0. Introduction

This paper presents evidence that there is a determiner-type quantification in several Salish languages. We undertake a comparative study of one quantificational element, the word for all, in three languages from two separate divisions of the family: Squamish, from the Central Coast Salish branch, and St'át'imcets (Lillooet) and Secwepemctsin (Shuswap), both from the Northern Interior Salish branch. We show that in each of the three languages, all is neither a main predicate nor a second-order predicate, but a quantifier syntactically associated with an argument. The evidence, and hence our analysis, differs in major respects from that presented by Jelinek (in press) for Straits Salish.

In section 1 we give background information, beginning with a brief discussion of Jelinek's analysis of Straits Salish. In this section we also outline, for each language, basic syntactic information which will be relevant to subsequent discussion and argumentation. The following sections systematically test which syntactic category all belongs to for each language. Section 2 shows that, as Jelinek predicts, all does not function as a main predicate. However, unlike in Straits, we have evidence that all is not a second-order predicate in the languages studied here (section 3). Thus, it is neither an auxiliary nor an adverb. Section 4 argues that all and the DP which defines its range form a single constituent, but that all is neither an adjective nor a relative clause. In section 5 we argue that when all occurs sentence-initially, it has been extracted from a DP. In sections 6 through 8 we present our analysis. We derive the distribution of all from a single base-structure: all is base-generated within DP in the position of a non-predicative adjective. If it remains in-situ it has a non-quantificational reading. However, since it has inherent quantificational force, it may raise by S-Structure to an operator position: Spec, DP. Once this has taken place, Quantifier-raising or Focus movement of the entire DP to an operator position may then occur, or all itself may undergo Quantifier-raising at S-Structure, thus, stranding the DP which defines its range. The analysis extends to cases where the range is a null pronoun. In section 8, we discuss a restriction on the quantifier's range and on the distribution of the topical object marker -tÈlii, when all is separated from its range in St'át'imcets. We derive these two restrictions from the requirement that a quantifier bind a topic, since it presupposes the existence of the set over which it ranges.

If a case can be made for D-type quantification in Salish, as we argue here, then there are significant consequences for the debate on the existence or non-existence of lexical distinctions in Salish. If there is determiner quantification, then we must recognize the existence of noun phrases in these languages.

Because quantification is a vast subject area, there are many interesting issues we have been forced to avoid. For example, we do not examine the behavior of wh-indefinites which can combine with all to produce meanings such as everyone, everything. We also do not discuss in detail the distributive universal quantifier xî7zeg 'each' in St'át'imcets, which will be the subject of future research. Nor do we deal with other quantifiers such as many, or cardinality expressions, except in passing.

1. Background

1.1. Jelinek's analysis of quantification

Jelinek (in press) argues that there is no distinction between nouns and verbs in the Straits Salish lexicon and, consequently, no distinction between the syntactic projection of these categories (NP vs. VP) (see also Kinkade 1983). Jelinek only admits the existence of two syntactic categories in (Straits) Salish: IP and DP. In particular, she claims that 'The Salish lexicon contains in- flected words and various closed list categories' (Jelinek in press:1; emphasis added). Since there are no bare predicates in Salish, there are no predicates that can be used as referring expressions on their own. Under Jelinek's analysis, every predicate is a clause, as illustrated in (1a) from St'át'imcets. A clause combines with a determiner to yield the referential category DP, as is in (1b).

1. a. sìmlhats-tØ [jp woman-3sbs] b. sì smìlhats - Ø a [jp Det [jp woman-3sbs] det]

'She is a woman' 'The woman'

This view has predictions for the syntax of quantification in the language. In particular, the claim that there is no lexical category N and hence no syntactic projection of this category (no maximal projection of the category NP), entails that (at least in Straits), there is no D(determiner)-type quantification. That is, Straits Salish cannot express quantificational notions by means of determiners quantifiers such as every, each, many, most or three since these quantifiers are determiners that are syntactically associated with predicates of the category NP.

If (Straits) Salish lacks bare (uninflected) predicates such as NPs, then the only way of expressing quantification is via A(verb)-type quantification. The claim made by Jelinek is two-fold. First, adverbial quantification and determiner quantification have different syntactic properties: A-Quantifiers belong to the syntactic category 'adverb' or 'auxiliary' and have scope over a clause (a predicate-argument structure), whereas D-Quantifiers belong to the syntactic category 'determiner' and have scope over
arguments (individuals). Second, adverbial quantification and determiner quantification have different semantic properties. Lewis (1975) named the former type of quantification unselective binding: a single adverb of quantification will bind any free variable in its scope.

A second important feature of Jelinek's analysis is the distinction between weak and strong quantifiers (Milsark 1977). She analyses weak quantifiers (which include existentials such as some, cardinal numbers and quantifiers such as many) as main predicates, and strong quantifiers (such as all or most) as adverbial second-order predicates. This distinction is illustrated below.

2. a. Nen ce skgnex
   big/many=3abs det fish
   'They are many, the fish'
   (Jelinek in press:26)

   b. * mek ce skgnex
      all=3abs det fish
      *They are all, the fish'
      (Jelinek in press:26)

(2a) shows that a weak quantifier like Nen can be the main predicate of the sentence: it has scope over the absolutive argument. In contrast, (2b) shows that strong quantifiers like the universal quantifier mek cannot occur alone. As shown in (2c), mek can only occur connected to the main predicate via a LINK particle; that is, it must have scope over a predicate/argument structure.

2. c. mek 'aw 'awa-s-aw-3sg
    all=3abs link neg-irr-link-white
    'All of them are not white'
    (Jelinek in press:25)

The study of quantification in Salish languages has fundamental implications for Universal Grammar. First, the question of whether or not "Salish lacks 'essentially quantificational' NPs" (Jelinek in press:1) is closely tied to the question of the universality of 1) lexical categories such as nouns and verbs and 2) their respective syntactic projections. Second, it has implications for the typological division of languages with respect to how they express quantificational notions. Bach et al (in press) propose that there are two types of quantification in natural languages: D-Quantification and A-Quantification; further, Partee (1987) suggests that D-Quantification is not universal (see Jelinek in press).

This paper investigates the syntax of the quantifier all in three Salish languages. We will show that all has neither the syntax nor the semantics of A-type Quantification. In particular, we propose that the syntax of all is an instance of D-Quantification. The claim that all is a determiner entails that there are "essentially quantificational" noun phrases (Jelinek in press: 1), in the three languages investigated.

1 Note that for Jelinek, a lexical NP such as ce skgnex in (2) is not an argument, but an adjunct binding a pronominal argument marked on the verb (in this case, the null 3rd absolutive).
There is movement (of an empty operator) in a focus construction, as argued in Davis, Gardiner and Mathewson (1993) on the basis of island effects.

There is a contrast between indicative and conjunctive morphology on both transitive and intransitive predicates in St’ Conjunctive morphology is used in subjunctive ('optative') environments (van Eijk 1984:173), and in certain types of subordinate environments. Of particular relevance here is the appearance of conjunctive morphology in relative clauses (5a,b), focus structures (5c), and wh-questions (5d):

5. a. ts'qaw-an'-lhan tu7 na ts'qawaz'-a ta taw-en-ts-4cw-a
   eat-tr-1sg.subj def.past det fish-det det sell-tr-1sg.obj-2sg.conj-det
   'I ate the fish you sold me' (RW 887)

b. t'iq tu7  t'i xwi-s-án-a smém'hat
   arrive def.past det love-caus-1sg.conj-det girl
   'The girl I love arrived' (RW 2102)

c. nilh s-Alice ta at's-x-en-án-a
   foc nom-Alice det see-tr-1sg.conj-det
   'It was Alice I saw' (AA 1831)

d. stam' ku pdzn-acw
   what det meet-2sg.conj
   'What did you meet?' (GN, RW 225)

Focus constructions, relative clauses and wh-questions can all be shown on independent grounds to involve movement in the syntax (see Roberts 1994, Davis, Gardiner and Mathewson 1993). Where conjunctive morphology occurs in a non-extraction environment, it is triggered either by subjunctive semantics, or by an overt marker of conjunctive (for instance the complementizer ih always induces conjunctive morphology). Hence, we use the presence of conjunctive morphology, in the absence of a trigger such ih or of subjunctive semantics, as a diagnostic for movement.

In St’, there are both headless relative clauses, as shown in (6), and headed relatives, as in (7) (relative clauses were also illustrated in (5a,b) above):

6. a. ta tsán-an-a
   det tell-1sg.conj-det
   'the one I told' (van Eijk 1984:187)

b. ti wa7 nsk’w7-an-ts-as
   det prog help-tr-1sg.obj-3sg.conj
   'the one who helps me' (van Eijk 1984:229)

7. a. i at’s-x-en-án-a nk’yap
   see-tr-1sg.conj-det coyote
   'the coyotes I saw' (BF 830)

b. ti wa7 xat’-min-án-a tsitcw
   det prog want-appl-1sg.conj-det house
   'the house I want' (RW 3020)

c. ti xzilm-a tsi'cw
   det big-det house
   'the big house' (the house which is big) (van Eijk 1984:229)

A DP may be combined with a headless relative to create strings such as in (8a). (8b) shows that such combinations can form a constituent, as they can be focussed as a unit:

8. a. ta sqdycw-a ta xwi-s-ás-a
   det man-det det love-cause-3sg.conj-det
   'the man she loves' (the man, the one she loves) (RW, GN 476)

b. nilh [ta sqdycw-a ta at's-x-en-án-a] cüel
   foc det man-det det see-tr-1sg.conj-det run.away
   'It's the man I saw that ran away' (RW, GN 346)

The two-determiner relative, as in (5a) and (8) (which we call r21), is 'head-initial' in the sense that the nominal head precedes the notional predicate. The second type (in (5b) and (7)), termed r22, has a final nominal head without determiners.

