

ǰaqaʔ: A generalized exclamation operator in ʔayʔaǰuθəm¹

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Abstract. In this paper, we present a formal analysis of the common and yet not well-understood auxiliary *ǰaqaʔ* in ʔayʔaǰuθəm (a.k.a. Comox-Sliammon; Central Salish). Based on original fieldwork, we argue that speakers can use *ǰaqaʔ* not only to express wishes or worries, but also to signal the unexpectedness or predictableness of the denoted proposition. To account for this initially perplexing banquet of meanings, we propose — in the spirit of Grosz (2011, 2014) — that *ǰaqaʔ* functions as an exclamation operator (*EX*) that serves to express the speaker’s emotion towards the status of a proposition on a contextually salient scale. As predicted by this approach, the use of *ǰaqaʔ* can give rise to optatives, adversatives, polar exclamatives, and congruent exclamatives — a novel type of exclamative we discover in the process. A claim that emerges from the analysis is that Grosz’s *EX* operator, which is covert in German and English, may be realized overtly in other languages.

Keywords: ʔayʔaǰuθəm, optatives, adversatives, polar exclamatives, congruent exclamatives.

1. Introduction

This paper provides a first analysis of the elusive auxiliary *ǰaqaʔ* in ʔayʔaǰuθəm (Comox-Sliammon; ISO 639-3: coo), a severely endangered Central Salish language traditionally spoken by four communities — the Tla’amin, Klahooshe, Homalco, and K’ómoks — along the Northern Strait of Georgia in British Columbia. According to the most recent survey by the First Peoples’ Cultural Council, approximately 47 L1 speakers remain (FPCC 2018).

As noted by Reisinger (2018), the auxiliary *ǰaqaʔ* gives rise to an interesting puzzle for analysis due to the plethora of meanings associated with it. Drawing on original fieldwork, we argue that *ǰaqaʔ* is used not only to express a speaker’s wishes (1) or worries (2), but also to signal the unexpectedness (3) or predictableness (4) of the denoted proposition.²

- (1) *ǰaqaʔ*=čx^w=ča niš s=t^θuk^w.
JAQAʔ=2SG.SBJ=EPIS be.here NMLZ=today
‘I wish you were here today.’

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² The abbreviations used in this paper follow the Leipzig Glossing Rules, with the following additions: CLT ‘clitic’, CONJ ‘conjunction’, CTR ‘control transitive’, DPRT ‘discourse particle’, EPIS ‘epistemic modal’, MD ‘middle’, NCTR ‘non-control transitive’, PRT ‘particle’, and STV ‘stative’.

- (2) *Context: Talking about perishable food.*
 hu=ga qəms-at. **jaqa?** laxaw.
 go=IMP put.away-CTR JAQA? spoil/break.down
 ‘Go put it away. It might spoil.’
- (3) **jaqa?** ʔiy q^wəl təs Hoss.
 JAQA? CONJ come arrive Hoss
 ‘Oh, Hoss arrived!’
- (4) **jaqa?**=gut ma~matiyq k^w=tala.
 JAQA?=DPRT.EXCL IPFV~borrow DET=money
 ‘He always comes to borrow money.’

Reisinger (2018) suggests that *jaqa?* may be a circumstantial modal, but leaves a full analysis for future work. Based on more recent fieldwork, we argue that *jaqa?* is not a circumstantial modal, but rather an overt instantiation of the (covert) exclamation operator (*EX*) proposed in Grosz (2011, 2014). Like the *EX* operator, *jaqa?* is used to create optatives, adversatives, and polar exclamatives. It also occurs in a type of exclamation that has not been described in previous literature, which expresses that the speaker finds the proposition extremely likely (in contrast to polar exclamatives, which express that the speaker finds the proposition unlikely); we label these *congruent exclamatives*.

The data presented in this paper come from five speakers of the Tla’amin community, one speaker from Homalco, and two Vancouver-based speakers. To gather these data, we employed a variety of semantic fieldwork methodologies, including direct translation with contextual support and judgment tasks (see Matthewson 2004). We also provide examples volunteered spontaneously during elicitation, and examples available in previous documentation.

The remainder of the paper is organized as follows. Section 2 examines the different interpretations associated with *jaqa?* more closely, while Section 3 briefly introduces Grosz’s (2011, 2014) *EX* operator. Subsequently, Section 4 illustrates how his analysis can be used to account for the data presented in this paper. Lastly, Section 5 concludes this paper.

2. The Readings

The following subsections will illustrate the different readings evoked by the presence of *jaqa?*. Section 2.1 will explore the association of *jaqa?* with wishes, hopes, and desires, while Section 2.2 is dedicated to cases that express worries and concerns. Section 2.3 focuses on the ‘surprise’ readings, and Section 2.4 describes cases that involve excessive predictability. Three of the four readings are indicated by accompanying particles. However, as will become clear in the following subsections, these particles cannot themselves contribute the different readings (they certainly could not contribute these readings without *jaqa?*), though we will argue in Section 4 that they do play a role in disambiguating the different readings.

2.1. Wishes

Sentences in which *jaqa?* combines with the enclitic *ča*, an epistemic modal (see Section 4.1), are used to express wishes, hopes, and desires. These ‘wish’ cases are non-factive,³ either expressing: (i) a wish that has already been frustrated (i.e., the prejacent φ is counterfactual), or (ii) a wish whose realization is uncertain (i.e., φ is non-counterfactual). The former involve either past or present temporal orientation (T.O.), as shown in (5) and (6).⁴ The latter tend to be future-oriented, as shown in (7). However, the non-counterfactual reading is also compatible with a non-future orientation, namely in cases where the speaker does not know at the time of utterance (UT) whether the denoted proposition is true or not, as exemplified by (8) and (9).

