\}, e)]$

Context 3 (c3):

    In another nearby store, there is no air conditioning at all. In fact, the first thing on the to-do

list every day in the summer is to open all the windows, else the shop quickly gets very hot. An employee does this and tells his boss *gəq́ɛt tə məmqɛyustən* to inform her that the job is done, and the windows are now open and ready for the day.

The QUD in this context is concerned with both the current state of the window and the completion state of a recent iteration of a recurring task.

(104) $\text{QUD}_{c3} = \{$**is the daily opening window task completed?**, **are the windows open?**, ...$\}$

Under this QUD, the pure state [a] evaluates one q-alternative, the post-state [b] evaluates another q-alternative, the result state [c] evaluates two q-alternatives, and the disjunction [d] evaluates one *or* two, which is not as informative as definitively evaluating two. The ordering is thus [c] $\prec_{\text{info}(c3)}$ [d] $\prec_{\text{info}(c3)}$ [a] $=_{\text{info}(c3)}$ [b], where [a] and [b] are equivalent up to $\preccurlyeq_{\text{info}(c3)}$. The infimum is thus the result state [c], yielding a resultative VP denotation in Context 3 as in (105).

(105) $[\![\text{gəq́ɛt tə məmqɛyustən}]\!]^{c3,g,w}$

$= \lambda e \big[\inf_{\text{info}(c3)}[\text{EXCESS}(\lambda e'[\text{get.opened}(f_{c3}\{x|\text{window}(x)\}, e')])](e)\big]$

$= \lambda e \Big[\big[\lambda e' \exists e''[\text{open}(f_{c3}\{x|\text{window}(x)\}, e')$

$\wedge \text{get.opened}(f_{c3}\{x|\text{window}(x)\}, e'') \wedge e'' \ll e'\big](e)\Big]$

$= \lambda e \exists e'[\text{open}(f_c\{x|\text{window}(x)\}, e) \wedge \text{get.opened}(f_c\{x|\text{window}(x)\}, e') \wedge e' \ll e]$

For those roots where a simpler predicate exists to refer to the pure state, the informativeness of the pure state in the excess is permanently penalized. Consider example (106).

(106a)　mɛč́ɛt tə ǰɛnxʷ

　　√máč̌-ít　　　　tə=√ǰánxʷ

　　get.greased-STV　　DET=fish

　　"The fish is **greased up**."

　　# "The fish is (naturally) **greasy**."

Example (149a) is not accepted in a context where a fish that is naturally greasy is described, despite that being the resulting state. Consultants offered (149b) instead, preferring the bare stative root predicate √xʷíɬ-im "greasy".

(106b) xʷɛɬɛm tə ǰɛnxʷ

√xʷɬ-im   tə=√ǰánxʷ

greasy-MD   DET=fish

"The fish is **greasy** (naturally or not)."

The structure of the VP in (106a) is the same as before; again, assuming a lexical stativizer, this is given in figure 5.

VP
<v,t>
λe[inf_info(c)[EXCESS(λe'[get.greased(f_c{x|fish(x)},e')])](e)]

V
<e,<v,t>>
λxλe[inf_info(c)[EXCESS(λe'[get.greased(x,e')])](e)]

DP
e
f_c{x|fish(x)}

√máč'
<e,<v,t>>
λxλe[get.greased(x,e)]

STV
<<e,<v,t>>,<e,<v,t>>>
λPλxλe[inf_info(c)[EXCESS(P(x))](e)]

tə
<<e,t>,e>
λP_<e,t>[f_c{x|P(x)}]
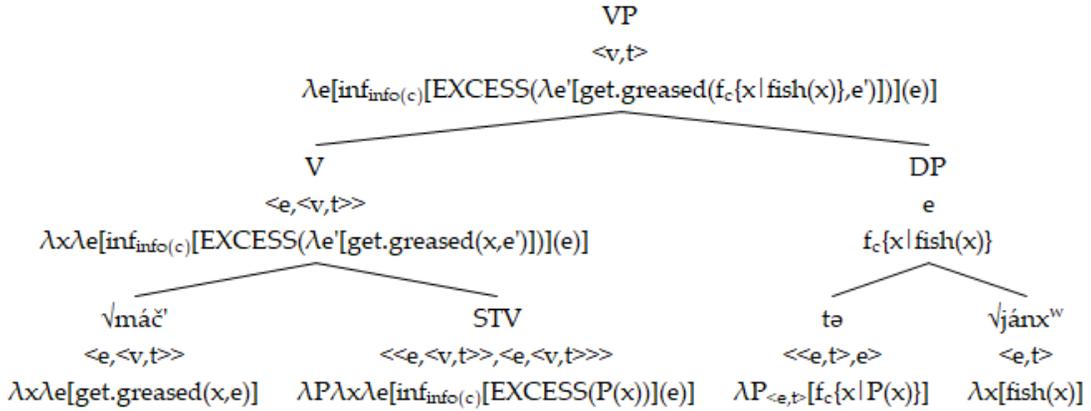
√ǰánxʷ
<e,t>
λx[fish(x)]

Figure 5: Structure and computation of example (149b)

The EXCESS of the underlying eventive predicate of (106a) is given in (107), and a less formal version is given in (108). Four analogous states to those in the previous examples are indexed similarly; the pure state [a], the post-state [b], the resultative [c], and a disjoined pure and post-state [d].

(107) $\text{EXCESS}(\lambda e[\text{get.greased}(f_c\{x|\text{fish}(x)\}, e)]) =$

$\{\lambda e[\text{greasy}(f_c\{x|\text{fish}(x)\}, e)],$ [a]

$\lambda e \exists e'[\text{get.greased}(f_c\{x|\text{fish}(x)\}, e') \wedge e' \ll e],$ [b]

$\lambda e \exists e'[\text{greasy}(f_c\{x|\text{fish}(x)\}, e) \wedge \text{get.greased}(f_c\{x|\text{fish}(x)\}, e') \wedge e' \ll e],$ [c]

$\lambda e \exists e'[\text{greasy}(f_c\{x|\text{fish}(x)\}, e) \vee \text{get.greased}(f_c\{x|\text{fish}(x)\}, e') \wedge e' \ll e]\}$ [d]

(108) $\text{EXCESS}(\llbracket\text{the fish got greased}\rrbracket^{c,g,w}) =$

$\{\llbracket\text{the fish is greasy}\rrbracket^{c,g,w},$ (pure stative reading) [a]

$\llbracket\text{the fish is greased}\rrbracket^{c,g,w},$ (post-stative reading) [b]

$\llbracket\text{the fish is greasy } and \text{ the fish is greased}\rrbracket^{c,g,w},$ (resultative reading) [c]

$\llbracket\text{the fish is greasy } or \text{ the fish is greased}\rrbracket^{c,g,w}\}$ (disjunctive reading) [d]

The contextual mechanism that operates on the excess of a blocked predicate is not different from when there is no blocking. However, the lexical blocking penalizes the pure state [a]. The extent to which the pure state is penalized is not clear, but it is tentatively formalized here as a "point" of superfluity, forcing it one place back in the order. In a context c that would have otherwise yielded a pure state as the infimum of the informativeness ordering, the blocking causes the pure state to instead share a minimal position in the order with the result state, yielding the ordering [a] $=_{info(c)}$ [c] $\prec_{info(c)}$ [d] $\prec_{info(c)}$ [b]. As this order lacks an infimum, the computation crashes and the sentence cannot be interpreted in context c.