Finally, the morpheme -tali, which has been called the topical object marker (Mathewson 1993, Mathewson, Davis and Gardiner 1993; see also Kinkade 1989, 1990, Davis, this volume), is used in this paper as a diagnostic for movement. This morpheme appears on the predicate in St’ only in sentences where ergative extraction has occurred. It is not obligatory in all cases of ergative extraction, however, as its presence is dependent also on discourse factors. Hence, its absence in a particular sentence does not tell us that ergative extraction has not taken place, while its presence unambiguously shows that ergative extraction has taken place. Some examples are given in (9):

9. a. swat ku tsuw'-n-ðlí ti sqdycw-a
   who det kick-tr-TO det man-det
   'Who kicked the man?' (RW, GN 1602)

b. stam’ ku tsuw'-n-às ti sqdycw-a
   what det kick-tr-3sg.conj det man-det
   'What did the man kick? / What kicked the man?' (GN 86)

3 Our claim that the head is a nominal presupposes a distinction between nouns and other predicates (see Kinkade 1983, Jelinek 1987, 1982, 1993, in press, for opposing views). Note that in St’, it is crucially not the case that any two predicates can occur in any order in either relative clause type, as would be predicted by a theory which claims no syntactic distinction between nouns and verbs. Demirdache and Mathewson (in prep) argue that the typology of relative clauses in St’ provides strong evidence for a distinction between lexical categories in the syntax. That issue is not crucial to any of the argumentation in this paper, however.

4 The interpretation of (5b) and other parallel examples in which the ergative argument has been questioned is possible only for some speakers. Other speakers have obligatory -tali when ergative extraction has taken place. See Davis (this volume).
Squamish (Sq)

Squamish sentences are normally predicate initial, as shown in (10a). Unlike in St', though, arguments may occur before the main predicate. As seen in the English translation of (10b), most of these fronted constructions appear to be cases of left dislocation. Sq also uses the focus construction for fronting, as in (10e):

10. a. na huy47 tə shhanay'
    rl leave det woman
    'the woman left'

b. tə shhanay' na huy47
    det woman rl leave
    'the woman, she left'

c. nih tə swiʔ7kə na wa iʔtut
    foc det man rl prog sleeping
    'it's the man that is sleeping'

Sq only allows DPs to be focussed (11a-c). When an oblique case argument is focussed the relative clause is nominalized (either by s- or by Ih-) (11c). A predicate may not be focussed (11d). Only one DP can be focussed (11e). Thus, focussing can also be used as a test for constituency in Sq.

11. a. nih [tə strʔukwi] na huyʔ-s-t-an
    foc det fish rl eat-caus-tr-l
    'it's the fish that I ate'

b. nih [tə sʔixwalh] na ilhən-s tə səkwənəy'
    foc det child rl eat-caus det dog
    'it's the boy that fed the dog'

c. nih [tə həxʔtən] wa n-ilh na həχ'it tə stʔukwi
    foc det knife prog my-nom rl cut-tr det fish
    'that's the knife with which I cut the fish'

d. * nih [huy47] tə stəlɛmɛxw
    foc leave det people
    'it's leaving that the people did'

e. * nih [tə sʔiʔkə] [tə sʔuʔ7shən] na kw'uy-ut
    foc det man det deer rl kill-tr
    'it's the man, the deer, killed'

Squamish has a contrast between main clause subject marking and relative clause subject marking. The main clause subject is marked by an independent clitic, whereas the relative clause contains a type of conjunctive marking:

12. a. chən ch'aw-at tə n-siyəy'
    1 help-tr det my-friend
    'I helped my friend'

b. nih tə n-siyəy' na ch'aw-at-an
    foc det my-friend rl help-tr-1sg.conj
    'it's my friend that I helped'

c. swət kwət na ch'aw-at-ɛxw
    who det rl help-tr-2sg.conj
    'who did you help?'

Only relative clauses have this type of conjunctive marking. Other types of conjunctive clauses have the conjunctive clitics after the first word or clitic in the clause.

A headless relative clause in Sq is shown in (13a), and a headed relative clause in (13b), where the relative clause follows the head. There are also a few cases of relative clauses which come before the head, as shown in (13c).

13. a. tə na kwətɛnɛxw-ɛxw
    det rl see-tr-2sg.conj
    'the one that you saw'

b. tə sxuʔ7shən na kw'uy-ut-an
    det deer rl kill-tr-1sg.conj
    'the deer that I killed'

c. tə na tsəwɛn tə skwtsaʔ7s
    det rl tell-n-3erg island
    'the what he called an island'

1.2.3. Secwepemctsin (Secw)

Secw differs significantly from St' and Sq in allowing multiple elements to precede the predicate and in several details of its predicate morphology.

While both St' and Sq permit elements to occur preceding the predicate, they are somewhat selective. St' only permits clefted constructions with the focus marker nih (although see footnote 2); Sq permits focus constructions and additionally permits left-dislocation. Secw on the other hand allows elements to occur preceding the predicate in a much freer manner. Gardner (1993) argues that there is a (clause) external topic position, a focus position and, further, topics can be adjoined to a clause internal position (i.e. adjoined to IP). These positions have distinct syntactic properties.

In order to illustrate these pre-predicate positions, we first introduce basic wh-questions (14), focus constructions (15) and relativization (16):

14. a. swət7 k-qwetsəts
    who irr-leave
    'Who left?'

b. swət7 k-wik-tɛs re John
    who irr-see-tr-3erg det John
    'Who saw John?/Who did John see?'
Matthewson (1993) and Gardiner (1993) that these constructions are clefts in which syntactic movement takes place.

It is possible to observe elements on either side of the wh-focus position, as shown in (17).

17. \[ \text{re John swet7 re qe7tes-s k-wik-t-s} \]
\[ \text{det-John who det-father-3poss irr-see-tr-3erg} \]
\[ \text{'John, who did his father see?'} \]

Elements to the left of the wh-form swet7, (re John in (17)), are argued in Gardiner (1993) to be external topics; those to the right, immediately preceding the predicate (re qe7teses in (17)), are internal topics. See Gardiner (1993, in press) for the syntactic properties of these positions. As we shall see, quantified expressions may occur in any of these pre-predicate positions.

An important point of comparison of the languages under discussion is the distribution of person marking. While St' is classed with Secw as a member of the Northern Interior Branch of Salish, it patterns more closely with Sq in its person marking system. In St' and Sq, main clauses subjects are clitics, whether intransitive or transitive. In subordinate contexts, subjects are affixes (referred to as conjunctive). Secw on the other hand employs subject clitics of the indicative set only in intransitive main clauses (18):

18. a. \[ \text{m-qwetsés-kn} \]
\[ \text{comp-leave-1subj} \]
\[ \text{'I left.'} \]

b. \[ \text{m-qwetsés-k} \]
\[ \text{comp-leave-2subj} \]
\[ \text{'You left.'} \]

On the other hand, in transitive constructions Secw employs person marker affixes (related to what are termed the conjunctive affixes in St' and Sq).

19. a. \[ \text{mek7 wik-t-s-en} \]
\[ \text{exp see-tr-2objj-1subj} \]
\[ \text{'I'll see you.'} \]

b. \[ \text{kuk-st-st(3s)m-c} \]
\[ \text{save-caus-1objj-2subj} \]
\[ \text{'Thank you.' (lit: 'You saved me.')} \]

A second set of clitics (referred to as conjunctive in Secw) mark subordinate contexts (20):

20. a. \[ \text{t'he7en k t'7ek uc} \]
\[ \text{where irr go 2conj} \]
\[ \text{'Where are you going?'} \]

b. \[ \text{t'he7en k t'7ek wes} \]
\[ \text{where irr go 3conj} \]
\[ \text{'Where is he going?'} \]
Subordinate transitive constructions (20c-d) take regular transitive affixes but are followed by the third person conjunctive clitic. This system of marking subordination is in complementary distribution with nominalization constructions, depending on the argumental status of the nominal being questioned or focussed.

21. a. stɛm'i k 7-s-wək-em
   what 2poss-nom-see-mid
   'What did you see?'

b. stɛm'i k s-wək-em-s
   what nom-see-mid-3poss
   'What did he see?'

c. stɛm'i k s-kec-t-ɛc
   what nom-give-tr-2subj
   'What did you give him?'

d. stɛm'i k s-kec-t-s-s
   what nom-give-tr-2obj-3erg
   'What did he give you?'

In nominalizations, intransitive constructions take members of the possessive pronominal set; transitives take regular transitive affixes. In addition the predicate takes a s-prefix.

While nominalizations and the use of conjunctive clitics are used as diagnostics for non-direct arguments, there are other environments where they occur. Nominalizations occur in negative constructions (22) and in adverbial expressions (23).

22. a. uʔ7 k s-wəwe̓t̓əs-s
    neg what nom-leave-3poss
    'He didn't leave.'

b. uʔ7 k s-wək-t-s-s
    neg what nom-see-tr-2obj-3erg
    'He didn't see you.'

23. a. takəm i̓s s-wəwe̓t̓əs-s
    always det nom-leave-3poss
    'He's always leaving.'

b. yerʔ7 re s-wəwe̓t̓əs-s
    now det nom-leave-3poss
    'He's leaving now.'

Conjunctive clitics commonly are used in progressive constructions (24), and in other subordinate contexts such as temporal adjuncts (25a) and hypothetical constructions (25b):

24. a. wʔex re pfx-em es
    exist det hunt-mid 3conj
    'He is hunting.'

b. wʔex re ts-nək'k-s-t-st es re spəs'en
    exist det hab-cut-caus-3erg 3conj det rope
    'He is cutting the rope.'

25. a. tse-lx-em-st-ɛ(t)en
    1gwət̓εs es
    det know-mid-caus-1 subj det leave 3conj
    'I know when he left.'

b. meʔ kəc-t-s-s tə spəqəʔ e qəwənən uc
    exp give-tr-2obj-1 subj det berries conj like 2conj
    'I'll give you some berries if you want.'