- (5) *Context: Something I wanted was on sale, but I hesitated too long and now it is gone.*
jaqa?=č=ča hiya yəq-t-ul.
 JAQA?=1SG.SBJ=EPIS right.away buy-CTR-PST
 ‘I should have bought it right away.’ [counterfactual: past T.O.]
- (6) *Context: I want to go sailing.*
jaqa?=ča=ʔut puh-<i>m.
 JAQA?=EPIS=EXCL blow-MD<STV>
 ‘I wish it were windy.’ [counterfactual: present T.O.]
- (7) **jaqa?**=ča ʔəy tʰuk^w kwəy.
 JAQA?=EPIS good day tomorrow
 ‘I hope it’s sunny tomorrow.’ [non-counterfactual: future T.O.]
- (8) *Context: One of your friends is out on a hiking trip in the mountains. You hope that he has good weather for his hike.*
jaqa?=ča x^waʔ čə~čl=as s=čaʔat.
 JAQA?=EPIS NEG IPFV~rain=3SBJV NMLZ=now
 ‘I hope it is not raining right now.’ [non-counterfactual: present T.O.]
- (9) *Context: One of your friends went for a hike in the mountains yesterday. You hope that he had good weather for his hike.*
jaqa?=ča x^waʔ čəl=as s=jas-ul.
 JAQA?=EPIS NEG rain=3SBJV NMLZ=yesterday-PST
 ‘I hope it didn’t rain yesterday.’ [non-counterfactual: past T.O.]

2.2. Worries

In addition to wishes, *jaqa?* sentences can also be used to express worry or concern. Just like the ‘wish’ cases, this reading is restricted to non-factive propositions. More precisely, we have

³ Following Grosz (2011), we use the term *non-factive* to cover all cases where φ is not considered true by the speaker. This includes both counterfactual readings (i.e. the speaker knows φ to be false) as well as non-counterfactual readings (i.e., the speaker does not know whether φ is true or false).

⁴ Following Condoravdi (2002), we use the term *temporal orientation* to describe the relation between the temporal perspective (which in exclamatives is always the utterance time) and the time of the described event.

found only non-counterfactual worries, and only with a future temporal orientation, as illustrated by the examples in (10) and (11) below.⁵

- (10) **jaqaʔ**=č k^wət-əm.
 JAQAʔ=1SG.SBJ get.sick-MD
 ‘I might get sick.’ [non-counterfactual: future T.O.]
- (11) **jaqaʔ**=čx^w mamaq^wl.
 JAQAʔ=2SG.SBJ get.hurt
 ‘You might get hurt.’ [non-counterfactual: future T.O.]

2.3. Surprising Events

In addition to wishes and worries, speakers can also use *jaqaʔ* to mark factive propositions that they consider surprising or unexpected, as illustrated by the examples in (12) and (13). Often, but not always, the particle *ʔiy* — which usually functions as a coordinating conjunction — directly follows *jaqaʔ* in these cases.

- (12) *Volunteered context: Someone arrived unexpectedly.*
jaqaʔ (ʔiy) q^wəl təs.
 JAQAʔ CONJ come arrive
 ‘Oh, he arrived!’
- (13) **jaqaʔ** ʔiy ʔa~ʔax^w s=k^wəʃuɫ.
 JAQAʔ CONJ IPFV~snow NMLZ=morning
 ‘Oh, it’s snowing this morning!’
Consultant’s comment: “It’s like ... something you didn’t expect.”

2.4. Predictable Events

Lastly, *jaqaʔ* can also combine with the clitic *gut* (see Section 4.4) and a factive proposition, giving rise to a reading where the event is extremely predictable to the speaker, as shown in (14) to (15).

- (14) *Context: Someone you don’t want to see keeps dropping by.*
jaqaʔ=gut q^wəl təs.
 JAQAʔ=DPRT.EXCL come arrive
 ‘Here they are again!’

⁵ We surmise that non-counterfactual readings with a past or present T.O. (e.g., ‘They left fairly late this morning. I’m worried they might have missed their ferry.’) should be possible as well. However, when we tried to elicit sentences like this, speakers rejected them and instead offered sentences with a future orientation. Currently, it is not clear whether readings with a past or present T.O. are completely unavailable, or whether speakers simply did not find the provided contexts to be the right contexts to support these readings. We also have not encountered counterfactual worries. It seems likely that these do not exist. After all, while it is possible to *wish* that something had happened, it seems less reasonable conceptually for someone to *worry* that something had happened once it is known that it did not.

- (15) **ǰaqaʔ**=gut ʔuk^wamił.
 JAQAʔ=DPRT.EXCL finish.food
 ‘They’re always running out of food.’

In general, speakers tend to judge the prejaacent in *ǰaqaʔ=gut* constructions as unpleasant or intrusive, as illustrated by the examples above. Yet, it seems this adversity is not an integral part of the construction itself. Given the right context and the right intonation, *ǰaqaʔ=gut* is also compatible with propositions that are predictable and pleasant, as highlighted by (16), and propositions considered neutral, as in (17). This suggests that the construction itself only accounts for the predictability component, whereas any emotive flavours arise via implicature.

- (16) *Context: Someone is always bringing you seafood, which you love.*
ǰaqaʔ=gut t̪ə~t̪q-aʔam-θ-as k^w=ǰanx^w.
 JAQAʔ=DPRT.EXCL IPFV~bring-IND-1SG.OBJ-3ERG DET=fish
 ‘He’s always bringing me fish.’

- (17) *Context: Freddie is always driving people to town.*
ǰaqaʔ=gut hu~θu k^w=tisk^wət.
 JAQAʔ=DPRT.EXCL IPFV~go DET=Powell.River
 ‘He’s always going to Powell River.’
Researcher: “Can that be just an observation or does it mean that I’m annoyed by it?”
Consultant’s comment: “...it can be just an observation.”

2.5. Summary

The preceding sections have shown that the auxiliary *ǰaqaʔ* is an astonishingly versatile marker. Table 1 provides a summary of the different forms and their properties:

Table 1: The auxiliary *ǰaqaʔ* and its readings

	WISHES	WORRIES	SURPRISING EVENTS	PREDICTABLE EVENTS
FORM	<i>ǰaqaʔ=č̣a</i>	<i>ǰaqaʔ</i>	<i>ǰaqaʔ (ʔiy)</i>	<i>ǰaqaʔ=gut</i>
FUNCTION	The speaker wishes that φ	The speaker worries that φ	The speaker finds φ surprising	The speaker finds φ predictable
STATUS OF φ	non-factive	non-factive	factive	factive

3. Towards an Analysis

In the spirit of Grosz (2011, 2014), we propose that the different and seemingly un-unifiable readings associated with *ǰaqaʔ* can in fact be unified if we treat this auxiliary as an overt exclamation operator that expresses the speaker’s emotion towards the status of a proposition on a contextually salient scale. In the following subsections, we briefly review the main components of Grosz’s proposal.

3.1. Optatives, Adversatives, and Polar Exclamatives

Grosz (2011) focuses on three types of constructions — optatives, adversatives, and polar exclamatives — which resemble each other in that they all express how the speaker feels towards the denoted proposition.