5.5 Empirical Predictions

This approach makes at least two clear cross-linguistic empirical predictions. Assuming that a language has a stativizer operating along the same lines as that of ʔayʔaǰuθəm, pure stative readings of eventive predicates derived by this morpheme will obtain iff:

1) The pure stative reading is conceptually available and pragmatically selected;

2) No root (or simpler stem) expressing the same pure state exists to block it.

5.6 Strengths of the Analysis

This approach shows several strengths considered against the existing analyses presented in **§3.4**:

1) No additional null morphology is required, such as the omnipresent stativizers and inchoativizers required by Jackson's (2005) analysis. The analysis presented here treats eventive verb roots as underlyingly eventive, and stative verb roots as underlyingly stative. This is particularly important given the transparent derivational morphology of Salish languages.

2) It is not necessary to posit two syntactically distinct positions (or denotations) for a morpheme with a single phonological realization, such as Kratzer's (2001) distinction between a VP stativizer and a viewpoint stativizer.

3) It allows for an intuitive understanding of the difference between stativized predicates which can have pure stative readings and those that cannot, without assuming any lexical listing or specific structure for a root extension.

4) Consider an English sentence such as *the rock is buried* containing a stativized predicate which would be rejected in a pure stative context, such as describing a rock which has been deep underground for its entire existence. At least in the judgement of the author, the sentence is not rejected because it is *false* in that context, but rather because the predicate is *uninterpretable*. Existing analyses predict that the sentence is simply false, but the analysis presented here predicts that it is uninterpretable as the computation is crashing due to lexical blocking rather than evaluating to 0.

5.7   Shortcomings of the Analysis

One of the biggest problems for this proposal is that it does not answer what it means for a stative predicate to be "simpler" than a derived stativized predicate. It cannot simply be morpheme count; in English, the pure stative reading of *be buried* is lexically blocked by the bimorphemic *be underground*, and √xʷíɬ-im "greasy" (with a middle-voice marker) blocks a pure stative reading of √máč̓-ít "be greased up" (with a stativizer), though in both cases the blocking root has the same number of morphemes as the stativized forms. It could be because "underground" and √xʷíɬ-im are not built by productive morphological operations, being thus lexicalized into sufficiently root-like idiomatic constructions. More examples of these cases would be required to show this.

This analysis also does not explain why a stativized predicate would ever be used to refer to a post-state instead of a simple past (or a perfect, in English). Supposedly the reason relates to recency (possibly even immediacy), probably also brevity of speech, but a much more elaborate pragmatic framework would be required to investigate and account for this.

Additionally, a methodological problem arises out of the lexical blocking account since it relies on the (non-)existence of lexical items, which is impossible to definitively falsify in a fieldwork setting (Rullmann, p.c.).

Chapter 6   Conclusion

In this thesis, data was presented which illustrates stativized predicates in ʔayʔaǰuθəm with pure stative, resultative, or post-stative readings. Pure stative readings refer to "a state without any implication of its origin", resultative readings refer to "both a state and the preceding action it has resulted from" (Nedjalkov & Jaxontov, 1988, p. 6), and post-stative readings refer to the state of some event having culminated.

An analysis was presented to derive the correct reading of a stativized predicate through pragmatics, once given an appropriate context. This analysis states that a stativized predicate denotes the contextually most informative of the states conceptually related to its underlying eventive predicate by causality, subject to lexical blocking relations in the lexicon: if a simpler predicate exists to denote a pure state which may otherwise have been denoted by a stativized predicate, the stativized predicate will be blocked by the simpler form and the stativized predicate will be unable to receive pure stative readings (e.g. *be buried* vs. *be underground*; √máč̓-ít "be greased" vs. √xʷíɬ-im "be greasy").

Some problems left for future work:

a. This investigation focused on stativized predicates built directly on verb roots. It is not clear if this analysis of the stativizer can account for the readings of stativized predicates built on more complex stems, such as those explored in Appendix 1.

b. The syntax of stativized predicates, and their relationship to stative roots, was not explored during this investigation. If stative roots are adjectives, do stativized predicates behave in the same way? Is the stativizer itself an adjectivizer?

c. The phonology of the stativizer needs to be explored in much greater detail, especially with larger stems containing lexical suffixes.

d. The history of the ʔayʔaǰuθəm stativizer, and its cognates in other Salish languages, is not well understood; it is not a reflex of the Proto-Salish *ʔac- stativizer (Kinkade, 1996), which is much more widespread in other Salish languages.

e. A more advanced exploration of the lexical semantics of ʔayʔaǰuθəm verb roots and derived predicates is needed to more accurately evaluate some of the assumptions made in this thesis, such as that conducted by Bar-el (2005) for Squamish.

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Appendix 1   Combinatorial Properties of the Stativizer

The investigation so far has focused on stativized stems built on underived verb roots. However, Watanabe (2003, pp. 410-49) reports that the stativizer productively co-occurs with almost every available piece of derivational morphology. In this section, some observations about these stems are offered and discussed, though an extensive and proper formal analysis is beyond the scope of this thesis.

Stativized Unergative Verbs

Unergative verbs form a closed subset of verbal roots which interpret their intransitive argument as an agent when unmarked. While they appear to be exceptions to the general unaccusativity of Salish verb roots, H. Davis (1997) argues based on data from Lillooet Salish that unergatives are derived from unaccusative roots by a null allomorph of the middle voice marker, which can be ambiguous between active-intransitive and medio-reflexive readings.

At least one unergative root/stem can be stativized, given in (109) and (110).

(109) ʔaχɛθ tə mɛmow tə t́oɬəɬ

√ʔáχiθ   tə=√mímǝw   tə=√t́úɬǝɬ

lie.down   DET=cat   DET=bed

"The cat lay down on the bed."

(110) ʔaχéθ tə mɛmow tə t́oɬəɬ

√ʔáχ\íθ   tə=√mímǝw   tə=√t́úɬǝɬ

lie.down\STV   DET=cat   DET=bed

"The cat is lying on the bed."

Most unergative roots are rejected with stative morphology of the expected shape. Some examples of this are given in (111-113).

(111a) ǰuλ́

√ǰə́λ́

run

"to run"

(111b) **#** ǰuλ́ɛt

√ǰə́λ́-**it**

run-**STV**

(112a) ʔoɬtxʷ

√ʔúɬtxʷ

enter

"to enter"

(112b) **#** ʔoɬtɛxʷ

√ʔúɬt**<i>**xʷ

enter**<STV>**

(113a) ʔɛɬtən   (113b) **#** ʔɛɬtɛn

√ʔíɬtən   √ʔíɬt\<i\>n

eat   eat\<STV\>

"to eat"

However, many unergative roots have unusual stative forms. Some examples are given in (114-116), with tentative glossing.