2. 'All' is not a main predicate

Jelinek claims that all in Straits Salish is a second-order predicate, which quantifies over a subordinate clause. She shows that unlike the weak quantifiers such as many, all cannot be the main predicate of a sentence. We also find in St' that təkəm cannot occur with an argument to form a full sentence. In this it differs from all main predicates, including weak quantifiers, as shown in (26) and (27):

26. a. təkəm i sqəycə-w-a
    all pl.det man-det
    'all the men' (only interpretation; not a full sentence) (AA 1553)

b. təkəm i ts'ʔ7-a
    all pl.det deer-det
    'not a full sentence' (RW, GN 1768)

c. təkəm i qwətsə̓k-sə̓ məł̓ hə̓ s
    all pl.det leave-det woman
    'all the women that are leaving' 'not a full sentence' (RW, GN 1771)

27. a. cwʔ7it i ts'ʔ7-a
    many pl.det deer-det
    'There are lots of deer' (RW, GN 1769)

b. xəzum ti n-s-kwəm-a
    big det 1sg.poss-nom-take-det
    I caught a big one' (The one I caught was big) (AA 2816)

(28) shows that even when the context provides a set of items over which təkəm could quantify, it is impossible to use təkəm as a main predicate:
Finally, **tākem**, unlike the weak quantifiers, cannot take 1st or 2nd person subject clitics to form a full sentence, as shown in (29):

29. a. tākem-lhkaJh  
   all-1pl.subj  
   'all of us'  
   (not a full sentence)  
   (LT 2752)

   b. cw7it-kalh  
   many-1pl.subj  
   'There's a lot of us'  
   (LT 2753)

In addition to the above evidence for tākem's non-main-predicate status, there are many more subtle differences in syntactic behavior between tākem and main predicates of the language. Following sections will contain examples of constructions where tākem is possible, but main predicates, including the weak quantifiers, are impossible, pointing again to the different syntactic status of tākem.

The same results hold in Sq and Secw, as shown in (30)-(33):

30. a. i7gw ta swi7ka  
   all det man  
   'all the men'  
   (Sq)

   b. i7gw ta swi7shen  
   all det deer  
   'all the deer'  
   (Sq)

31. a. kəx ta səswi7shen  
   many det deer  
   'There are many deer'  
   (Sq)

   b. na huy7 Iha shhänay'  
   leave det woman  
   'The woman left'  
   (Sq)

32. a. xwexweyt re səqlemc  
   all det man  
   'all the men'  
   (Secw)

   b. xwexweyt re ts'i7  
   all det deer  
   'all the deer'  
   (Secw)

33. a. cw7it re ts'i7  
   many det deer  
   'There are many deer'  
   (Secw)

   b. qwetsats re nuxwenxw  
   all det woman  
   'The woman left'  
   (Secw)

3. 'All' is not a second-order predicate
3.1. Syntactic evidence

We have shown in the previous section that all is not a main predicate. Under Jelinek's assumption that there are only inflected predicates and DPs in Salish languages, the only other option for the categorial status of all would be a second-order predicate. That is, it would be either an auxiliary or an adverb. Our claim is that all is neither a main predicate nor a second-order predicate, but a Determiner-Quantifier.

Auxiliaries in St can express aspectual notions (e.g. the progressive auxiliary wa7), or can be verbs of motion (e.g. nas 'go', tsew 'come'). These items are immediately followed by first order predicates, with no marking of subordination. The auxiliaries are strictly confined to this position; they may not 'wander around' the clause. (34)-(37) contrast the environments in which tākem and the auxiliary wa7 can appear:

34. a. tākem qwatsats i stsmál't-s-a  
   all leave pl.det child-3sg.poss-det  
   'All his children left'  
   (GN, RW 405)

   b. wa7 guy't ta sqəcyw-a  
   prog. sleep det man-det  
   'The man is sleeping'  
   (BF, GN, RW 2)

35. a. qwatsats  tsi7 tākem i sk'wemnk'uk'wm'it-a  
   leave def.past all pl.det children-det  
   'All the children left'  
   (BF, GN, RW 573)

   b. ?? qwatsats wa7 i sk'wemnk'uk'wm'it-a  
   leave prog pl.det children-det  
   'The children are leaving'  
   (RW, ON 1732)

36. a. ? qwatsats i smelh-mulhats-a tākem  
   leave pl.det women-redup-det all  
   'The children are leaving'  
   (RW, GN 1732)

   b. * qwatsats i sk'wemnk'uk'wm'it-a wa7  
   leave pl.det children-det prog  
   'The children are leaving'  
   (LT 2583)

37. a. tākem i tseiw-a tseqwitsqw  
   all pl.det house-det red  
   'All the houses are red', * 'The houses are completely red'  
   (BF, RW 1876)

   b. * wa7 i smulhatsa qwatsats  
   prog pl.det woman-det leave  
   'The women are leaving'  
   (RW, GN 1721)

As we see, we have a systematic contrast in grammersicality when we substitute an auxiliary for tākem. The contrast between (35a,b) and (37a,b) shows that wa7 is ungrammatical in two syntactic positions in which tākem is fully acceptable. Hence, although tākem superficially behaves similarly to an auxiliary in (34), the obvious conclusion (and the null hypothesis) is that we are dealing with members of two different syntactic categories.
In Sq, which also has the progressive auxiliary wa, we obtain the same results.

38. a. na i7kw inta si7ka
   rl all sleep det man
   'All the men are sleeping'  (Sq)

b. na wa inta si7ka
   rl prog sleep det man
   'The man is sleeping'  (Sq)

39. a. na ilhen i7kw inta sta7uxwel
   rl eat all det children
   'All the children are eating'  (Sq)

b. * na ilhen wa inta sta7uxwel
   rl eat prog det children
   'The children are eating'  (Sq)

40. a. * na ilhen inta sta7uxwel i7kw
   rl eat det children all
   'All the children are eating'  (Sq)

b. * na ilhen wa inta sta7uxwel
   rl eat det children prog
   'The children are eating'  (Sq)

41. i7kw inta si7ka na ilhen
   all det man rl sleep
   'All the men are sleeping'  (Sq)

b. * wa inta si7ka int
   rl prog det man sleep
   'The man is sleeping'  (Sq)

Secw lacks auxiliaries; progressive aspect is expressed as a bi-clausal structure, with w7ex 'exist' functioning as a predicate:

42. a. wexwéyt re ic wes re sqélémc
   all det sleep 3conj det man
   'All the men are sleeping.'  (Secw)

b. wexwéyt re ilhen es re stsmémelt
   all det eat 3conj det children
   'All the children are eating.'  (Secw)

43. a. w7ex re ic wes re sqélémc
   exist det sleep 3conj det man
   'The man is sleeping.'  (Secw)

b. w7ex re ilhen es re stsmémelt
   exist det eat 3conj det children
   'The children are eating.'  (Secw)

These data show that tákem and the adverb papt do not have the same syntactic distribution.

Jelinek gives as an example of a second-order predicate the word for 'always'). Papt typically appears in clause-initial position, and takes subject clitics; subordinate marking is not present on the main predicate:5

44. a. pdé-lhkan wa7 píx-em
   always-1sg.subj prog hunt-intr
   'I went hunting many times'  (RW, GN 2535)

b. pdé-lhka6w at'sx-en-túmuh
   always-2sg.subj see-tr-1pl.obj
   'You always see us'  (RW, GN 1757)

Papt, unlike the aspectual and motion-verb auxiliaries, has some freedom as to where it can appear in the sentence. However, there are clearly environments where papt cannot appear and tákem can, or vice versa. Compare the (a) and (b) examples in (45) through (47):

45. a. ? qwawts i smél-muíhats-a tákem
   leave pl.det women-redup-det all
   'The children are leaving'  (RW, GN 843)

b. * t'em i smél-hats-a papt
   sing pl.det woman-det always
   'The women always sing'  (RW, GN 1746)

46. a. at'sx-en-as tákem
   see-tr-3erg all
   'He saw everything'  (RW, GN 2522)

b. * at'sx-en-lhkan papt
   see-tr-1sg.subj always
   'I always see him/her'  (LT 2585)

47. a. qwawts na7 tákem i sk'wemk'uk'wm'it-a
   leave def.past all pl.det children-det
   'All the children left'  (BF, RW 573)

c. * qwawts papt i syqts7-a
   leave always pl.det woman-det
   'The women always leave'  (LT 2587)

These data show that tákem and the adverb papt do not have the same syntactic distribution.

In Sq the adverb lhíkw 'always' does not have the same distribution as i7kw 'all'. Although in a range of positions the two items act in a parallel fashion, as shown in (48)-(51), notice that 'always', unlike 'all', cannot occur immediately after the main predicate, as in (50b); nor in sentence-initial position, immediately followed by an NP, as shown in (52):

48. a. i7kw na ilhen inta sta7uxwel
   all rl eat det children
   'All the children are eating'  (Sq)

5 One of our speakers requires subordinate marking with papt; for this speaker, papt acts as a first-order predicate.
In section 5, we argue that (52a) involves fronting of all the men, as a single constituent. (52b) shows that always the men cannot be analysed as a single constituent fronted to the left of the predicate, on a par with (52a). Thus, 'always' and 'all' are syntactically differentiated in Sq, as in St'.

Adverbials in Secw occur as main predicates in bi-clausal structures. The dependent clause is nominalized, as in (53):

53. a. kemtis re s-illen-s always det nom-eat-3poss 'He's always eating.' (Secw)
b. cw7it l m-s-qwetses-s re sszmelmelt many det compl-nom-leave-3poss det children 'The children often leave.' (Secw)

Notice however that (53) contrasts with (54) in two respects: they have different readings (adverbial vs. non-adverbial) and a different syntax (presence vs. absence of nominalisation).