Optatives express the speaker's wishes, hopes, or desires, without making use of an overt lexical item that means 'wish', 'hope', or 'desire', as illustrated by the examples from English and German in (18) below.

- (18) a. If only I had brought an umbrella!
Paraphrase: 'I wish I had brought an umbrella.'
- b. Oh, that I had never left you! [T. S. Arthur. (1868). *After the Storm*.]
Paraphrase: 'I wish that I had never left you.'
- c. Wenn ich nur die Zeit zurückdrehen könnte!
if I only the time turn.back could
Literally: 'If only I could turn back time!'
Paraphrase: 'I wish I could turn back time.'

Adversatives, on the other hand, convey the speaker's disapproval, disgust, or dislike — once again, without the presence of any overt lexical items that carry this meaning. While English seems to lack independent adversatives (Grosz 2011:117), such constructions can be found in German, as exemplified by the sentences in (19).

- (19) a. Mein Gott! Der Olaf! Wenn ich den schon sehe!
my God the Olaf if I him already see
Literally: 'Oh my God! Olaf! If I already see him!'
Paraphrase: 'It makes me sick if I see Olaf.' [Scholz 1991:48; Grosz 2011:62]
- b. Dass die aber auch immer Vanilleeis mitbringt!
that she but also always vanilla.ice.cream brings
Literally: 'That she always brings vanilla ice cream!'
Paraphrase: 'I find it disappointing that she always brings vanilla ice cream.'
[Grosz 2011:236]

Lastly, polar exclamatives express the speaker's surprise, shock, or amazement at a fact. Just like the optative and adversative constructions, these utterances do so without containing lexical items that mean 'surprise', 'shock', or 'amazement', as highlighted by the examples in (20).

- (20) a. That you could ever marry such a man!
Paraphrase: 'I did not expect that you could ever marry such a man.'
[Quirk et al. 1985:841; Grosz 2011:39]
- b. Dass die dort gewohnt haben!
that they there lived have
Literally: 'That they lived there!'
Paraphrase: 'It amazes me that they lived there.'
[Rosengren 1992:278; Grosz 2011:40]

3.2. The EX Operator

Grosz (2011) claims that all three of these constructions contain a covert exclamation operator, which he labels *EX*. This operator serves to express the speaker's emotion or evaluative attitude ε towards the fact that the denoted proposition φ exceeds a salient threshold on a contextually provided scale S . As illustrated by the overview in (21), every construction relies on a different scale. For instance, in the case of optatives, the denoted proposition is measured against a scale of speaker-preference.

(21) *Constructions and their respective scales:*

	CONSTRUCTION	EMOTION	SALIENT SCALE
a.	optatives	wishes, hopes, desires	speaker-preference
b.	adversatives	disapproval, dislike, disgust	speaker-dispreference
c.	polar exclamatives	surprise, shock, amazement	speaker-unlikelihood

In addition, the *EX* operator is also expressive (Grosz 2011:87). By this, Grosz means that *EX* combines with a proposition of type $\langle s, t \rangle$ and maps it onto felicity conditions which capture how the speaker feels towards the denoted proposition. Thus, the denotation of $EX(S)(\varphi)$ yields a semantics that is not truth- but rather felicity-conditional, leading to the lexical entry in (22).⁶

(22) For any scale S and proposition φ , interpreted in relation to a context c and assignment function g , an utterance $EX(S)(\varphi)$ is felicitous iff $\forall \psi [\text{THRESHOLD}(c) >_S \psi \rightarrow \varphi >_S \psi]$.

“EX expresses an emotion that captures the fact that φ is higher on a (speaker-related) scale S than all contextually relevant alternatives ψ below a contextual threshold.”

where $\text{THRESHOLD}(c)$ is a function from a context into a set of worlds / a proposition that counts as high with respect to a relevant scale S . [Grosz 2011:91]

To sum up, an utterance of the form $EX(S)(\varphi)$ has the following properties: (i) the speaker has an emotion or evaluative attitude ε towards the proposition φ at UT, (ii) the speaker wants not just to *describe*, but rather to *express* ε , and (iii) ε is based on a scale (e.g., a scale of speaker-preference in the case of optatives).

3.3. The Role of Particles

In addition to this *EX* operator, we also need something to help us identify the appropriate scale against which the denoted proposition will be measured. For instance, the German utterance in (23) can be interpreted as a polar exclamative, an optative, or an adversative — depending on the context.⁷

⁶ Following this argument, Grosz would consider the sentence in (i), which does not involve the *EX* operator, as truth conditional. The optative construction in (ii), on the other hand, would be regarded as felicity-conditional within Grosz's analysis due to the presence of the *EX* operator.

(i) [I wish I had gone to Galway.] $\Rightarrow$ **describes** my desire

(ii) [EX [If only I had gone to Galway.]] $\Rightarrow$ **expresses** my desire

⁷ A reviewer notes that the optative reading in (23) is not available to them. While this judgment does not match the intuitions of the first author, we acknowledge that the optative reading is indeed only marginally conceivable without further context. For a parallel example with these readings, see Grosz (2011:146).

- (23) Dass die Saoirse gegangen ist!
 that the Saoirse left is
 Literally: ‘That Saoirse left!’
 Most plausible paraphrase: ‘I am surprised [that Saoirse left].’
 Conceivable paraphrase: ‘I hope [that Saoirse left].’
 Conceivable paraphrase: ‘I am disappointed [that Saoirse left].’

Grosz (2011:146) highlights that these three readings can be disambiguated by adding certain cues. For instance, adding the particle *nur* (‘only’) to the sentence above will make the optative reading salient, as shown in (24). Adding the particle *auch* (‘also’), on the other hand, will foreground the adversative interpretation, as shown in (25).⁸ This process of disambiguation, which essentially represents the elimination of competing readings, is driven by incompatibilities between certain particles and certain utterance types.⁹

- (24) Oh, dass die Saoirse **nur** gegangen ist!
 oh that the Saoirse only left is
 ‘I hope that Saoirse left.’

- (25) Dass die Saoirse **auch** gegangen ist!
 that the Saoirse also left is
 ‘I am disappointed that Saoirse left.’

Particles like these can be found not only in German (e.g., *nur*, *doch*, *aber*, *schon*, *auch*, *wenigstens*...), but also in English, as illustrated by the optative constructions in (26) below.