(114a) ʔoɬtxʷ   (114b) ʔaɬtxʷ

√ʔúɬtxʷ   √ʔ\<**á**\>ɬtxʷ

enter   enter\<STV?\>

"enter"   "be inside"

(115a) ƛ̓ɪč̓t   (115b) ƛ̓iyč̓t

√ƛ̓ə́č̓t   √ƛ̓íyč̓t

fall.sleep   fall.sleep[STV?]

"fall asleep"   "to be asleep"

(116a) ʔowuɬ   (116b) ʔiyʔawuɬ

√ʔúwuɬ   **ʔíy**-√ʔ\<**á**\>wuɬ

embark   STV?-embark\<STV?\>

"embark"   'to be embarked (e.g. on a boat)'

Stativized Active-intransitive Stems

The active-intransitive morpheme *-ʔəm* derives an unergative stem from a (lexically unaccusative) verb root. The derived active-intransitive stem interprets its sole argument as an agent, but an oblique object can be given. Verb roots with active-intransitive derivation are often translated as "to do Xing", or having an implicit object "to X something / things".

(117a) yɪp̓   (117b) yɪp̓ʔəm

√yə́p̓   √yə́p̓-**ʔəm**

break   break-**AI**

"to break" (unacc.)   "to break something / things"

Stative morphology combines with the active-intransitive marker, with limited productivity. These stems are usually translated into the English progressive 'to be Xing', though English

progressives are otherwise always translated into the CV- progressive. However, sometimes the stative reading can be understood from context, such as in example (118) below.

(118a) ǰuǰuθʔəmč

      ǰú~√ǰuθ-**ʔəm**=č

      PROG~get.pushed-**AI**=1S.IND

      "I am pushing something."

      Speaker comment: "You are pushing it to move it."

(118b) ǰuθʔɛmč

      √ǰúθ-**ʔ\<i\>m**=č

      get.pushed-**AI\<STV\>**=1S.IND

      "I am pushing something."

      Speaker comment: "You are pushing it to keep it in place."

Additional examples of accepted stative and active-intransitive marked stems are given in (119-121) (Watanabe, 2003, p. 418).

(119a) ƛayʔəm

      √**ƛáy-ʔəm**

      get.grabbed-**AI**

      "hold sth."

(119b) ƛayʔɛ́m

      √**ƛáy-\<i\>m**

      get.grabbed-**AI\<STV\>**

      "be holding sth."

(120a) kʷɛyʔəm

      √kʷáy-**ʔəm**

      get.hidden-**AI**

      "hide sth."

(120b) kʷɛyʔɛ́m

      √kʷáy-**ʔ\<i\>m**

      get.hidden-**AI\<STV\>**

      "have sth. hiding"

(121a) χɛpʔəm

      √χíp-**ʔəm**

      get.scratched-**AI**

      "scratch sth."

(121b) χɛpʔɛ́m

      √χíp-**ʔ\<i\>m**

      get.scratched-**AI\<STV\>**

      "be scratching sth."

Some examples of rejected stative and active-intransitive marked stems are given in (122-124).

(122a) ǰaq́ʔəm

√ǰáq́-ʔ**əm**

fall-**AI**

"fell sth. (tree)"

(122b) **#** ǰaq́ʔɛm

√ǰáq́-ʔ**<i>m**

fall-**AI**<**STV**>

(123a) ǰʊḱʷʔəm

√ǰə́ḱʷ-ʔ**əm**

get.painted-**AI**

"paint sth."

(123b) **#** ǰʊḱʷʔɛm

√ǰə́ḱʷ-ʔ**<i>m**

get.painted-**AI**<**STV**>

(124a) təqʔəm

√tə́q-ʔ**əm**

get.closed-**AI**

"close sth."

(124b) **#** təqʔɛm

√tə́q-ʔ**<i>m**

get.closed-**AI**<**STV**>

It was not possible during the investigation of these stems to generate a concrete generalization regarding how a root will be interpreted with the stativizer and active intransitive (STV+AI), or even to predict which roots are acceptable with STV+AI. The only hypothesis that seems likely given the data obtained here and that in Watanabe (pp. 417-25) is that the combination refers to a state of an indeterminate patient which requires constant effort or attention on the part of the agent to maintain (indicating then an unchanging *effort* rather than an unchanging *situation*). This would suggest that the stativizer merges *above* (in)transitivizers in the stem, being then pushed behind them by its phonology. Testing this hypothesis has proved difficult, as consultants usually offer stativized causative stems as translations for such examples.

Furthermore, it is possible that some of these examples are not stative at all, but rather some sort of ablaut pluractional marker, related to the one reported by Watanabe (pp. 459-70). Because of the overlap between the realizations of the vowels /a/ and /i/ in this environment, it is impossible to tell apart stative ∥-ʔ<i>m∥ and a hypothetical plural ∥-ʔ<a>m∥ from segmental phonology alone (it may be possible to do so in at least some cases based on suprasegmental phonology, but this was not specifically investigated).

This ambiguity is exacerbated by the fact that it appears to not be possible to stativize active-intransitive stems built on CVCC roots without triggering the usual ablaut plural, as reported by Watanabe (p. 419).

(125a) č̓ɪуḱɛʔɛm   (125b) **#** č̓ɪуḱʔəm   (125c) č̓ɛǰɛḱʔɛm

√č̓ə́yḱ-**aʔam**   √č̓ə́yḱ-**ʔ<i>m**   √č̓áǰ**<i>**ḱ-**ʔ<i>m**

get.fried-**AI**   put.in.mouth-**AI<STV>**   get.fried**<PL>**-**AI<STV?>**

"to fry something"   "be frying something"

This potential pluractional or marker is discussed further below, regarding the combination of the stativizer with control transitive stems.

Stativized Middle Voice Stems

The middle voice marker -*Vm* derives a medio-reflexive stem from an unaccusative root. This morpheme is largely unproductive, except in those roots that carry a lexical suffix.

(126a) mɛɑ́šɪč̓   (127b) mɛɑ́šɪnəmč̓

√míɑ́-šən=č̓   √míɑ́-šən-**əm**=č̓

get.submerged-foot=1S.IND   get.submerged-foot-**MD**=1S.IND

"My feet got submerged."   "I submerged my feet."

Many cases of lexicalized middle voice markers exist, which makes analysing the co-occurrence of the stativizer with the middle voice marker difficult. Even more problematically, the vowel in the middle voice suffix is not predictable, making it difficult to tell apart a stativized form from one where the middle voice marker simply happens to have an /i/ in it.

Watanabe (2003) reports the stativizer co-occurring with the middle voice marker in several cases, leading to an interpretation that is similarly difficult to discern from the progressive, but that occasionally comes across in the translation.

(128a) qəkʷʊmč̓   (128a) qəkʷɛmč̓

√qə́kʷ-**əm**=č̓   √qə́kʷ-**<i>m**=č̓

get.stopped-**MD**=1S.IND   get.stopped-**MD<STV>**=1S.IND

"I stopped."   "I am still."