Further evidence that all does not behave like an adverb comes from person marking. The St' adverb papt, as noted above, always takes 1st and 2nd person subject clitics when it occurs in clause-initial position. Jelinek predicts that the same will be true of tâkem, and in particular that a sentence such as (55) should be possible, parallel to (44b) above (similar examples are, indeed, possible in Straits; Jelinek in press:21):

55. * tâkem-lhakcw at's'en-tümlulh all-2sg.subj see-tr-1pl.obj 'You (sing.) saw all of us' (RW, GN 1754)

If tâkem behaved like papt, there would be no reason why (55) would be ungrammatical. However, while papt bears no semantic relation to the subject clitic which attaches to it (papt-Ihkacw does not mean 'always you'); tâkem is construed as distributing over the pronominal which attaches to it and defines its range (see section 6.1), hence the impossibility of a singular pronominal attaching to tâkem. Exactly the same is true of Sq, as illustrated in (56):

56. a. * lhik' chexw ch'awat-umulh often you help-us 'you helped us often' (Sq)
b. * I7kw l chexw ch'awat-umulh all you help-us 'you saw all of us' (Sq)

3.2. Semantic evidence

Not only does all not have the syntactic distribution of an adverb, as shown in the previous section, but it does not have the construal of an adverbial quantifier. The first piece of evidence for this comes from negation. Consider (57):

57. a. All the kids didn't leave
b. The kids all left

In (57a) we have the determiner all; in (57b) we have the adverb all. These sentences are truth-conditionally equivalent. However, under negation, they are not equivalent:

58. a. All the kids didn't leave
   It is not the case that for ∀x (x a kid) (x left)
   b. ∀x (kid (x)) (x didn't leave)
59. The kids didn't all leave
   a. It is not the case that for xs (x a kid) (x left)
   b. (reading as in (6b) impossible)

Thus, the scope of negation allows us to disambiguate the adverbial reading from the determiner reading: in (58b), all attaches to a subject noun phrase and can, thus, have wider scope than the negation. In (58a) and (59), it modifies the VP forming a second-order predicate. Where all is an adverbial, the sentence is unambiguous and cannot have the reading where none of the kids left.

In all three languages, we have evidence for a non-adverbial reading of all. In (60a) from St', the preferred reading for some speakers is one where 'all the women' has higher scope than negation. This is crucially not the adverbial reading. Rather, 'all the women' forms a single constituent, which is negated. This contrasts with (60b), where we have the adverbial reading:

60. a. cw7aoz kw-s q'weláw'-em tākem i smelh-múḷhats-a neg det-nom pick.berries-intr all pl.det woman-redup-det 'None of the women picked berries' (RW 2960)
   b. cw7aoz kw-s tākem i smelh-múḷhats-a q'weláw'-em neg det-nom all pl.det woman-redup-det pick.berries-intr 'Not all of the women picked berries'. (RW, GN 2958)

There is also a contrast in Secw between an adverbial and non-adverbial reading of xwexwéyt; when xwexwéyt is within the scope of negation it gets an adverbial reading, as in (61).

61. a. ta7 k s-qwetsés-s xwexwéyt re smetmelt neg irr nom-leave-3poss all det children 'Not all the children left.' (some stayed) (Secw)
   b. ta7 k s-xwexwéyt re smetmelt k s-qwetsés-s neg det nom-all-3poss det children irr nom-leave-3poss 'Not all the children left' (some stayed) (Secw)

However, when xwexwéyt is outside of the scope of negation it receives a non-adverbial reading, as in (61c).

61. c. xwexwéyt re smetmelt ta7 k s-qwetsés-s all det children neg irr nom-leave-3poss 'All the children didn't leave' (Secw)

Similarly, in Sq, the non-adverbial reading of iʔ́aw is possible, as shown in (63):

62. iʔ́aw a st7ux with haw k-as ya huyl7 all det children not irr-3conj asp leave 'All the children didn't leave (all of them stayed)' (Sq)

(60), (61c) and (62) are parallel to the English sentence in (58), where we have determiner quantification; the quantifier and the NP form a DP.

3.2.1. Unselective binding

The core property of adverbs of quantification is that they are unselective: more then one indefinite in a sentence can receive the quantificational force of a single adverb of quantification. This is illustrated by the Japanese sentence in (63a), quoted from Nishigauchi (1986: 161).

63.a. Dāge ga doko-de nani-o kaw-te-mō, boku-wa kamawa-nai

   'For all, x, y, z, x a person, y a thing, z a place, I don't care if x buys y at z.'

Nishigauchi argues that the quantificational element mo in Japanese is an unselective binder because the quantificational force of the three (underlined) wh-adjectives in phrases in (63a) "...is determined uniformly by the single-Q element mo which occurs in Comp of their clause, in such a way that all of them function as (part of) universal quantification." Nishigauchi (1986: 162).

St' also has wh-indefinites (swat, stam') that combine with tākem to yield meanings such as everyone/everything, as seen in (63b). (63c), however, shows that tākem is clearly not an unselective binder.

63.b. tākem swat at'sx-en-tahl all who see-tr-TO pl.det nom-child-redup-det

   'Everyone saw the children' (GN, RW 2045)

63.c. *tākem swat at'sx-en-tahl ku stam all who see-tr-TO det what

   'For all, x, y, x a person, y a thing, x saw y' (GN, RW 2047)

If we compare the Japanese sentence in (63a) with the ungrammatical St' sentence in (63c), we see that tākem does not have the semantics of an adverb of quantification: unlike mo, it cannot determine the quantificational force of more than one wh-indefinite noun phrase. Indeed, it is a determiner-quantifier: it associates with a single noun phrase, as in the grammatical (63b).

We have seen in this section that all has neither the syntax of a second-order predicate (auxiliary or adverb), nor the semantics of an adverb of quantification. The next section shows that all must crucially form part of DP.

4. 'All' + DP form a single syntactic constituent

A common environment in which tākem appears in St' is shown in (64); it attaches directly to the left of an argument NP, preceding the determiner. The NP may itself contain a relative clause, as in (65):

64. qwatsats ta7 tākem i sk'wemk'ik'wm-it-a leave def.past all pl.det children-det

   'All the children left' (BF, RW 0573)
Main predicates (including cardinal quantifiers) cannot replace tākem in this position, as shown in (66):

66. a. qwatsats xzum i sk'wemk'uk'wm'i-a
   leave big pl.det children-det
   'The big children are leaving' (RW, ON)
   (RW, ON, 1763)

   b. qwatsats cw7it i smulhtas-a
   leave many pl.det woman-det
   'Many women left' (RW, GN)

The same construction is found in both Secw and Sq, as shown in (67-68):

67. a. na huya7 i7~w ta swi7ka
   leave all det man
   'All the men left' (Sq)

   b. * na huya7 hiyf ta swi7ka
      leave big det man
      'The big man left' (Sq)

   c. * na huya7 kex ta swi7ka
      leave many det man
      'Many men left' (Sq)

68. a. qwetsets xwexwéyt re sğelmc
   leave all det man
   'All the men left' (Secw)

   b. * qwetsets xyum re sğelmc
      leave big det man
      'The big man left' (Secw)

   c. * qwetsets cw7it re sğelmc
      leave many det man
      'Many men left' (Secw)

There is evidence that in the constructions in (64), (65) (67a) and (68a), all and its range form a single constituent (as proposed in Mathewson 1994 for St). Note that this is precisely what Jelinek (in press) predicts to be impossible; a quantificational element which is syntactically associated to a noun phrase is D-type quantification.

The first piece of evidence that [all DP] forms a constituent is determiner behavior in St'. There is only one determiner present; determiners on each element cause ungrammaticality, as shown in (69):

69. a. psác-em i smelh-mulhats-a i tākem-a
    gather-intr pl.det all-det pl.det man-det
    'All the women gathered firewood' (RW 2684)

   b. * psác-em i tākem-a i smelh-mulhats-a
      gather-intr pl.det all-det pl.det woman-redup-det
      'All the women gathered firewood' (RW 2685)

   c. * qvl-qvl-ts-mín-lhkan i tākem-a i sqaycw-a i
      bad-redup-mouth-appl-1sg.subj all det det man-det pl.det
      see-tr-1sg.conj-det
      'I swear at all the men I see' (LT 2626)

   d. * qwatsats i tākem-a i sqaycw-a i
      leave all-det all-det pl.det woman-det
      'All the women left' (LT 2622)

The ungrammaticality of (69) does not result from an incompatibility between tākem and a determiner; as will be shown below, i takema can stand alone as an argument of the main predicate. The relevance of (69) is that phrases with determiners behave like constituents in St'; they can be moved (scrambled) within the clause, they display internal cohesion, and they are able to co-ordinate with other DPs. Hence, if two determiners were possible in (69), we would have potential evidence for two independent constituents.

Likewise, in Secw, the distribution of determiners provides evidence for analyzing all plus DP as a single DP.

70. qwetsets xwexwéyt re sğelmc
   leave all det man
   'All the men left' (Secw)

   b. * psác-em i tākem-a i smelh-mulhats-a
      gather-intr pl.det all-det pl.det woman-redup-det
      'All the women gathered firewood' (RW 2684)

   c. * qvl-qvl-ts-mín-lhkan i tākem-a i sqaycw-a i
      bad-redup-mouth-appl-1sg.subj all det det man-det pl.det
      see-tr-1sg.conj-det
      'I swear at all the men I see' (LT 2626)

   d. * qwatsats i tākem-a i sqaycw-a i
      leave all-det all-det pl.det woman-det
      'All the women left' (LT 2622)

The impossibility of two non-oblique determiners argues against a two-DP analysis of the string in question.

Another piece of evidence for the constituency of [all DP] is the impossibility of inserting another DP in between all and its range, as shown in the St' example in (71):

71. ats'x-en-ft-as tākem ta sk'uk'wmi7-t-a i smulhats-a
    see-tr-3pl-3erg all det child-det pl.det woman-det
    'The women saw the whole child' (RW 890)

6 This sentence has been accepted by one of our consultants.
7 In Sq, sentences parallel to (69) are also impossible; however, since there can be no DPs of the form [det I7gw] anyway, the examples are less relevant.
8 Notice that (69a) also shows that tākem cannot form the clausal part of a relative clause. This fits in with the fact that it cannot be a main predicate; see section 2 above.
9 There are rare apparent instances of double determiners in Secw:
   i. tgelq'wel't i xwexwéyt i spcupq
      ripe det all det berries
      'All the berries are ripe.' (Secw)

Mona Jules offered the above construction in a context where huckleberries were being discussed. There is a possibility that the second NP is right-dislocated in (i).
In spite of the fact that it is dispreferred for tākem to attach to a singular DP, with the meaning 'the whole X', this is the only reading possible in (71). It is not possible for tākem to quantify over i smūlhat's-a, because it is separated from it by another argument, namely ta sk'tuk'wmi7t-a.