- (26) a. If I’d **only** listened to my parents!
 b. If I could **just** make them understand my point of view!
 c. If I could **but** explain! [Quirk et al. 1985:842; Grosz 2011:13]

In Grosz’s (2011) proposal, these prototypical particles are truth-conditionally vacuous and do not convey optativity themselves. Instead, they act as presupposition triggers that offer additional information with respect to the denoted proposition. Primarily, this additional information modulates the expressed emotion. For instance, *only* presupposes that φ is low on the contextually provided scale, thus giving rise to the notion of ‘moderation’. In the case of optatives, the addition of the particle *only* consequently conveys that φ ‘is really not much to ask for’ (Grosz 2011:268).

The use of such particles is governed by a constraint that Grosz (2014:93) calls *Utilize Cues*:

- (27) *Utilize Cues*:
 a. If a marked use of an ambiguous utterance can be made more salient by adding certain elements (e.g., particles, interjections, intonational tunes) to this utterance,

⁸ A reviewer points out that the addition of *auch* in (25) does not suffice to clearly disambiguate the adversative from the polar exclamative reading and suggests that prosody may be a better disambiguator. While we believe that the presence of *auch* does foreground the adversative reading (at least to some extent), we agree that this effect can be overturned by certain intonational tunes.

⁹ For a detailed discussion of this phenomenon, see Grosz (2011:386–387).

- the addition of one (or more than one) such element is obligatory. Such elements qualify as cues for the respective utterance use.
- b. The requirement in (27a) can be obviated if the intended utterance use is independently prominent in the utterance context.

Essentially, this constraint posits that speakers must make use of available cues (e.g., particles, interjections) whenever the intended reading of a given utterance is marked and not sufficiently supported by the context — as the hearer will otherwise revert to the most unmarked interpretation in the given context. Often, this leads to the impression that particles are quasi-obligatory (Grosz 2011:387–389; 2014:95).¹⁰

4. *ǰaqaʔ* as an overt *EX* operator

With the theoretical background in place, this section shows how Grosz’s (2011, 2014) analysis can be used to account for the *ǰaqaʔ* data which we have found in ʔayʔaǰuθəm. Essentially, we argue — in the spirit of Grosz — that *ǰaqaʔ* is an overt *EX* operator which expresses that ϕ is higher on a speaker-related scale S than all contextually relevant alternatives ψ below a contextually determined threshold.¹¹ In this way, *ǰaqaʔ* (S) (ϕ) maps the descriptive content ϕ to expressive content, communicating an emotion or evaluative attitude toward ϕ .

- (28) $\llbracket \textit{ǰaqaʔ} \rrbracket (S) (\phi)$ is felicitous iff $\phi >_S \text{THRESHOLD}(c)$
 where $\phi >_S \text{THRESHOLD}(c)$ abbreviates $\forall \psi [\text{THRESHOLD}(c) >_S \psi \rightarrow \phi >_S \psi]$
 and THRESHOLD is a function from a context into a set of worlds/a proposition that counts as high with respect to a relevant scale S . [adapted from Grosz 2011:91]

For the ‘wish’ cases presented in Section 2.1, the denoted proposition is measured against a scale of speaker-preference, consequently resulting in an optative reading. Conversely, the ‘worry’ cases from Section 2.2 involve a scale of speaker-dispreference, which evokes an adversative reading. The ‘surprise’ cases described in Section 2.3 involve a scale of speaker-unlikelihood and, therefore, can be classified as polar exclamatives.

At this point, all three readings that Grosz (2011) describes have also been attested in ʔayʔaǰuθəm. In addition, we propose the existence of one more construction, which we will call *congruent exclamatives*. These involve a scale of speaker-likelihood and, consequently, form the counterpoint to polar exclamatives. More specifically, we propose that, while polar exclamatives highlight the contrast between what is the case and what is expected (Grosz 2011:383), congruent exclamatives emphasize the congruence between what is the case and

¹⁰ Many details of this constraint are yet to be worked out, such as the relative weight of different kinds of cues (e.g., particles vs. intonation). We leave this for future research.

¹¹ According to Grosz (2011), English optative constructions consist of a covert *EX* operator which scopes over an overt complementizer, such as *if* or *that*. We argue that *ǰaqaʔ* is not a complementizer based on the fact that it never introduces a subordinate clause. Instead, we propose that *ǰaqaʔ* acts as an overt *EX* operator which does not require the presence of a complementizer. While this approach accounts for the cases discussed in this paper, there are certain apparent optative constructions in which *ǰaqaʔ* does not appear, as in (i). It may be necessary to posit a covert *EX* operator to handle these cases.

(i) x^waʔ=an=χ^wuʔt k^wət-əm=an.
 NEG=1SG.SBJV=CLT sick-MD=1SG.SBJV
 ‘I hope I don’t get sick.’

[Watanabe 2016:322]

what is expected. In other words, the facts in the real world match our expectations, thus allowing the speaker to express that they consider the denoted proposition to be highly predictable. By introducing this new category, we fill a notable gap in Grosz's (2011) paradigm of exclamative scales.¹²

The four different readings that we have outlined above can be disambiguated via certain cues (e.g., enclitics and particles) — just as predicted by Grosz's (2011, 2014) analysis. The disambiguating function of the cues is illustrated in the examples (29) to (32), where the same predicate (*łaxaw* 'to spoil / to break down') in combination with *jaqa?* receives different readings depending on which enclitic or particle appears in the construction.

(29) *Context: Talking about a car.*

jaqa?=*ča* *łaxaw*.

JAQA?=EPIS spoil/break.down

'[I hope] that it breaks down!'

Consultant's comment: "... because you want a new one."

[optative]

(30) *hu=ga* *qəms-at.* *jaqa?* *łaxaw.*

go=IMP put.away-CTR JAQA? spoil/break.down

'Go put it away. [I'm worried] that it will spoil!'

[adversative]

(31) *jaqa?* (*ʔiy*) *łaxaw.*

JAQA? CONJ spoil/break.down

'Oh, [I'm surprised] that it spoiled!'

[polar exclamative]

(32) *jaqa?*=*gut* *łəχ~łaxaw* *šə=ʔatnupil-s.*

JAQA?=DPRT.EXCL PL~spoil/break.down DET=car-3POSS

'[It's predictable] that her car is breaking down again!'

[congruent exclamative]

Table 2 provides an overview of the different constructions, the scales they are based on, and the cues that help foreground the intended reading.