Some additional examples, adapted from Watanabe (2003, p. 425) are given in (129-131).

(129a) ƛ̓ɛɫəm

    √ƛ̓áɫ-**əm**

    get.salted-**MD**

    "add salt"

(129b) ƛ̓ɛɫem

    √ƛ̓áɫ-**<i>m**

    get.salted-**MD<STV>**

    "be salted"

(130a) nɛt̓θosəm

    √nát̓θ-us-**əm**

    nod-face-**MD**

    "nod"

(130b) nɛt̓θosɛm

    √nát̓θ-us-**<i>m**

    nod-face-**MD<STV>**

    "be nodding"

(131a) kʷʊtəm

    √kʷə́t-**əm**

    get.sick-**MD**

    "get sick"

(131b) kʷətɛm

    √kʷə́t-**<i>m**

    get.sick-**MD<STV>**

    "be sick"

Stativized Control Transitive Stems

Stems marked with the control transitivizer -*Vt* have traditionally been analyzed as indicating that the agent is in full control of the event denoted by the stem – that the action is carried out in full volition and ability (Thompson, 1985). More recent analyses by Watanabe (2003) and Jacobs (2011), building on observations by J. Davis (1978) and Kroeber (1985) about control predicates in ʔayʔaǰuθəm, instead highlight the aspectual property of control predicates: they have a culmination *implicature* but no *entailment* (see also Bar-el, 2005; Bar-el, H. Davis, & Matthewson, 2004a for analyses of non-culminating accomplishments, though these works do not explore their connection to agent control explicitly).

(132) *Traditional control and limited control contrast*

    (Watanabe, 2003, pp. 202-3)

Control	**Limited control**
t̓ot̓θotas	t̓ot̓θʊxʷas
√t̓út̓θ-**ut**-as	√t̓út̓θ-**əxʷ**-as
get.shot-**CTR[3OBJ]**-3ERG	get.shot-**LCTR[3OBJ]**-3ERG
"She shot it."	"She accidentally shot it."
	"She managed to shoot it."

(133) *Aspectual contrast between control and limited control stems*

	Control			Limited control	
	ṫotᶿotas ʔiy tɛyčʊxʷas			ṫotᶿʊxʷas **#** ʔiy tɛyčʊxʷas	
	√ṫúṫᶿ-**ut**-as	ʔiy		√ṫúṫᶿ-**əxʷ**-as	ʔiy
	get.shot-**CTR[3OBJ]**-3ERG	and		get.shot-**LCTR[3OBJ]**-3ERG	and
	√táyč-əxʷ-as			√táyč-əxʷ-as	
	get.missed-LCTR[3OBJ]-3ERG			get.missed-LCTR[3OBJ]-3ERG	
	"She shot [at] it but she missed."			"She managed to shoot it **#** but she missed."	

The stativizer combines with the control transitivizer with productivity limited by either lexical or currently unidentified constraints. Like stativized active-intransitive stems, stativized control stems are often translated into the English progressive.

(134a) hʊq́ʷtəm čɛńo tə χaǰiys

   √hə́q́ʷ-**t**-əm   √čáńu   tə=√χáǰəys

   get.smelled-**CTR[3OBJ]**-PASS   dog   DET=rock

   "The dog sniffed at the rock."

(134b) χʷoχʷmot hʊq́ʷɛtəmuɬ čɛńo tə χaǰiys

   √χúχ-mut   √hə́q́ʷ-<**í**>**t**-əm-uɬ   √čáńu   tə=√χáǰəys

   long.time-very   get.smelled-**CTR[3OBJ]**<**STV**>-PASS-PST   dog   DET=rock

   "The dog was sniffing at the rock for a long time."

As is the case with stativized active-intransitive stems, there is a difficulty finding stativized control transitive stems built on CVCC roots; it is unclear if the form in (135b) is a control stative or an instantiation of a pluractional marker which occurs with CVCC roots, as reported by Watanabe (2003, pp. 464-5).

(135a) ƛəpxʷatuɬč saplin

   √ƛə́pxʷ-**at**-uɬ=č   √sáplin

   get.broken-**CTR[3OBJ]**-PST=1S.IND   bread

   "I broke the bread (in two)."

(135b) hotᶿəm ƛapɛxʷat šə χəpɛý

      √hú=tᶿəm   √ƛə́p<i>xʷ-at   šə=√χə́paý

      go.AUX=1S.IND+FUT   get.broken<STV/PL?>-CTR[3OBJ]   DET=stick

      "I will go break down that wood."

Sometimes the stative reading of the stativized control transitive stems comes across in the translation in a similar manner to stativized active-intransitive stems. This is shown in (136), where the stativizer occurs as secondary stress on the vowel of the transitivizer.

(136a) hagɛtułč tə lasup

      √hág-at-uł=č   tə=√lásup

      warm.up-CTR[3OBJ]-PST=1S.IND   DET=soup

      "I warmed up the soup."

(136b) χoχmotč hagɛt tə lasup

      √χúχ-mut=č   √hág-\át   tə=√lásup

      long.time-very=1S.IND   warm.up-CTR[3OBJ]\STV   DET=soup

      "I have been keeping the soup warm for a long time."

      Context: Waiting for someone.

Interestingly, some stativized control transitive stems (or rather, control transitive stems that appear to be stativized) receive straightforward pluractional readings, such as in (137) taken from Watanabe (2003, p. 431).

(137a) ʔəχt   (137b) ʔəχét

      √ʔə́χ-t   √ʔəχ-<i>t

      get.coughed-CTR[3OBJ]   break-CTR[3OBJ]<STV>

      "cough it out"   "keep coughing it out"

Unlike the pluractional cases of the stativizer combining with the active-intransitive, different phonological predictions are generated by the hypothesis that there is a separate ablaut pluractional marker. On strong roots (roots containing a vowel that is not a schwa), the control transitivizer carries a link vowel, which means that the stem has a CVCVC shape and thus the stative surfaces as a secondary stress. The stative analysis then predicts that in roots containing a /u/, the stativized control stem should surface as /CúCúC/, while the pluractional ablaut analysis predicts /CúCaC/.

Interestingly, both forms were found, but not as would be expected by a differing semantic account. Some speakers simply prefer /CúCúC/, and others /CúCaC/, for *all* cases of stativized/pluractionalized control transitive stems based on /u/ roots. Eliciting example (138) found in Watanabe (2003, p. 433), two forms were found, as shown in (139) and (140).

(138) qʷomot   (139) **%** qʷomót   (140) **%** qʷomɛt

     √qʷúm-**ut**   √qʷúm-**\út**   √qʷúm-**<a>t**

     put.in.mouth-**CTR[3OBJ]**   put.in.mouth-**CTR[3OBJ]\STV**   put.in.mouth-**CTR<?>**[3OBJ]

     "put it in mouth"   "keep it in mouth"   "keep it in mouth"

This variation was particularly clear during a shared elicitation with two consultants. The prompt consisted of a cartoon picture of a standoff between two cowboys, and one continuation where they suddenly shoot each other once, and another where they shoot each other multiple times, as in figure 6. The consultants agreed about how to describe former situation, given in (141).