In Sq, as in St', all may not be separated from its range by another argument. Unlike in St', the determiner ta is ambiguous between singular and plural, as shown in (72) where all cannot quantify over ta silhenlahanay.

72. na ch'aw-at-as i7gwa7 siwi7'ma ta silhenlahanay' rl help-tr-3erg all det men det women 'All the men helped the women.' (Sq)

Secw likewise associates xwexwéyt only with the argument that it is adjacent to.

73. wikt's xwexwéyt re stumérnta re nuxwenwx see-tr-3erg all det children det woman 'The woman saw all the children.' All the women saw the children.' (Secw)

Co-ordination tests also show that [all DP] behaves equivalently to other DPs, since the two constituents of a conjunct must have the same syntactic identity. (74) shows that [tākem DP] can be conjoined with a DP:

74. a. ák's-en-lhkan i smūlhat's-a múta7 tākem i kwadánts-i-ša see-tr-lsg-subj pl.det woman-det and all pl.det husbands-3pl.po-det 'I saw the women and all their husbands' (RW, GN 1719)

b. w47-lhkan qvl-qvl-ts mín' tākem i smūlhat's-a prog-lsg-subj bad-redup-mouth-appl all pl.det woman-redup-det múta7 i sāq'icw-a wa7 at's-en-án and pl.det man-det prog see-tr-lsg.conj 'I swear at all the women and the men I see' (RW, GN, LT 1730)10

c. w47-lhkan qvl-qvl'smin' tākem i sāq'icw-a múta7 prog-lsg-subj bad-redup-mouth-appl all pl.det woman-det and il kūkwsí7-a det chief-det 'I swear at all the women plus the chief' (LT 17-6-94)

(75) shows the same for Secw:

75. i nuxwmíxwenxw ell xwexwéyt l sāq'icwsmc m-sxup det women conj all det men compl-left 'The women and all the men left' (Secw)

In Secw, evidence for constituency comes from focus constructions, which only permit a single constituent to be focussed.

76. xwexwéyt re stumérnta ri7 re qwe'l'ts all det children foc det leave 'It's all the children left.' (Secw)

Semantic evidence for the constituency of [tākem DP] comes from the negation facts discussed above. Recall that [all DP] could be negated as a constituent for some speakers in St', and in Secw and Sq:

77. a. cw7a7oz kw-s qwe'l't-em tākem i smūlhat's-a neg det-nom pick.berries-intr all pl.det woman-redup-det 'None of the women picked berries' (RW 2960)

b. xwexwéyt re stumérnta ta7 k s-qwe'l't-s all det children neg irr nom-leave-3poss 'All the children didn't leave.' (Secw)

c. i7gwa7 ta sta7UXWH haw k-as ya huy47 all det children not irr-3conj asp leave 'All the children didn't leave (all of them stayed)' (Sq)

To summarize, we have strong evidence that all combines with a DP in each of the three languages, to create a constituent which functions as the argument of a sentence. This behavior is not only unique to all,11 it is an example of a quantifier syntactically attaching to a nominal, contrary to Jelinek's claims for Straits Salish. We have syntactic evidence for D-Quantification in St', Secw and Sq.

4.1. The syntactic status of [Det all Pred]

We have argued that [all DP] is a single constituent. There is, however, an alternative construction in St' and Sq: [det all NP]. Again, we show that this string forms a single DP; it can neither be analyzed as a rel1 (i.e. as a sequence of two DPs), nor as a rel2 (that is, as [dp det [pl x is all] NP]).

In the St' sentence in (78a), the argument (DP) contains two lexical roots (xźūm, spźūzā7). This is a relative clause structure (a rel2, as discussed in section 1.2.1.); the first element can have a propositional meaning, as in (78b-c).

78. a. saq'w ta xźūm-a spźūzā7 fly det big-det bird 'The big bird flew' (GN, RW 335)

b. ta at's-en-án-a sqaycw det see-tr-lsg.conj-det man 'the man I saw' (St')

c. ta wa7 xat̕-mín-án-a tsatcw det prog want-appl-lsg.conj-det house 'the house I want' (RW 3020)

10 (74b) is ambiguous, just as in English, between the two readings in (i):
   a. ... [all the women] and [the men] I see
   b. ... [all the women and the men] I see

11 In St', we predict that zil7seg', the distributive quantifier 'each', will belong to the same category as tākem. Initial results support this prediction, but more research is required.

12 The enclitic portion of the determiner (-a) phonologically attaches to the first lexical item in the noun phrase.
We assume that a rel2 has the following structure: \[DP \rightarrow \text{Det} [\text{op} \rightarrow \text{Pred} \rightarrow \text{NP}]\] (79). (79) shows that \(täkem\) can occur as the first member of an apparent rel2 structure:

79. qwatsats i \(täkem\)-a smühlats
leave pl.det all-det woman
'All the women left'

(GN, RW 840)

Note that this structure is dispreferred; \(täkem\) i smühlats-a is the usual way to express all the women.

This is shown in (80), where (80b) is the volunteered correction of (80a):

80. a. \(?	äkem\) t'u7 i \(täkem\)-a syaqta7
lazzy pl.det all-det woman
'All the women are lazy'

LT: 'doesn't sound very great; you could say it'

(LT 2631)

b. \(täkem\) t'u7 i syaqta7-a \(?	äkem\)
all part pl.det woman-det lazy
'All the women are lazy'

(LT 2631)\(^{14}\)

Thus, we could analyze the [i \(täkem\)-a NP] constituent as a rel2, where \(täkem\) is parallel to the inflected predicate found in the first position of other rel2s. However, this analysis is untenable. Recall that \(täkem\) cannot function as the main predicate of a sentence (i.e. \(täkem\) cannot be analyzed as \(täkem\)-3abs, or 'x is all'). This entails that unlike ordinary main predicates and cardinal quantifiers, \(täkem\) cannot function as the clausal part of a relative clause.

Further evidence for this claim is provided by the other type of relative clause (rel2). This entails that unlike ordinary main predicates and cardinal quantifiers, \(täkem\) cannot function as the clausal part of a relative clause.

In the preceding section, we discussed constructions in which all and its range appear in argument position. In addition, all can also appear in sentence-initial position in all three languages. In Sq, the entire [i \(täkem\) DP] complex can be fronted, as in (85), or \(täkem\) may be immediately followed by the main predicate, as in (86):

85. a. \(?\text{tiqwelq'wel'\i} \text{I xwexw\text{e}yt} \text{I speqpeq}
ripe det all det berries
'All the berries are ripe.'

(Secw)

b. \(\text{*t\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{'}}}}}}}}}}}}}} \text{m} \text{ik-t-s} \text{l xwexw\text{e}yt} \text{te stsm\text{e}m\text{e}lt}
what obli det all children
'What did all the children see?'

(Secw)

c. \(\text{*t\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{'}}}}}}}}}}}}}} \text{m} \text{ik-t-s} \text{l xwexw\text{e}yt} \text{stsm\text{e}m\text{e}lt}
what obli det all children
'What did all the children see?'

(Secw)

(See footnote 9 regarding the status of (84a)).

5. Extraction of 'all'

In the preceding section, we discussed constructions in which all and its range appear in argument position. In addition, all can also appear in sentence-initial position in all three languages. In Sq, the entire [i \(täkem\) NP] structures cannot be relative clauses. See section 6 for the structure we propose for [i \(täkem\) NP]. We also discuss in that section the slightly different interpretations of the [det all NP] constructions vs. the [all det NP] ones, and how those follow from the different structures proposed.

\(^{13}\) See Demirdache and Matthewson (in prep.) for an analysis of rel2.

\(^{14}\) The particle t'u7 in (80b) is a second-position clitic whose position tells us nothing about constituency.

\[\text{Eq. 16}\]...
d. [tákem i ts'ecw-a] tséqwtstícw
   all pl.det house-det red
   'All the houses are red'; * 'The houses are completely red' (BF, RW 1876)

86. a. tákem qwasát's i stsmál't-s-a
    all leave pl.det child-3sg.poss-det
    'All his children left.' (GN, RW 405)

b. tákem swi-s-twít-as i snek'w-nuk'w7-i-ha
   all love-caus-3pl-3erg pl.det friend-redup-3pl.p-DET
   i sk'wem-kuk'w7-i-ha
   all pl.det child-redup-det
   'The children loved all their friends'; 'All the children loved their friends'
   (RW, GN 1779)

c. tákem at'sx-en-talt-i-as i sqáycw-a
   all see-tr-lsg.obj-3pl-3erg pl.del man-del
   'All the men saw me' (LT2602)

d. tákem at'sx-en-tumul-ft-as i sqáycw-a
   all see-tr-I pl.obj- 3pl- 3erg pl.det rnan-del
   'All the men saw us' (LT 2603)

However, fronting of i tákema is bad, as shown in (87):

87. a. i tákem-a qan'im-ens-tali i li
    all det a11-det hear-tr- TO del chief -del
    'Everyone heard the chief' (RW 23-6-94)

b. i tákem-a sqáycw qan'im-ens-uili i li
    all det aU-det man hear-tr-TO del chief-del
    'All the men heard the chief (RW 23-6-94)

See section 7 for explanation of why (87) and (90) below are impossible.

In Sq., [all DP] fronting is also possible (indeed, is the most common pattern in elicited sentences):

88. a. [i7gw ta skwélam] na huy'-s-t-as ta sta'uxwih
    all det berries rI eat-caus-tr-3erg det children
    'The children are all the berries' (Sq)

b. [i7gw ta swí7ka] na ch'aw-at-as
    all det man rI help-tr-3erg
    'He helped all the men' (Sq)

Fronting just of i7gw is also possible, as shown in (89):

89. a. i7gw na huy'-s-t-an ta sta'uxwih
    all rI leave det children
    'All the children left' (Sq)

b. i7gw na huy'-s-t-an ta sta'uxwih
    all rI eat-caus-tr-1sg.conj det fish
    'I ate all the fish' (Sq)

Finally, just as in St', fronting of a determiner-initial NP containing all is ungrammatical:

90. * ta men i7gw swí7ka na huy'-s-t-an
    all det just all man rI leave
    'All the men left' (Sq)

Secw also permits fronting of either xwexwéyt by itself or with the DP that it is associated with.