¹² It seems plausible that congruent exclamatives can also be found in other languages. For instance, the German example in (19b) — repeated below as (i) — could also be attributed to this category. Grosz (2011:236) argues that this utterance expresses disapproval and, consequently, should be classified as an adversative. In contrast, we propose that this utterance is, at its core, a congruent exclamative which highlights the predictability of the denoted proposition, and that the disapproval interpretation arises independently via certain intonational tunes. This reclassification is motivated by the fact that, in other contexts, the same construction is also compatible with notions like appreciation or admiration, as exemplified in (ii). Thus, the common denominator that remains is the high predictability of $\varnothing$.

(i) *Dass die aber auch immer Vanilleeis mitbringt!*
that she but also always vanilla.ice.cream brings

Literally: 'That she always brings vanilla ice cream!'

Grosz' original paraphrase: '[It's disappointing] that she always brings vanilla ice cream.'

Updated paraphrase: '[It's predictable] that she always brings vanilla ice cream.'

(ii) *Context: You appreciate that your friend sent you a card for your birthday, as she does every year.*

Dass die aber auch immer an meinen Geburtstag denkt!
that she but also always on my birthday thinks

'[It's predictable] that she always remembers my birthday.'

Table 2: An overview of the different *ǰaqaʔ* constructions

	WISHES	WORRIES	SURPRISING EVENTS	PREDICTABLE EVENTS
CONSTRUCTION	Optatives	Adversatives	Polar Exclamatives	Congruent Exclamatives
RELEVANT SCALE	Speaker- Preference	Speaker- Dispreference	Speaker- Unlikelihood	Speaker- Likelihood
CUE	<i>ča</i>	—	(<i>ʔiy</i>)	<i>gut</i>
STATUS OF <i>φ</i>	non-factive	non-factive	factive	factive

One positive side effect of the present analysis is that it explains why all *ǰaqaʔ* constructions appear to be speaker-oriented. In the optative utterance in (33), for instance, it is the speaker — not the second person subject — that holds the wish, thus giving rise to a bouletic interpretation. Similarly, it is the speaker — not the bear — that expresses disapproval towards the denoted proposition in the adversative case in (34). The polar exclamative in (35) is speaker-oriented as well, as the subject of the clause (i.e., the meat) is evidently incapable of feeling surprise. Likewise, ‘the rain’ in the congruent exclamative in (36) cannot judge the predictability of the proposition — instead, it is the speaker who makes this judgment.

- (33) **ǰaqaʔ**=čx^w=ča=qəł q^wəł qamin-ul.
 JAQAʔ=2SG.SBJ=EPIS=IRR come accompany-PST
 ‘You should have come along.’ [optative]

- (34) *Context: A bear is coming and you think that it might go into your smokehouse and eat your fish.*
 q^wə~q^wəł tə=miχał. k^wən-i-t=čx^w! **ǰaqaʔ** q^wəł mək^w-t-as
 IPFV~come DET=bear see-STV-CTR=2SG.SBJ JAQAʔ come eat-CTR-3ERG
 tə=ms=ǰanx^w.
 DET=1 PL.POSS=fish
 ‘A bear is coming. Look! It might eat our fish!’ [adversative]

- (35) **ǰaqaʔ** ʔiy laxaw.
 JAQAʔ CONJ spoil/break.down
 ‘Oh, it spoiled!’ [polar exclamative]

- (36) **ǰaqaʔ**=gut čə~čł.
 JAQAʔ=DPRT.EXCL IPFV~rain
 ‘It’s always raining.’ [congruent exclamative]

Not only is *ǰaqaʔ* generally speaker-oriented, it cannot express the attitude of another party toward the proposition even where the context sets this up.¹³ For instance, (37) is only felicitous

¹³ An exception to this is the use of exclamatives in narratives, where *ǰaqaʔ* constructions may sometimes express the attitude of the protagonist. Although we have not investigated these cases in detail, it seems plausible that they involve some kind of perspective shifting commonly associated with free indirect discourse (see Eckhardt 2014).

under a speaker-oriented reading, and (38), where there is no salient speaker-oriented reading available, was strongly dispreferred.

(37) *Context: Someone really wants to stay here, but you don't want that person around.*

- # **jaqa?**=ča niš ta?a.
 JAQA?=EPIS be.here DEM
 'He wishes to stay here.' (Ok for 'I wish that he would stay here.')

(38) *Context: I see that you are really surprised by my arrival.*

- # **jaqa?**=č q^wəl təs!
 JAQA?=1SG.SBJ come arrive
 '[You find it surprising] that I've arrived.'

As discussed earlier, optatives and adversatives are non-factive, whereas polar exclamatives and congruent exclamatives are factive. This aligns with Grosz's (2011:454) observation that (dis)preference scales are associated with non-factive mood, whereas (un)likelihood scales are associated with factive mood. In Grosz (2011), the semantic mood — related to, but distinct from morphological mood — encodes the distinction between factive, non-counterfactual, and counterfactual propositions. Factive and counterfactual moods involve presuppositions that the speaker believes ϕ to be true or false, respectively. Non-counterfactual mood does not introduce any presupposition regarding the truth or falsity of ϕ .

(39) Semantic Mood (Grosz 2011:78–79)

- a. $\llbracket \text{Mood}_{\text{FACT}} \rrbracket^c = \lambda\phi . \lambda w : \text{DoX}_{\text{Speaker}}(w) \subseteq \phi . \phi(w)$ [factive]
 "The speaker presupposes ϕ to be true."
 b. $\llbracket \text{Mood}_{\text{CF}} \rrbracket^c = \lambda\phi . \lambda w : \phi \cap \text{DoX}_{\text{Speaker}}(w) = \emptyset . \phi(w)$ [counterfactual]
 "The speaker presupposes ϕ to be false."
 c. $\llbracket \text{Mood}_{\text{NCF}} \rrbracket^c = \lambda\phi . \lambda w . \phi(w)$ [non-counterfactual]
 (Mood_{NCF} does not trigger any presupposition w.r.t. the truth or falsity of ϕ)

In the constructions with *jaqa?* in *ʔayʔajuθəm*, propositions interpreted as factive, counterfactual, and non-counterfactual have no overt mood marking. We propose that the semantic mood is determined by a combination of context and the contribution of clitics, as will be explored in more detail in the following subsections.