(141) χoχmot papkʷostawɬ, hoy ʔiy tótʼᶿotawɬ

     √χúχ-mut   √pápkʷ-us-t-awɬ   huy   ʔiy   √tútʼᶿ-**at**-awɬ

     long.time-very   stare-face-CTR-RCP   end   and   get.shot-**CTR**-RCP

     "They stared at each other for a long time, then suddenly shot each other."

       (MW; KG)

However, describing the latter situation, the speakers explicitly disagreed about what form the final verb should take. The first consultant suggested tótʼᶿɛtawɬ in (142), even calling it a "plural form", while the second consultant wanted tótʼᶿótawɬ, as in (143).

(142) χoχmot papkʷostawɬ, hoy ʔiy **tótʼᶿɛtawɬ**

     √χúχ-mut   √pápkʷ-us-t-awɬ   huy   ʔiy   √tútʼᶿ-**<a>t**-awɬ

     long.time-very   stare-face-CTR-RCP   end   and   get.shot-**CTR<PL?>**-RCP

     "They stared at each other for a long time, then suddenly shot each other over and over."

       (**#** MW; KG)

(143) χοχmot papkʷostawɬ, hoy ʔiy t̓ot̓ᶿótawɬ

√χúχ-mut √pápkʷ-us-Vt-awɬ huy ʔiy √t̓út̓ᶿ^-\út-awɬ

long.time-very stare-face-CTR-RCP end and get.shot-**CTR\STV?**-RCP

"They stared at each other for a long time, then suddenly shot each other over and over."

(MW; **#** KG)

Figure 6: Two prompts to test stativized/pluractionalized control transitive stem

It is also possible that these constitute a different aspectual construction from the usual stativizer, or one which forms part of a composite stativization in ʔayʔaǰuθəm. In most Central Salish languages, predicates analogous to ʔayʔaǰuθəm derived statives are built by prefixing the Proto-Salish *ʔac-* stativizer, usually onto stems that have been marked by a cognate of the ʔayʔaǰuθəm progressive marker. These analogous stems are often called "resultatives", though it is not clear if these are resultative in the formal sense of Nedjalkov and Jaxontov (1988). Some examples of this process in the Musqueam dialect of Halkomelem are given in (144), obtained from Suttles (2004).

(144) *"Resultative" forms in Halkomelem*

(Suttles, 2004, pp. 182-3)

Plain	Progressive	Resultative
q̓ʷím	q̓ʷíq̓ʷəm	sq̓ʷíq̓ʷəm
"disembark"	"be disembarking"	"ashore"
mə́tqʷt	mátqʷt	smátqʷ
"immerse it"	"be immersing it"	"immersed"
qʷə́s	qʷəqʷə́s	sqʷəqʷís
"sink"	"be sinking"	"sunk"

Suttles also reports stems which appear very similar to stativized control transitive stems in ʔayʔaǰuθəm. However, he calls them "durative" stems, because their morphological composition is different from that of the resultative; these have no stative prefix, a different form of reduplication (which is apparently not mutually exclusive with the progressive) and exhibit the same vowel quality change and stress shift to the right edge of the stem that is associated with resultatives built on CəC roots (this is likely a cognate process to the formation of the ʔayʔaǰuθəm stative with larger stems). Some examples are given in (145).

(145) *"Durative" control transitive forms in Halkomelem*

(Suttles, 2004, pp. 174-5)

Plain	Plain prog.	Durative	Durative prog.
k̓ʷéčət	k̓ʷék̓ʷəcət	k̓ʷək̓ʷcét	k̓ʷik̓ʷcét
"look at it"	"be looking at it"	"watch it"	"be watching it"
θχə́t	θéχt	θəθχét	θiθχét
"push it away"	"be pushing it away"	"hold it away"	"be holding it away"
kʷéʔt	kʷəkʷéʔt	kʷəʔét	kʷəkʷəʔét
"drop it"	"be dropping it"	"leave it alone"	"be leaving it alone"

It is unclear if the existence of an analogous "durative" aspect in ʔayʔaǰuθəm would account for the anomalies encountered in the data on control transitives, but it is a possible avenue of investigation.

Stativized Limited Control Transitive Stems

Under the Agent Control analysis, stems transitivized by the limited control transitivizer -*ng* indicate that the agent carries out the action unintentionally or only after some difficulty (Thompson, 1985). This analysis has similarly come under fire, as Watanabe (2003) and Jacobs (2011) show that its semantics assert culmination, and that the frequent translations relating to the agent's lack of control is an artifact of the pragmatics of its use.

Watanabe (2003) reports only one clear case of the limited control transitivizer co-occurring with the stativizer.

(146a) tʊχʷʊxʷ
        √tə́χʷ-**əxʷ**
        get.learned-**LCTR[3OBJ]**
        "learn it"

(146b) tʊχʷnɛxʷ
        √tə́χʷ-**n<í>xʷ**
        get.learned-**LCTR[3OBJ]<STV>**
        "know it"

However, Mellesmoen and Andreotti (2017) report a much more productive form of the co-occurrence, as a suprasegmental feature on the transitivizer typical of larger stativized stems. This is unexpected, however, as the vowel of the limited control transitivizer is generally assumed to be a schwa; the realization of the suprasegmental allomorph of the stativizer suggests that this vowel is actually strong.

Stativized limited control stems indicate a recent action, similar to an English perfect aspect. Some examples are given in (147-149).

(147a) yɪṕʊxʷas
        √yə́ṕ-**əxʷ**-as
        get.broken-**LCTR[3OBJ]**-3ERG
        "He broke it."

(147b) yɪṕʊ́xʷas
        √yə́ṕ-**\ə́xʷ**-as
        get.broken-**LCTR[3OBJ]\STV**-3ERG
        "He (just) broke it."

(148a) xʷʊtmʊxʷan
        √xʷə́tm-**əxʷ**-an
        get.dropped-**LCTR[3OBJ]**-1S.ERG
        "I dropped it."

(148b) xʷʊtmʊ́xʷan
        √xʷə́tm-**\ə́xʷ**-an
        get.dropped-**LCTR[3OBJ]\STV**-1S.ERG
        "I (just) dropped it"

(149a) pəχʊxʷas

√pə́χ-**əxʷ**-as

get.torn-**LCTR[3OBJ]**-3ERG

"He tore it."

(149b) pəχʊ́xʷas

√pə́χ-**\ə́xʷ**-as

get.torn-**LCTR[3OBJ]\STV**-3ERG

"He (just) tore it."

Stativized Causative Stems

The function of the causative transitivizer *-stg* is somewhat underspecified; it occurs in a range of environments yielding a range of readings which are likely determined by context. H. Davis (p.c.) calls it the "default" transitivizer, merging where other transitivizers cannot. It is also the only transitivizer which is spelt out outside the stativized stem (not triggering a change in the shape of the stativizer).

Stativized stems can be productively transitivized by the causative transitivizer. These stems often receive state maintenance readings, translated as "have it Xed" or "keep it Xed".