91. a. [xwexwéyt re sqáycw-a] m-qwétsés
    all det man compl-leave
    'All the men left' (Secw)

b. [xwexwéyt re sqáycw-a] m-qwétsés
    all det man compl-leave
    'He ate all the berries' (Secw)

92. a. xwexwéyt m-qwétsés
    all compl-leave det man
    'All the men left' (Secw)

b. xwexwéyt m-qwétsés
    all compl-leave det man
    'He ate all the berries' (Secw)

We show now that the structures in (85-86) and (88-92) are not base-generated structures; they involve movement of all (with or without its range) to a sentence-initial position.

In St', evidence for movement comes from ergative extraction morphology (-tali) (see section 1.2.1.). (43) shows that -tali is possible when [tákem DP] is sentence-initial and corresponds to the ergative argument:

93. a. T'ak tu7 káti7 i nk'yáp-a. [Tákem i sqáycw-a] at'sx-en-tali.
    go def.past deic det coyote-det all pl.det man-redup see-tr-TO
    'The coyote was going along and all the men saw him' (RW 2882)

b. [tákem i stsmál't-s-a] at'sx-en-tali
    all pl.det children-3sg.poss-det see-tr-TO
    'All her children saw somebody' (LT 17-6-94)

The example in (94) shows [tákem NP] inducing -tali marking in a subordinate clause:

94. tsít-kacw kw-i, tákem i syaqts7-a at'sx-en-tali kw-s Mary
    say-2sg.su det-nom all pl.det woman-det see-tr-TO
eat-3erg det-nom Mary
    'You said that all the women saw Mary' (LT 2628)

There appears to be an alternative analysis of (94) which does not entail extraction of [tákem i syaqts7a]. Given that [i syaqts7a at'sx'en-tali kws Mary] is a legitimate relative clause ('the women who saw Mary'), the subordinate clause in (94) could be construed as having tákem as its main predicate, with [i syaqts7a at'sx'en-tali kws Mary] as the subject of this predicate ('the women who saw Mary were all'). That such a structure is possible is shown in (95), where tákem has been replaced by an ordinary main predicate:
98. a. xwexweyt re swewll ri7 re nuxwexnxw det-nom-foc det-women-det see-tr-top-ob det-nom Mary You said that the big women saw M’ (You said the women who saw M were big) (QM, RW 1733)

However, as shown in section 2, strong quantifiers like tākem cannot be main predicates in St’, as also argued by Jelinek for Straits. Hence, the analysis of (94) as parallel to (95) is unavailable. In the subordinate clause in (94), the only possible main predicate is atx’enxtail, and given this fact, simple word order shows us that tākem i syahts’7a has been fronted to pre-predicate position. Notice that this
fronting is further evidence for the constituency of [tākem DP] in St’. See section 7 for an analysis of all in pre-predicate position.

A second piece of evidence for extraction, rather than base-generation, in the tākem initial sentences comes from the obligatory presence of conjunctive morphology on the main predicate in such sentences:

96. a. tākem i cwk’t-en-a kulhen-mfn-an all pl.det butcher-instr-det borrow-appl-1sg.conj ‘I borrowed all the knives’ (RW 2115)
b. * tākem i cwk’t-en-a kulhen-mfn-Ibkan all pl.det butcher-instr-det borrow-appl-1sg.subj ‘I borrowed all the knives’ (RW 2115)

Recall from section 1.2.1. that conjunctive morphology is a diagnostic for movement in the absence of subjunctive semantics or of overt markings of a conjunctive environment.

In Sq, conjunctive morphology, of the type which indicates a relative clause, is also obligatorily present in sentences where i7xw is fronted with its range, as shown in (97):

97. a. i7xw ta skwelam na huy’-s-t-an all det berries I eat-caus-tr-1sg.conj ‘I ate all the berries’ (Sq)
b. * i7xw ta skwelam chen huy’-s all det berries I eat-caus ‘I ate all the berries’ (Sq)

Secw also has evidence of extraction. In particular, in (98) the notional predicate is marked with a
determiner, and with non-direct arguments takes either nominalization (98a) or conjunctive morphology
(98b):

98. a. xwexweyt re swewll ri7 re m-s-kec-t-t(4)in all det fish det-comp-nom give-tr-1subj det women ‘It’s all the fish that I gave the women.’ (Secw)
b. xwexweyt re sqelqelm c wk’t-m all det men es det-nom-foc det-see-tr-pass 3conj det-women ‘It’s all the men that the woman was seen by.’ (Secw)

Thus far we have shown that extraction takes place in the syntax in the cases where [all DP] occurs in pre-predicate position. Now let us investigate the bare all-fronting cases.

Conjunctive morphology is obligatory in St’ with bare tākem extraction, as with [tākem DP] extraction:15

99. a. * tākem kulhen-mfn-Ibkan i cwk’t-en-a all borrow-appl-1sg.subj pl.det butcher-instr-det ‘I borrowed all the knives’ (RW 2116)
b. * tākem kulhen-mfn-an i cwk’t-en-a all borrow-appl-1sg.conj pl.det butcher-instr-det ‘I borrowed all the knives’ (RW 2114)

The tali test for extraction raises more complex issues when we look at the fronting of tākem alone. We postpone this discussion to section 8.2.

In Sq, it is usual to have conjunctive morphology in bare i7xw-extraction, as in (100a-c); however, (100d)
shows an instance of non-conjunctive morphology. More research is required on this matter:

100. a. i7xw na huy’-s-t-an ta skwelam all rt eat-caus-tr-1sg.conj det berries ‘I ate all the berries’ (Sq)
b. * men i7xw na s-7xwa7-t-an just all rt nom-give-tr-1sg.conj ‘I gave him all of it’ (Sq)16
c. i7xw na huy’-s-t-an ta st’sukwi7 all rt eat-caus-tr-1sg.conj det fish ‘I ate all the fish’ (Sq)
d. i7xw chen ta71-t ta snichin all I learn-tr det words ‘I learnt all the words’ (Sq)

Secw permits the fronting of xwexweyt while stranding the DP:

101. a. xwexweyt t m-qwets’ets es re nuxwexnxw all obi compl-leave 3conj det women ‘All the women left.’ (Secw)

15 A note is in order regarding (99). Fronting of tākem away from an ergative argument is perfect, as in
(46c,d) above. However, conjunctive and non-conjunctive markings are homophonous for (3rd person)
engative. Fronting of tākem away from the internal argument of a transitive predicate when the subject is
pronounal is ungrammatical, for reasons discussed in section 8. The overt NP in (99b) is the internal
argument of the verb (that is, it is not the argument that is marked on the verb since in ditransitives, the
source/goal is generally the argument that is referenced on the predicate). That extraction of the outer
argument of a ditransitive verb is marginal is significant, as the discussion in Section 8 will show.
However, in order to show that bare tākem has been extracted, we are forced to use the marginal example
in (99b). Although (99b) is marginal, there is nonetheless a real contrast in the minimal pair in (99) which is
due to the distinct types of morphology used.

16 The nominalization on the predicate in (100b) is unexplained at present.
b. xwexweyt t m-wik\-*t-s es re n̓uxwenxw
   all obl det-see-tr-3erg 3conj det woman
   'He saw all the women.' (Secw)

In (101a-b) evidence for extraction comes from the presence of the oblique determiner and from the use of conjunctive morphology. When xwexweyt is fronted, the notional predicate takes conjunctive morphology irregardless of the grammatical relation of the argument that is quantified.

In this section, we have argued that whenever all is in a pre-predicate position, syntactic movement has taken place. It can be fronted with or without its range.

6. The internal structure of quantified phrases

We have argued that all and its range form a single constituent. What is the internal structure of this single constituent? As seen in the following paradigm from St', the discontinuous determiner i-a can appear on either tácem, as in (102a), or on the NP smulhats 'woman', as in (102b).

102.a. qwatsats i-tácem-a smulhats
   leave pl.det-all-det woman
   'All the women left'
   (RW, GN 843)

102.b. qwatsats t̓u7 tácem i-smelh-múl̓hats-a
   leave def.past all pl.det-woman-redup.det
   'All the women left'
   (RW, GN 1784)

To derive the distribution of tácem with respect to the determiner from a single base-structure, we propose that the DPs containing tácem in (102) both have the base-structure in (103).

```
      DP
        \--
         \---
           \--
             \--
         103. Det  i-a  tácem  N'
                             smulhats
```

In (103), the quantifier is in a prenominal position inside the NP; this position is similar to that of a non-predicative adjective such as 'whole'. Under the structure in (103a), i-tácem-a smulhats has a collective (group) interpretation: it means 'the whole (set of) women'. Finally note that the discontinuous determiner i-a must cliticize onto tácem; this cliticization is derived via head-raising of Q (tácem) to Det in the mapping between S-Structure and PF (Phonological Form).

There are two pieces of evidence for this analysis. First, in St', det tácem NP often appears with the determiner ki, which has a collective meaning:

104. tácem-wit nas ki tácem-a s̓íl̓istken
    all-3pl go det all-det underground.house
    'They all went to all the s̓íl̓istkens' ('all the s̓íl̓istkens are in a bunch')
    (RW, GN 2504)

Second, in Sq, DPs where all follows the determiner usually require the presence of men 'just'. In contrast, in DPs where all precedes the determiner, men is absent. The example in (105) suggests that men emphasizes the collective/group reading of i7̓aw. The first noun phrase, containing men i7̓aw, has a collective meaning, whereas the second one, containing i7̓aw alone, means every.\(^{17}\)

105. na wa na7 t̓a sch'iy̓ipshen-s a na men i7̓aw men'mem-s
    r̓l prog be.on obl-det leg-3pos det r̓l just all descenents-3poss
t̓a i7̓aw x̓wm7̓i̓shen
det all dear
    'it is on the leg of all the descendents of every deer'
    (Sq)

Finally, recall that when the range of all is singular in St', the only construal possible is 'the whole NP' (see (71), Section 4).