4.1. The Optatives

As already indicated, the 'wish' readings presented in Section 2.1 can be classified as optative constructions. As such, they are only felicitous if the denoted proposition lies above a salient threshold on the scale of speaker-preference, as is the case for 'it breaks down' in example (40). To eliminate competing readings, the clitic *ča* serves as optativity cue.

- (40) **jaqa?**=ča laxaw.
 JAQA?=EPIS spoil/break.down
 '[I hope] that it breaks down!'
Consultant's comment: "... because you want a new one."

To get an idea of the exact contribution of this optativity cue, we have to take a look at its canonical use. As illustrated by the declarative utterance in (41), *ǰa* usually acts as an inferential modal (Watanabe 2003; Reisinger 2018). As such, it can only be used felicitously when the speaker does not have direct evidence for the denoted proposition (42a). If this condition is met, *ǰa* makes the strong modal claim that φ is true in all worlds within the speaker's epistemic modal base $\cap f(w)$, as sketched in (42b).

- (41) ʔamut=ǰa Freddie. ʔwəw-it tə=nikwayu-s.
at.home=EPIS Freddie get.lit-STV DET=light-3POSS
'Freddie must be at home. His lights are on.'

(42) The lexical semantics of the inferential modal *ǰa*:

- a. *presupposition*:
 $\llbracket \dot{c}a \rrbracket^{c,w}(f)(\varphi)$ is defined iff f is an epistemic modal base and φ is a proposition, and the speaker does not have direct evidence for φ in c .
 b. *truth-conditional content*:
 When defined, $\llbracket \dot{c}a \rrbracket^{c,w} = \lambda f_{\langle s, \langle st, t \rangle \rangle} . \lambda \varphi_{\langle s, t \rangle} . \forall w' [w' \in \cap f(w) \rightarrow \varphi(w') = 1]$

Due to the presupposition in (42a), *ǰa* — like other epistemic modals — is incompatible with propositions whose truth value the speaker already knows.¹⁴ We propose that this generalization also applies in the *ǰaqaʔ* cases. More precisely, since *ǰa* can only occur in non-factive contexts, its presence eliminates both the polar exclamative and the congruent exclamative reading, forcing the selection of a non-factive (non-counterfactual or counterfactual) mood. Additional contextual cues, such as intonation, will further eliminate the competing adversative interpretation, thus foregrounding the intended optative reading.¹⁵

While the presuppositional content of epistemic *ǰa* also applies in the non-canonical *ǰaqaʔ* cases, its truth-conditional content — as formalized in (42b) — does not. Thus, in the spirit of Grosz (2011, 2014), we argue that this particle is truth-conditionally vacuous and represents a “weaker” version of its canonical usage.¹⁶

At this point, we have all the core ingredients needed to account for the optative construction in (40) above. Their semantic contributions are summarized in (43) below.

- (43) a. *felicity conditions*:
 $\llbracket \dot{c}aqaʔ \rrbracket^{c,w} (S_{\text{Speaker-Preference}})$ (**it breaks down**) is felicitous iff
 $\forall \psi [\text{THRESHOLD}(c) > \text{Speaker-Preferences } \psi \rightarrow \text{it breaks down} > \text{Speaker-Preferences } \psi]$
 “The speaker expresses the emotion that [**it breaks down**] is above a salient threshold on the speaker's preference scale.”
 b. *mood information*:
 Mood_{NCF} does not trigger any presupposition with respect to the truth or falsity of [**it breaks down**].

¹⁴ What counts as *direct evidence* is likely context-sensitive (see von Stechow & Gillies 2010).

¹⁵ As noted by Grosz (p.c.), this predicts that *ǰa* should be able to also occur in the adversative cases, given the right intonation. However, this is not the case, as *ǰa* fully disambiguates the reading in favor of optativity. At present we have no satisfying explanation for this fact.

¹⁶ For a more detailed discussion of this phenomenon, see Grosz's (2011:277) discussion of English *only*.

c. *particle contribution:*

“The particle *ča* triggers the presupposition that the speaker does not have direct evidence for [**it breaks down**].”

Before closing this section, we would like to note that counterfactual optatives often — but not always — include the irrealis marker *qəl*, as shown in (44). In its canonical use, illustrated by the example in (45), this clitic marks counterfactuality. Since optatives are the only *jaqa?* utterances that are compatible with counterfactuality, it seems reasonable to treat the presence of *qəl* in (44) as an additional optativity cue. While this provides further evidence for Grosz’s (2011:387) hypothesis that cues can be accumulated for disambiguation purposes, a detailed semantic analysis of *qəl* has to await another occasion.

- (44) *jaqa?*=čx^w=*ča*=*qəl* niš-uł.
JAQA?=2SG.SBJ=EPIS=IRR be.here-PST
‘You should have been here.’

- (45) ?ut=č=*qəl* x^wa? k^wən-əx^w=an, *qəl* qət^w tə=ms=?aya?
if=1SG.SBJ=IRR NEG see-NCTR=1SG.SBJV IRR burn DET=1PL.POSS=house
‘If I hadn’t seen it, our house would have burnt.’

4.2. The Adversatives

The ‘worry’ readings outlined in Section 2.2 can be classified as adversative constructions. Thus, an utterance like (46) will only be felicitous if the denoted proposition (i.e., ‘it spoils’) exceeds the salient threshold on the scale of speaker-dispreference.

- (46) hu=ga qəms-at. *jaqa?* laxaw.
go=IMP put.away-CTR JAQA? spoil/break.down
‘(Go put it away.) [I’m worried] that it spoils!’

In terms of mood, adversatives always appear with a non-counterfactual mood. This may be due to the fact that worries inherently deal with propositions that are not settled as true or false at the time of utterance.

However, the most striking peculiarity of the adversative constructions in ?ay?ajuθəm is the apparent lack of any overt disambiguators. In particular, the adversative would seem to be ambiguous with the polar exclamative, given the frequent elision of the particle *?iy* in the latter. While this is true on a surface level, our consultants have pointed to an intonational difference in the way *jaqa?* itself is pronounced (vowel lengthening and possibly raised pitch for the polar exclamatives) that disambiguates between these two readings. We therefore speculate that intonation and contextual biases ensure that the hearer can identify the intended interpretation.

The ingredients that give rise to the adversative *jaqa?* utterances are summarized in (47).