(150a) təqɛt ʔɛmɛn

√tə́q-**it**   √ʔímin

get.closed-**STV** door

'The door is closed.'

(150b) təqɛtstəm tə θukʷnɛčtən tə ʔɛmɛn

√təq-**it-st**-əm   tə=√θúkʷnačtən tə=√ʔímin

get.closed-**STV-CAU[3OBJ]**-PASS DET=chair   DET=door

'The chair is keeping the door closed.'

With overt DP or 3ʳᵈ person pronominal objects, the surface form of the causative suffix alternates between *-sxʷ* and *-stɛxʷ* with no apparent difference in meaning; the difference in agent control reported by Watanabe (2003) could not be reproduced, though this may be due to interspeaker variation. Additional examples of stative predicates transitivized by the causative transitivizer are given below.

(151a) gəq̓ɛt

√gə́q̓-**it**

get.opened-**STV**

'to be open'

(151b) gəq̓ɛtsxʷ / gəq̓ɛtstɛxʷ

√gə́q̓-**it-stəxʷ**

open-**STV-CAU**[3**OBJ**]

'to keep it open'

(152a) pənɛt

√pə́n-**it**

get.buried-**STV**

'to be buried'

(152b) pənétsxʷ / pənétstɛxʷ

√pə́n-**it-stəxʷ**

get.buried-**STV-CAU**[3**OBJ**]

'to have it buried'

(153a) kʷayét

√kʷáy-**ít**

get.hidden-**STV**

'to be hidden'

(153b) kʷayétsxʷ / kʷayétstɛxʷ

√ kʷáy-**ít-stəxʷ**

get.hidden-**STV-CAU**[3**OBJ**]

'to have it hidden'

Appendix 2   Manner/Result Complimentarity

A way that English verbs can be partitioned based on their lexical semantics that does not relate to lexical aspect is based on whether they encode *manner* or *result*. Verbs of manner encode information about how an event progresses, and verbs of result encode information about what state results from the event (Levin & Rappaport Hovav, 1991). Example (154) lists some examples of each of these classes.

(154) *Verbs of manner*

    blink, jog, run, scrub, sweep, swim, wipe, yell, etc.

    Verbs of result

    break, clean, crush, destroy, dim, shatter, etc.

      (Beavers & Koontz-Garboden, 2012, p. 332)

The primary diagnostic to distinguish these two classes is to assert the culmination of a predicate, but to deny any resulting state. While some verbs of manner may heavily imply certain resulting states, these are still cancellable pragmatic implicatures arising from context, as shown in example (155). Note that this test is not an attempt at cancelling *culmination*; in fact, culmination is pointedly being asserted. What this test attempts to cancel is a transition into some result state (other than the post-state).

(155) *Denial of result and verbs of result*

    a. Shane just broke the vase, **#** but nothing is different about it.

    b. Shane just shattered the bottle, **#** but nothing is different about it.

    c. Shane just destroyed his house, **#** but nothing is different about it.

    Denial of result and verbs of manner

    a. Adam just swept the floor, but nothing is different about it.

    b. Adam just wiped the table, but nothing is different about it.

    c. Adam just punched Joe, but nothing is different about him.

      (adapted from Beavers & Koontz-Garboden, 2012, p. 337)

It is generally difficult to find stativized predicates built on verbs of manner, and without context they are often rejected, as shown in example (156). However, some counterexamples to this exist, which seem to have a result implicature which is stronger somehow.

(156) *Stativized predicates built on verbs of manner usually infelicitous without context*

>?? My eyes are blinked.

>?? The mile is jogged.

>?? My name is yelled.

>?? Joe is punched.

>The floor is swept.　　(Implicature: the floor is clear)

>The table is wiped.　　(Implicature: the table is clean)

Levin and Rappaport Hovav (1991) describe the classes of verbs of manner and verbs of result as complementary, positing that it is not possible for a natural language verb to encode information about both how an event progresses and what state results from it. This hypothesis is often called the Manner/Result Complementarity, and the restriction it places on possible verb meanings is formalized in (157) in terms of lexical decomposition.

(157) a.　$[x \text{ ACT}_{root}]$　　　　　　　　　　　　　　　　(Verb of manner)[24]

　　 b.　$[x \text{ (BECOME STATE)}_{root}]$　　　　　　　　(Verb of result, unaccusative)

　　 c.　$[[x \text{ ACT}] \text{ CAUSE } [y \text{ (BECOME STATE)}_{root}]]$　　(Verb of result, transitive)

　　 d.　**#** $[[x \text{ ACT}_{root}] \text{ CAUSE } [y \text{ (BECOME STATE)}_{root}]]$

　　　　(adapted from Beavers & Koontz-Garboden, 2012, p. 333)

Note that this partition relates does not commute with lexical aspect: the distinction between verbs of manner and verbs of result traverses the eventive lexical aspect classes, as shown in (158).

(158) *Manner/Result Complementarity across lexical aspect classes*

	Activities	Accomplishments	Achievements
Verbs of Manner	sweep the floor	carve a sculpture	punch a man
	wipe the table	run a mile	shoot a bottle
Verbs of Result	draw circles	draw a circle	die
	build houses	build a house	tear the cloth

---

[24] This schema is given from all verbs of manner, whether transitive, unergative, or even unaccusative. While the question of the relation argument structure with these two classes is not trivial, it is not explored here.

In the adapted schema of Pustejovsky (1991), this restriction can be represented as in (68), where verbs of manner are characterized as having a logical fulcrum on their process, while verbs of result have a logical fulcrum on the transition to a result state.

(159) *Manner/Result Complementarity in adapted Pustejovsky event schemata*

Verb of manner:	Verb of result:

Transition
Pre-phase   Post-phase
State   **Process**   State
$P_1, P_2, ... P_n$
¬Q   Q

Verbs of manner entail a process,
may implicate a transition

Transition
Pre-phase   **Post-phase**
State   Process   **State**
$P_1, P_2, ... P_n$
¬Q   Q