The order Quantifier Det NP in (102b) is then derived from the base structure in (103), by raising of tácem to the Specifier of DP, as shown in (106). This movement is possible because the prenominal modifier has inherent quantificational force. This movement can take place either overtly at S-Structure (as is the case in (102b)), or covertly at LF (Logical Form). Note that this time the discontinuous determiner i-a must cliticize onto smulhats. Again, this cliticization is derived via head-raising of N (smulhats) to Det in the mapping between S-Structure and PF (Phonological Form).

106.

```
      DP
        \--
         \---
           \--
             \--
         106. tácem \h1
              \h2
               \h3
                \h4
                 \h5
                  \h6
                   \h7
                    \h8
                     \h9
                      \h10
                       \h11
                        \h12
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                                                                 \h53
                                                                  \h54
                                                                   \h55
                                                                    \h56
                                                                     \h57
                                                                  17 Interestingly, Straits Salish also has a construction det all NP, which Jelinek (in press) analyzes as a
determiner followed by a complex predicate. She notes that the complex predicate in the Determiner Phrase ...
produces a collective term'. Hence, the Straits construction further supports our analysis.
6.1 Distributive vs. collective construal

enables are The attach to count nouns. as seen in (i.e. ‘x thinks x is a fool’) (see also Heim 1982).

instance. symmetric predicates), as seen in (109).

We see that in St, quantifiers are clearly sensitive to the count vs. mass noun distinction. This is significant because one of Jelinek’s arguments for the non-existence of Determiner-Quantification in (Strait) Salish is precisely the insensitivity of determiners to the count/mass noun distinction in Straits. That this distinction exists in St, thus, provides further support for D-Quantification.

107. Every man thinks he is a fool

6.1 Distributive vs. collective construal

In St, takem allows either a distributive or a collective construal of the DP it binds. However, takem is not a distributor like each or every. That is, a proposition where takem has scope over say the subject does not entail corresponding propositions about each atomic part of what is denoted by the subject. There are two tests for distributivity. First, distributive determiners cannot attach to mass nouns (they can only attach to count nouns), as seen in (108). Second, distributors are impossible with certain predicates (for instance, symmetric predicates), as seen in (109).

   b. All sand. All water

109. a. The women all gathered/met at noon
   b. *The women each gathered/met at noon

The same is true in St, as shown in (110) and (111).

110.a. peq’ tu7 takem i-maq7-a white part all pl.det-snow-det
       ‘All snow is white’

   b. dts’s-en-likan takem i-maq7-a see-tr-1sg.subj all pl.det-snow-det
       ‘I saw all the snow’

   c. * peq’ tu7 z72zeg’ i-maq7-a white part each pl.det-snow-det
       * ‘Each snow is wet’

   d. pus tu7 takem i-q7-a wet part all pl.det-water-det
       ‘All water is wet’

   e. * pus tu7 z72zeg’ i-q7-a wet part each pl.det-water-det
       * ‘Each water is wet.’

111.a. takem tu7 i-sqdycw-a gew’p all part pl.det-men-det gathered
       ‘The men all gathered.’

   b. * z72zeg’ tu7 i-sqdycw-a gew’p each part pl.det-men-det gathered
       * ‘The men each gathered’

To explain how takem licences either a collective or a distributed reading, we adopt Heim, Lasnik and May’s (1991) analysis of (distributed) plural noun phrases (i.e. the men (each/all)). In particular, in the DP in (106), the operator and its range each have their own separate index: the index of the operator is a quantificational and a referential construal and, 2) why its range must be plural (as is the case in all three languages18); a singular NP cannot be interpreted as distributed since it denotes an atomic individual. The representation of these two readings is given in (113). In (113a), we have a distributed plural NP since the DP has inherited the distribution index of the operator in its specifier, whereas in (113b), we have a (non-distributed) plural NP since it bears a simple range index.

18 Note that plural marking on the NP is obligatory only in St. Plural in Sq and Secw is marked by reduplication of the noun and is optional (there are no plural determiners as in St’). Thus, there is no syntactic way of identifying an NP range as unambiguously singular. The semantics of the NP, however, is plural.
113. 

a. Distributive reading  

\[
\begin{array}{c}
\text{DP} \\
\text{Det} \\
\text{täkmē} \quad \text{D'} \\
\text{NP} \\
\text{i-a} \\
\text{smūlhat}s \\
\end{array}
\]

b. Collective reading  

\[
\begin{array}{c}
\text{DP} \\
\text{Det} \\
\text{täkmē} \quad \text{D'} \\
\text{NP} \\
\text{i-a} \\
\text{smūlhat}s \\
\end{array}
\]

Thus, an NP under the scope of all will have the distributed interpretation of a quantified NP only if all first raises to an operator position and then transmits its index to the whole DP. This interpretation can be derived at S-Structure or at LF.

Finally, note that the head noun in all the above structures can be the non-overt pronominal pro. (114) gives examples of täkmē appearing with no overt range:

114.a. ts'qw-an'-as täkmē k John 

eat-tr-3erg all det John 

'John ate everything.'

(RW, GN 2522)

116.a. s-s men kwelh-at-as-wit i7gw tsw7utsg 

nom-3poss just pour-tr-3erg-pl all out 

'They poured it all out'  

(Sq: Kuipers 1967:239)

(116) shows that i täkmē-a can also occur without an overt range. Notice that i täkmē-a as an argument by itself is often marginal, in particular in (116c-d) which require a nominal to be interpreted as the main predicate. This in line with the dispreferred status of i täkmē-a NP as compared with täkmē i-NP-a:

116.a. ts'qwa-en-lhkan i-täkmē-a 

see-tr-1sg.sub det-all-det 

'They all sang' 

(GN, RW 1739)

116.b. ? smulhats i täkmē-a 

woman pl.det all-det 

'They're all women' 

(GN, RW 839)

116.c. ? syaqtsa7 i täkmē-a 

woman pl.det all-det 

'They’re all women' 

(LT 2694)

The quantified phrases in (116) and (114-5) have the following structures respectively:

117. 

The above analysis of DPs containing all yields a three-way distinction which we now recapitulate because it is crucial to the discussion in the following sections. First, a DP containing prenominal all (as in (103) above) is not quantificational: it has a meaning close to 'the whole NP' where all is merely an adjectival (non-predicative) modifier. Second, operator movement of all within the DP creates the quantificational phrase all the NP, as shown in (106 or 113). This movement takes place at S-structure or at LF. Finally, when the QP inherits the distributive index of its operator, the QP is interpreted as distributed (as in all the men with the meaning each man); when the QP inherits the index of its range, we get a non-distributed interpretation (as in the collective/sum construal of all the men and every man).
7. The pre-predicate position

Now let us turn to the cases of quantifier float: where all (and its range) appears to the left of the predicate.

The situation is illustrated below in (118) for St' (See also section 5).

118.a. \( \text{takem} \text{i-smulhats-a} \text{qwatsts} \)
\[ \text{all pl.det-woman-det leave} \]
\[ \text{'All the women left'} \]

118.b. \( \text{takem qwatsts i-smulhats-a} \)
\[ \text{all leave pl.det-woman-det} \]
\[ \text{'All the women left'} \]

c. * \( \text{i-takem-a smulhats qwatsts} \)
\[ \text{pl.det-all-det woman leave} \]
\[ \text{'All the women left'} \]

d. * \( \text{i-takem-a qwatsts (smulhats)} \)
\[ \text{pl.det-all-det leave woman} \]

To explain the above paradigm, we must answer the following three questions: 1) why is fronting of all (without or without its range) possible, 2) what is the landing site of this movement and 3) why is it impossible in (118c-d). The first question is particularly relevant in St' because NPs occur only marginally in sentence initial position in this language, whereas both Secw and Ssq allow NPs to occur sentence-initially. Notice also that in (118b), the quantifier is fronted without its range. Finally, note that the only difference between the ill-formed (118c-d) and the well-formed (118a-b) is that the quantifier follows the determiner instead of preceding it; for a parallel contrast in Ssq, compare (88-9) with (90).

7.1. Quantifier-float as Quantifier-raising (QR)

We propose that movement of all to a pre-predicate position is the result of Quantifier-raising (QR) at S-Structure. In particular, consider the St' examples in (118a-b). We have already argued that the order \( \text{takem i-smulhats-a} \) is derived by operator movement inside the DP of \( \text{takem} \) to Spec DP, (following Reinhart 1987). Once the operator raises to an operator position inside the DP (as in (106) above), it can further raise all the way up to an operator position inside the clause. There are two canonical positions to which operators can raise to, at either S-Structure or LF: they can either land in Spec CP or in Spec IP. For concreteness, we assume that \( \text{takem} \) in say (118 a) adjoins at S-Structure to IP, as shown in (119):

119. \( [\text{IP takem}] [\text{IP qwatsts}] [\text{IP i-smulhats-a}] [\text{IP det-nomsay}] \)
\[ \text{all pl.det-woman-det leave pl.det-woman-det} \]
\[ \text{'All the women left'} \]

In (120) which is the S-Structure representation of the sentence in (118b), the quantifier has adjoined to IP at S-Structure, pied-piping its range:

120. \([\text{IP takem}] [\text{IP i-smulhats-a}] [\text{IP qwatsts det-nomsay}] [\text{IP det-nomsing}] \)
\[ \text{all pl.det-woman-det leave pl.det-woman-det} \]
\[ \text{'All the women left'} \]

Thus, in (119-120), \( \text{takem} \) occupies at S-Structure the position that a quantifier will eventually occupy at LF. The same analysis extends to Secw and Ssq.\(^{19}\)