- (47) a. *felicity conditions:*
[[*jaqa?*]]^{c,w} (S_{Speaker-Dispreference}) (**it spoils**) is felicitous iff

- $\forall \psi [\text{THRESHOLD}(c) > \text{Speaker-Dispreferences } \psi \rightarrow \text{it spoils} > \text{Speaker-Dispreferences } \psi]$
 “The speaker expresses the emotion that [it spoils] is above a salient threshold on the speaker’s dispreference scale.”
- b. *mood information:*
 Mood_{DEF} does not trigger any presupposition with respect to the truth or falsity of [it spoils].
 - c. *particle contribution:*
 none

4.3. The Polar Exclamatives

The ‘surprise’ readings that we introduced in Section 2.3 can be classified as polar exclamatives. Consequently, the utterance in (48) will only meet the felicity conditions if the proposition (i.e., ‘it spoiled’) exceeds the salient threshold on the scale of speaker-unlikelihood. Since speakers can only express surprise towards a proposition that is true, the semantic mood of polar exclamatives is always factive.

- (48) **ǰaqaʔ ʔiy ɭaxaw.**
 JAQAʔ CONJ spoil/break.down
 ‘Oh, [I’m surprised] that it spoiled!’

As already indicated, speakers can add the particle *ʔiy* — canonically translated as ‘and’ or ‘but’ — to a *ǰaqaʔ* utterance to foreground the polar exclamative reading. The link between conjunction-like elements and the concept of ‘surprise’ is not completely novel from a cross-linguistic perspective. For instance, the literature on modal particles in German has repeatedly called attention to the fact that *aber* ‘but’ can not only be used as an adversative conjunction, but also as a modal particle that suggests counter-expectation (see Hinterwimmer & Ebert 2018, among many others), as in (49):

- (49) Können Sie **aber** tanzen!
 can you but dance
 ‘I’m surprised how well you can dance.’ [Thurmair 1989:191]

Loosely following Hinterwimmer and Ebert’s (2018) analysis of the German particle *aber* ‘but’, we propose the following lexical semantics for *ʔiy*:¹⁷

- (50) a. *presupposition:*
 $\llbracket ʔiy \rrbracket^{c,w}(\varphi)$ is defined iff there is a salient proposition ψ entailing $\neg\varphi$ in c .
 b. *truth-conditional content:*
 When defined, $\llbracket ʔiy \rrbracket^{c,w}(\varphi) = \varphi$

Thus, polar exclamative *ǰaqaʔ* constructions are the result of the following ingredients:

¹⁷ As noted above, *ʔiy* canonically serves either as an additive conjunction (‘and’) or a contrastive conjunction (‘but’). We assume that only the contrastive — but not the additive — realization carries the presupposition presented in (50a), suggesting the existence of two separate lexical entries for the conjunction *ʔiy*.

- (51) a. *felicity conditions:*
 $\llbracket \text{jaqa?} \rrbracket^{c,w} (S_{\text{Speaker-Unlikelihood}}) (\text{it spoiled})$ is felicitous iff
 $\forall \psi [\text{THRESHOLD}(c) > \text{Speaker-Unlikelihood } \psi \rightarrow \text{it spoiled} > \text{Speaker-Unlikelihood } \psi]$
 “The speaker expresses the emotion that [it spoiled] is above a salient threshold on the speaker’s unlikelihood scale.”
- b. *mood information:*
 $\text{Mood}_{\text{FACT}}$ triggers the presupposition that
 $\text{DoX}_{\text{Speaker}} \subseteq \{w: \text{it spoiled in } w\}$
 “The speaker presupposes φ to be true.”
- c. *particle contribution:*
 “The particle ?iy triggers the presupposition that there is a salient proposition ψ entailing $\neg[\text{it spoiled}]$ in the context.”

4.4. The Congruent Exclamatives

Lastly, we argue the utterances presented in Section 2.4 exceed a contextually salient threshold on a scale of speaker-likelihood, consequently expressing that the denoted proposition is more than predictable, as in (52). Just like the polar exclamatives, these congruent exclamatives require a factive mood.

- (52) **jaqa?=gut** $\text{ləx} \sim \text{ləxaw}$ $\text{šə} = \text{?atnupil-s}$.
 JAQA?=DPRT.EXCL PL~spoil/break.down DET=car-3POSS
 ‘[It’s predictable] that her car is breaking down!’

To foreground this interpretation, speakers employ the particle *gut*, which seems to be a contraction of *ga* and *?ut*. The clitic *?ut* is a scalar exclusive that is sometimes used in propositions picking out the top of a scale of alternatives (Huijsmans 2019), as illustrated by example (53) — a use that the English scalar exclusive *just* has as well when it functions as an extreme degree modifier (Morzycki 2012; Beltrama 2016), as exemplified in (54).

- (53) *Context: A character in a storyboard is being described as very industrious.*
 $\text{paya?} = \text{k}^w \text{a} = \text{?ut}$ $\text{x}^w \text{i} \sim \text{x}^w \text{ip-umix}^w$.
 always=QUOT=EXCL IPFV~sweep-ground
 ‘He was always sweeping.’ [Huijsmans 2019]

- (54) Your shoes are **just** huge. [Beltrama 2016:80]

Beltrama (2016) proposes that extreme degree modifiers (EDMs) are metalinguistic intensifiers that signal that the proposition is stronger than all alternative expressions available to the speaker in the context. We can adopt a slightly modified version of his analysis to model the contribution of *?ut*. As an EDM, *?ut* presupposes that there are alternatives to φ and that all alternatives ψ are lower on the scale than φ . In the congruent exclamatives, we propose that the contextually given alternatives are the same speaker-likelihood scalar alternatives that are quantified over by the *EX* operator.¹⁸ The clitic *?ut* can therefore indicate that φ is the highest

¹⁸ We propose that both operators involve the same set of scalar alternatives because this scale is particularly salient in the context.

proposition out of the alternatives on the speaker's likelihood scale in a given context. Example (55) presents the denotation for this element.¹⁹

- (55) a. *presupposition:*
 $\llbracket \text{ʔut} \rrbracket^{c,w}(\varphi)$ is defined iff $\exists \psi [\psi \in \llbracket \varphi \rrbracket_{\text{ALT}}^c] \wedge \forall \psi [\psi \in \llbracket \varphi \rrbracket_{\text{ALT}}^c \rightarrow [\varphi >_c \psi]]$
 where φ refers to the prejacent and $\llbracket \varphi \rrbracket_{\text{ALT}}^c$ denotes the set of alternatives to φ in c
 b. *truth-conditional content:*
 When defined, $\llbracket \text{ʔut} \rrbracket^{c,w}(\varphi) = \varphi$

The clitic *ga* is less well understood but seems to be a discourse particle, indicating that φ is likely given some ψ in the context, as shown in (56).