Verbs of result entail a transition,
may implicate a process
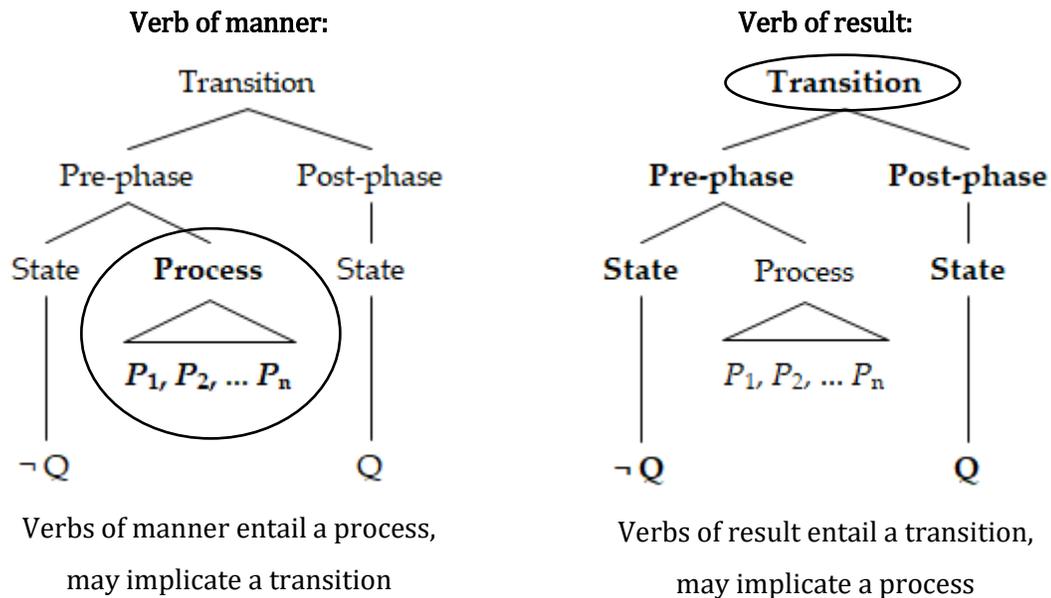
The validity of the Manner/Result Complementarity (or at least this version of it) has come into question due to apparent counterexamples such as manner-of-killing verbs given in (160), but the distinction between verbs of manner and verbs of result is useful in the present investigation because verbs of manner and verbs of result pattern differently when stativized.

(160) *Manner-of-killing verbs*

crucify, drown, electrocute, guillotine, hang
(Beavers & Koontz-Garboden, 2012, p. 335)

Furthermore, verbs of manner show that a transition does not need to occur for a predicate to be telic; some predicates which encode processes but no transition, such as *punch a man* or *run a mile*, are telic. It is possible for a process to encode a natural endpoint – an encoded final phase to delineate it – but no transition into some result state. This could be indicated in the event schemata as in (161), using rounded or square brackets around the process, akin to interval notation, indicating whether the process contains its boundaries.

(161) *Telic and atelic verbs of manner in adapted Pustejovsky event schemata*
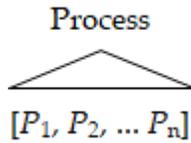
Telic verb of manner:	Atelic verb of manner:
Process	Process
$[P_1, P_2, ... P_n]$	$(P_1, P_2, ... P_n)$
Process contains its boundaries	Process does not contain its boundaries
E.g. punch a man, run a mile	E.g. sweep the floor, wipe the table

To test ʔayʔaǰuθəm for a manner/result distinction among its verb roots, the result of either the bare predicate or the limited control transitive derived from an eventive root were broadly denied.[25] This was done by juxtaposition with the sentence example (162)..
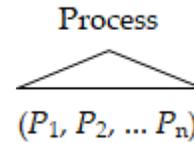
(162) xʷukʷt taḿ ʔaǰɛms

xʷúkʷt   táḿ   √ʔáǰ-im=s

none   what   get.changed-MD=3POS

"nothing changed about it."

A great difficulty that was faced with this diagnostic is that the consultant would constrain the domain of xʷúkʷt "none" to exclude the result state of the predicate being tested, as shown in (163) and (164). Because of this, roots corresponding to English verbs of result and those corresponding to verbs of manner patterned identically in terms of the acceptability of the prompts. However, the subsequent discussion with the consultant about the possible situation these sentences could describe may reveal that there is a difference.

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[25] The limited control transitive is used because the result state of a control transitive predicate can always be denied felicitously. Under the agent control analysis, the limited control transitivizer marks an action as completed unintentionally or only after some difficulty (Thompson, 1985); however, this goes against more recent observations that this transitivizer is predominantly aspectual and often accepted in environments where the agent is in control (Watanabe, 2003, pp. 204-14; Jacobs, 2011; Andreotti, 2017).

(163) *Broad result denial with roots corresponding to verbs of result in English*

(a) čɛt təq ʔɛmɛn, xʷukʷt taɬ́ ʔaǰɛms

    čáʔat √tə́q　　　√ʔímin, xʷúkʷt táɬ́ √ʔáǰ-im=s

    now **get.closed** door,　none　what get.changed-MD=3POS

    "The door just **closed**, (but) nothing (else) changed about it."

    Consultant (JF) comment: The door must have closed, but nothing else changed about it. It made the same noise as before, eh?

(b) čɛč pəχʊxʷ tᶿ qasnɛy, xʷukʷt taɬ́ ʔaǰɛms

    čáʔat=č　　　√pə́χ-əxʷ　　　　　tᶿ=√qásnay, xʷúkʷt táɬ́ √ʔáǰ-im=s

    now=1S.IND **get.torn-LCTR[3OBJ]** 1S.POS=shirt, none　what get.changed-MD=3POS

    "I just **tore** my shirt, (but) nothing (else) changed about it."

    Consultant (JF) comment: It got ripped but nothing else changed about it.

(c) čɛt ǰɛχʷ tuẃ, **?** xʷukʷt taɬ́ ʔaǰɛms

    čáʔat √jáχʷ　　　√túẃ,　xʷúkʷt táɬ́ √ʔáǰ-im=s

    now **get.melted** ice,　　none　what get.changed-MD=3POS

    "The ice just **melted**, **?** (but) nothing (else) changed about it."

    Consultant (JF) comment: The ice did melt, but nothing else happened to it. This one is a bit strange.

(164) *Broad result denial with roots corresponding to verbs of manner in English*

(a) čɛč ṫotᶿʊxʷ lamayɛ, xʷukʷt taɬ́ ʔaǰɛms

    čáʔat=č　　　√tútᶿ-əxʷ　　　　　　√lámaya,　xʷúkʷt táɬ́ √ʔáǰ-im=s

    now=1S.IND **get.shot-LCTR[3OBJ]**　bottle,　　none　what get.changed-MD=3POS

    "I just **shot** the bottle, (but) nothing changed about it."

    Consultant (JF) comment: It's ok even if nothing at all changed about the bottle.

(b) čɛč ṗɛtᶿʊxʷ tᶿ qasnɛy, xʷukʷt taɬ́ ʔaǰɛms

    čáʔat √ṗítᶿ-əxʷ　　　　　tᶿ=√qásnay, xʷúkʷt táɬ́ √ʔáǰ-im=s

    now **get.washed-LCTR[3OBJ]** 1S.POS=shirt, none　what get.changed-MD=3POS

    "I just **washed** my shirt, (but) nothing changed about it."

    Consultant (JF) comment: Nothing changed about the shirt, it could be exactly the same. I hate it when that happens, then I have to wash it again.

(c)   čɛč χɛqosəm, xʷukʷt tań ʔaǰɛms

      čáʔat=č   **√χíq-us-əm**,   xʷúkʷt táḿ √ʔáǰ-im=s

      now=1S.IND   **get.scratched-face-MD**,   none   what get.changed-MD=3POS

      "I just scratched my face, (but) nothing changed about it."

      Consultant (JF) comment: My face is exactly the same. This happens to me when there's

      too much cat hair around.

While it thus remains unclear if such a distinction exists among verb roots in ʔayʔaǰuθəm, the
fact that certain verbs in English entail no result state made testing them for pure stativity
impossible, as there is no way to know without an in-depth familiarity with ʔayʔaǰuθəm lexical
semantics and pragmatics what such a pure state would be. However, ten roots corresponding
to verbs of manner in English were tested for post-stativity. These are listed in (165).