- (56) ǰə~ǰl-ul=iyt s=k^wǰul θu ʔap-i-m-ʔul. hil=**ga**
 IPFV~rain-PST=PRT NMLZ=morning go work-STV-MD-PST be=DPRT
 t⁰=hu-sx^w-ul t⁰aytən.
 1SG.POSS=go-CAUS-PST umbrella
 ‘It was raining when I went to work this morning. That’s why I brought an umbrella.’

We therefore propose that *ga* introduces the presupposition presented in (57) but leaves the propositional content unaffected.

- (57) a. *presupposition:*
 $\llbracket \text{ga} \rrbracket^{c,w}(\varphi)$ is defined iff $\exists \psi$ in c , such that $\psi(w) = 1$ and φ is likely given ψ
 b. *truth-conditional content:*
 When defined, $\llbracket \text{ga} \rrbracket^{c,w}(\varphi) = \varphi$

We propose that this presupposition of likelihood given the context disambiguates in favor of a speaker-likelihood scale for the alternatives quantified over by *ǰaqaʔ* and the EDM *ʔut*. The clitic *ʔut* then further contributes that φ is at the top of the likelihood scale, so that these congruent exclamatives involve events that are extremely predictable.

- (58) a. *felicity conditions:*
 $\llbracket \text{ǰaqaʔ} \rrbracket^{c,w}(\text{S}_{\text{Speaker-Likelihood}}(\text{it broke down}))$ is felicitous iff
 $\forall \psi [\text{THRESHOLD}(c) > \text{Speaker-Likelihood } \psi \rightarrow \text{it broke down} > \text{Speaker-Likelihood } \psi]$
 “The speaker expresses the emotion that [it broke down] is above a salient threshold on the speaker’s likelihood scale.”
 b. *mood information:*
 Mood_{FACT} triggers the presupposition that
 $\text{Dox}_{\text{Speaker}} \subseteq \{w: \text{it broke down in } w\}$
 “The speaker presupposes φ to be true.”
 c. *particle contribution ga:*
 “The particle *ga* triggers the presupposition that [it broke down] is likely given some ψ in the context.”
 d. *particle contribution ʔut:*

¹⁹ According to Beltrama (2016), EDMs map truth-conditional to expressive content, so that this content is composed on a separate tier, while the truth-conditional content remains unaltered.

“The particle *ʔut* indicates that [**it broke down**] is the highest proposition on the scale of all contextually given scalar alternatives.”

5. Conclusion

In this paper, we have argued that *ʔaqaʔ* is an overt realization of Grosz’s (2011, 2014) *EX* operator, which allows speakers to construct optatives, adversatives, and polar exclamatives. In addition, we introduced a new type of exclamative, namely congruent exclamatives, that expresses the speaker’s emotion or evaluative attitude towards the predictableness of the denoted proposition, thus filling a striking gap in the original scale system as outlined by Grosz (2011). Lastly, our analysis provides further evidence for the existence of Grosz’s *EX* operator cross-linguistically, highlighting that work on understudied languages is important to the development of our theoretical understanding of optative constructions.

References

- Beltrama, A. 2016. Exploring metalinguistic intensification: The case of Extreme Degree Modifiers. In: C. Hammerly & B. Prickett (eds.), *Proceedings of NELS* 46:79–92.
- Condoravdi, C. 2002. Temporal interpretation of modals: Modals for the present and for the past. In: D. I. Beaver, S. Kaufmann, B. Z. Clark, & L. D. Casillas Martínez (eds.), *The construction of meaning*. Stanford: CSLI Publications: 59–88.
- Eckhardt, R. 2014. *The Semantics of Free Indirect Discourse. How Texts Allow Us to Read Minds and Eavesdrop*. Leiden: Brill.
- FPCC. 2018. *Report on the Status of B.C. First Nations Languages*. Retrieved from <http://www.fpcc.ca/files/PDF/FPCC-LanguageReport-180716-WEB.pdf> on Jun 14, 2019.
- Grosz, P. G. 2011. *On the Grammar of Optative Constructions*. Ph.D. thesis, MIT.
- Grosz, P. G. 2014. Optative markers as communicative cues. *NLS* 22:89–115.
- Hinterwimmer, S. & C. Ebert. 2018. A Comparison of the Modal Particles *fei* and *aber*. In S. Solt & U. Sauerland (eds.), *Proceedings of Sinn und Bedeutung (SuB)* 22:469–486.
- Huijsmans, M. 2019. The scalar exclusive *ʔut* in *ʔayʔaʃuθəm*: ‘No more than’ and no exceptions! *UBC Qualifying Papers* 4. Vancouver: UBCWPL.
- Matthewson, L. 2004. On the methodology of semantic fieldwork. *IJAL* 70(4):369–415.
- Morzycki, M. 2012. Adjectival extremeness: Degree modification and contextually restricted scales. *Natural Language & Linguistic Theory*, 30(2):567–609.
- Quirk, R., S. Greenbaum, G. Leech, & J. Svartvik. 1985. *A comprehensive grammar of the English language*. London: Longman.
- Reisinger, D. K. E. 2018. Modality in Comox-Sliammon. *ICSNL* 53:197–227.
- Rosengren, I. 1992. Zur Grammatik und Pragmatik der Exklamation. In: I. Rosengren (ed.), *Satz und Illokution, Vol. 1*. Tübingen: Niemeyer, 263–306.
- Scholz, U. 1991. *Wunschsätze im Deutschen: formale und funktionale Beschreibung. Satztypen mit Verberst- und Verbletzstellung*. Tübingen: Niemeyer.
- Thurmair, M. 1989. *Modalpartikeln und ihre Kombination*. Tübingen: Niemeyer.
- von Fintel, K. & A. S. Gillies. 2010. Must ... stay ... strong! *NLS* 18:351–383.
- Watanabe, H. 2003. *A Morphological Description of Sliammon, Mainland Comox Salish, with a Sketch of Syntax*. Osaka Gakuin University, Osaka.
- Watanabe, H. 2016. Insubordination in Sliammon Salish. In: N. Evans & H. Watanabe (eds.), *Insubordination*. Amsterdam: John Benjamins, 309–340.