(165) *Verb roots corresponding to verbs of manner in English*

√t́út́ᶿ	"get shot"	√qə́p	"get touched"
√χʷə́tqʷ	"get scrubbed"	√ƛə́s	"get punched"
√xʷíp	"get swept"	√yə́m	"get kicked"
√ṕít́ᶿ	"[clothes] get washed"	√χím	"get clawed"
√θáp	"get bathed"	√χíq	"[itch] get scratched"

Stativized predicates built on nine of the ten roots were accepted in post-stative contexts.
However, the consultant almost always preferred transitive passives in these contexts; it is not
clear why this is the case. All ten examples are given in (166-175).

(166) t́ot́ᶿɛt lamayɛ, xʷukʷt tań ʔaǰɛms, xʷaʔ yıṕas

      √t́út́ᶿ-ít   √lámaya,   xʷúkʷt táḿ √ʔáǰ-im=s   xʷaʔ

      get.shot-STV   bottle,   none   what get.changed-MD=3POS, NEG

          √yə́ṕ=as
          get.broken-STV

      "(Though) the bottle is **shot**, nothing changed about it, it did not break."

      Context: The bottle was shot, but the bullet just bounced off without even leaving a

      scratch because it is made of really strong glass.

          (JF)

(167) χʷʊtɛqʷ tə kʷałt́, xʷʊkʷt tam̋ ʔaǰɛms, qaǰɛʔot čɪpχ

    √χʷə́t\<i\>qʷ   tə=√kʷáłt́,   xʷúkʷt   tám̋ √ʔáǰ-im=s,

    get.scrubbed\<STV\> DET=plate,   none   what get.changed-MD=3POS,

       qáǰi=ʔut   √čə́pχ

       still=CLT   dirty

    "(Though) the plate is **scrubbed**, nothing changed about it, it is still dirty."

    Context: A dishwasher has scrubbed a dirty plate hard, but to no avail; it has some really stubborn dirt on it.

       (JF)

(168) xʷipɛt tə θɛyomuxʷtən, xʷukʷt tam̋ ʔaǰɛms, qaǰɛʔot kʷikʷɛt saǰ̈ɛ

    √xʷíp-ít   tə=√θáyumuxʷtən, xʷúkʷt   tám̋ √ʔáǰ-im=s,   qáǰi=ʔut

    get.swept-STV DET=floor,   none   what get.changed-MD=3POS, still=CLT

       kʷí~√kʷʔ-ít   √sáǰ̈a

       PL~on.ground-STV   leaves

    "(Though) the floor is **swept**, nothing changed about it, leaves are still scattered on it."

    Context: Some wind keeps blowing leaves back onto the floor a sweeper is trying hard to clear.

       (JF)

(169) ṗɛt̕θɛt tə qasnɛys, xʷukʷt tam̋ ʔaǰɛms, qaǰɛʔot čɪpχ

    √ṗít̕θ-ít   tə=√qásnay=s,   xʷúkʷt tám̋ √ʔáǰ-im=s,   qáǰi=ʔut

    get.washed-STVDET=shirt=3POS, none   what get.changed-MD=3POS, still=CLT

       √čə́pχ

       dirty

    "(Though) his shirt is **washed**, nothing changed about it, it is still dirty."

    Context: A shirt is pulled out of the machine with a big stain still on it.

       (JF)

(170) θapɛt t^θ ćeńo, x^wuk^wt tań ʔaǰɛms, qaǰɛʔot čɪpχ

    √**θáp-ít**   t^θ=√čáńu,   x^wúk^wt   táḿ   √ʔáǰ-im=s,   qáǰi=ʔut

    get.bathed-STV   1S.POS=dog,   none   what   get.changed-MD=3POS,   still=CLT

         √čə́pχ

         dirty

    "(Though) my dog is **bathed**, nothing changed about her, she is still dirty."

    Context: The dog is bathed after jumping into mud, but despite a decent effort she is still

    dirty after being bathed.

         (JF)

(171) ƛəsɛt tə lɛplɛš, x^wuk^wt tań ʔaǰɛms, x^waʔ ƛəpx^was

    √**ƛə́s-it**   tə=√láplaš,   x^wúk^wt   táḿ   √ʔáǰ-im=s,   x^waʔ

    get.punched-STV   DET=plank,   none   what   get.changed-MD=3POS,   NEG

         √ƛə́px^w=as

         break.in.two=3CNJ

    "(Though) the plank is **punched**, nothing changed about it, it is not broken."

    Context: A martial artist punched a plank to break it, but it was too hard to break.

         (JF)

(172) yəmɛt tə ləsɛk, x^wuk^wt tań ʔaǰɛms, x^waʔ łɛχɛw

    √**yə́m-it**   tə=√lə́sak,   x^wúk^wt   táḿ   √ʔáǰ-im=s,   x^waʔ   √łáχ\áw

    get.kicked-STV   DET=bag,   none   what   get.changed-MD=3POS,   NEG   go.bad\STV

    "(Though) the (punch)bag is **kicked**, nothing changed about it, it is not damaged."

    Context: A martial artist kicked a punchbag, but did not damage it.

         (JF)

(173) χɛmɛt tə mɛmʊw, x^wuk^wt tań ʔaǰɛms, x^waʔ ʔɛłɛw

    √**χím-ít**   tə=√máməw,   x^wúk^wt   táḿ   √ʔáǰ-im=s,   x^waʔ   √ʔíł\áw

    get.clawed-STV   DET=cat,   none   what   get.changed-MD=3POS,   NEG   hurt\STV

    "(Though) the cat is **clawed at**, nothing changed about it, it is not hurt."

    Context: A cat got into a fight and got clawed at, but the other cat's claws did not pierce

    the skin.

         (JF)

(174) χεqɛt tᶿ maqsɛn, xʷukʷt taɱ ʔaЯ̌ɛms, qaЯ̌ɛʔot sɪčɛm

    √**χ̓íq-ít**   tᶿ=√máqsan, xʷúkʷt táɱ √ʔáЯ̌-im=s,   qáЯ̌i=ʔut

    √**get.scratched-STV**   1S.POS=nose, none   what get.changed-MD=3POS, still=CLT

        √sə́č-im

        itchy-MD

    "(Though) my nose is **scratched**, it is still itchy."

    Context: Talking about cat hair and allergies.

        (JF)

(175) **??** qəpɛt məmqɛyustən, xʷukʷt taɱ ʔaЯ̌ɛms, qaЯ̌ɛʔot ʔaʔyis

    √**q̓ə́p-it**   √mə́mqayustən, xʷúkʷt táɱ √ʔáЯ̌-im=s,   qáЯ̌i=ʔut

    get.touched-STV   window,   none   what get.changed-MD=3POS, still=CLT

        √ʔaʔyis

        clean

    "(Though) the window is **touched**, nothing changed about it, it is still clean."

    Context: A child touches the glass of a store window, but leaves no finger marks.

        (JF)