This analysis explains why fronting of DET ALL NP is impossible in both St' and Ssq (see (87, 118 c-d) and (90) respectively). Recall that \( \text{takem} \text{i-smulhats-a} \) has the structure given in (103) above where \( \text{takem} \) is a modifier in prenominal position. Operator movement internal to the DP creates a quantificational phrase (with the further proviso that this DP will have a distributed construal only when it inherits the index of the operator in its specifier). Thus, the DP \( \text{takem-a (smulhats)} \) does not have the syntactic status of a QP. It is not quantificational because it does not contain a Q in an operator position, but merely a prenominal adjectival modifier. Then, raising of \( \text{takem-a (smulhats)} \) at S-Structure in (118c-d) is impossible because QR is restricted to QPs. In other words, all cannot raise to an operator position within the clause at S-Structure unless it has first raised to an operator position within the DP at S-Structure.

Further support for analyzing quantifier float as QR is provided by the fact that this movement is clause bound. Compare the ill-formedness of (121a-b) with the well-formedness of (121c):

121.a. * \( \text{i-takem say-Isg.obj-2sg.poss det-nom Mary det-nom singpl-det-woman-det} \)
\[ \text{Mary told me that all the women sang} \]
\[ (\text{WR, GN 1435}) \]

121.b. * \( \text{i-takem say-Isg.obj-2sg.poss det-nom Mary det-nom singpl-det-woman-det} \)
\[ \text{Mary told me that all the women sang} \]
\[ (\text{AA 2765}) \]

c. \( \text{starn' kw-s Mary kw-s Mary kw-s singpl-det-woman-det} \)
\[ \text{You told him that Mary stole all the books} \]
\[ (\text{AA 2765}) \]

(121c) is an instance of long distance wh-movement which, like relativization, is not clause-bound. On the other hand, (121a-b) are ill-formed. We assume that their ungrammaticality derives from a general property of QR, namely that it is clause bound.

7.2. Q-movement vs. Focus-movement

Strictly speaking, QR is merely a rule that raises an operator to an operator position. Different types of operators can undergo this movement, as shown below. In (122a), a universal quantifier is raised at LF.

\(^{19}\) There are two canonical operator positions (Spec CP and Adjunction to IP). There might be parametric variation with respect to the landing site of the operator. Thus, the presence of a determiner on the notional predicate in cases of all-factoring in Secw suggests that the quantifier is raised to Spec CP whereas the impossibility of a determiner on the predicate in St' suggests that the quantifier adjoins to IP.
whereas in (122b) a focussed NP is raised at LF. That focussed NPs undergo QR is supported by the fact that they trigger Weak Crossover effects, just as quantifiers do, as shown in (122c-d).20

122. a. Every girl left --> LF: [\text{\{p Every girl\} \{p t\} left}]
b. MAX left --> LF: [\text{\{p MAX\} \{p t\} left}]
c. *Hisj\text{ mother loves every manj}d. *Hisj\text{ mother loves MAX}_j

We have argued that quantifier float is QR at S-Structure. We will now show that some instances of S-Structure QR of all involve focus (parallel to (122b)), whereas others involve quantification (parallel to (122a)).

7.2.1. Evidence for Focus-movement

The clearest evidence for focus-movement comes from Secw, where there are various tests which distinguish a focus position from both an internal and an external topic position (see Gardiner 1993). In (123), all has been fronted along with its range to a focus position. The landing site of the quantified (122a).

Further, the morphology on the notional predicate (see (124b)) suggests that it has the syntax of clefts and both questions and clefts involve focussing an NP. In (125a), the fronted DP is in an external topic position, as can be seen from the fact that it precedes the wh-word. In (125b), the fronted phrase is in an internal topic position, as can be seen from the fact that it follows the wh-word. External topics occur to the left and internal topics occur to the right of the wh/focus position. Unlike wh-movement and focus constructions, neither of them trigger special morphology on the notional predicate.

7.2.2. Evidence for Q-movement

Secw provides strong evidence for quantifier float as Q-movement. Gardiner (1993) argues that wh-questions occupy a focus position since wh-questions have the syntax of clefts and both questions and clefts involve focussing an NP. In (125a), the fronted DP is in an external topic position, as can be seen from the fact that it precedes the wh-word. In (125b), the fronted phrase is in an internal topic position, as can be seen from the fact that it follows the wh-word. External topics occur to the left and internal topics occur to the right of the wh/focus position. Unlike wh-movement and focus constructions, neither of them trigger special morphology on the notional predicate.

In Sq, fronted i7gw constructions are sometimes translated as clefted sentences, which have the semantics of focus, as shown in (124a). Further, the morphology on the verb in (124b) suggests that it has the structure of a cleft. Recall from Section 1.2.2, that relative clauses induce a special subject marking on the verb.

As for St', it is not clear when (or whether) the quantified phrase is undergoing Q-movement or Focus-movement. In Secw and Sq, we can tease these two movements apart on the basis of their respective syntactic properties: Focus-movement patterns with wh-movement and clefting whereas Q-movement patterns with topicalisation, as shown below. (In section 8, we will see why this is the case). In the following sections, we will see that there are ways of teasing these two movement apart even in St'.

125. a. xwexwé?yt re tutuíwt swé?i7 k t'súm-qs-n-s all det boys who irr kiss-nose-tr-3erg 'All the boys, who did they kiss?' (Secw)
b. swé?i7 xwexwé?yt re tutuíwt k t'súmqs-n-s who all det boys irr kiss-nose-tr-3erg 'Who did all the boys kiss?' (Secw)

In Section 8, we argue that the range of a quantifier must be a topic. Thus, the fact that the extracted DP lands in an external topic position in (125a), and in an internal topic position in (125b), provides strong support for deriving these sentences via Q-movement at S-Structure.

Further, recall that in Sq, there is a contrast between main clause subject marking and relative clause subject marking (see Section 1.2.2). Thus, (126) below contrast with the previous Sq example (124b) in one respect: (126) has main clause subject marking whereas (124b) has relative clause subject marking.

126. a. i7gw chen ta?71-t a skwgw?w7mesh snichim all I learn-tr det Squamish words 'I learnt all the Squamish words' (Sq)

The contrast between (124b) which has a clefted structure and (126) which has a dislocated structure supports our claim that extraction of all is either focus-movement (124b) or Q-movement (126).

We now turn to semantic evidence for analyzing certain instances of extraction of all (with or without its range NP) as Q-movement. Consider the following example from St', where the possessive pronoun is construed as a bound variable:

127. a. tækm tu? swat ts'um-qs-án'-it-as i-skicze7-t-ha all part who lick nose-tr-3pl-3erg pl.det-mother-3pl.poss-det 'They all kissed their (respective) mothers.' (AA 2657)
b. tækm i-stsmdلت-t a ts'um-qs-án'-it-as i-skicze7-t-ha all pl.det-child-det who lick nose-tr-3pl-3erg pl.det-mother-3pl.poss-det 'All the children kissed their (respective) mothers.' (AA 2657)
The bound variable interpretation of the pronoun in (127) is not possible unless the quantifier distributes over the members of the set of individuals specified by its range (the set of children). As we shall see in section (8), the strong quantificational reading of a QP (that is, its distributed reading) is incompatible with focus; more precisely, the strong quantificational reading requires the quantifier to bind a topic. Thus, (127) unambiguously involves Q-movement.

The bound variable interpretation in (127b) resulting from Q-movement of the quantifier is represented below; note that the possessive pronoun is under the scope of a DP which has inherited the distribution index of the operator in its specifier.

Further support for this analysis comes from the interaction of post-verbal tākem with wh-movement. The question in (128) allows either the individual answer in (129a) or the pair list answer in (129b).

However, a distributive reading is also fine without tākem in (128). This is predictable because the quantifier's range NP is (must be) plural, and a plural NP always allows a distributive reading itself, as seen in the English sentence The men left. This sentence has two readings: each man left separately, or the men left collectively as a group. Thus, a distributive reading in (128) is possible with or without tākem as long as the post-verbal DP is plural. In fact, our consultant prefers the distributive reading without tākem and the collective reading with tākem. It seems, therefore, that post-verbal tākem in the above example forces a collective reading. In contrast, in (127) with preverbal tākem, we clearly get a distributive reading.

Now, we cannot use wh/quantifier interaction to test whether pre-predicate tākem allows a strong quantificational reading because St' does not allow more than one constituent to be fronted to the left of the predicate. We can, however, test the interaction of wh-phrases with pre-predicate all in Secw because there is no such restriction. When asked how to render the distributive reading, the consultant offered the external topic structure:

130. xwexw̓eit ʔe tuuteuweit swétet7 k ts'um-qs-n-s all det boys who irr kiss-nose-tr-3erg 'All the boys, who did they kiss?' (Secw)

In (130), the quantified phrase in the external topic position, preceding both the wh-phrase and the predicate. Further, (130) has a distributive reading; notice that this construal is reflected by the order of the quantifiers: the universal xwexw̓eit precedes the indefinite swétet7. The syntactic position of this QP and its construal, thus, confirm our analysis of Quantifier-float as Q-movement.

Final evidence for this analysis comes from both St' and Sq. In the following examples, the preverbal NP cannot have a collective/sum interpretation since it is quantifying over times, its range is a temporal noun phrase.

8. Raising bare tākem vs. raising [DP tākem NP] in St'
8.1. A restriction on quantification over the absolute

A very intriguing property of quantifier floated constructions in St' is illustrated below:

8.2. a.

132. a. t'aa-l-eq̓en-ʔamnik-a tākem i-qwalimmak-a bite-tr-3pl.obj-pass-3pl all pl.det-mosquito-det They were bitten by all the mosquitoes.' (LT 17-6-94)

b. tākem t'aa-l-eq̓en-ʔamnik-a all bite-tr-3pl.obj-pass-3pl all pl.det-mosquito-det 'Everyone bit the mosquitoes.'

‘The mosquitoes bit everyone.’ (LT 17-6-94, RW 23-6-94)

Notice the difference in interpretation between (132a-b): in (a), we have a passive sentence where tākem has scope over the passive agent. 'Thus (132a), basically is equivalent to 'all the mosquitoes bit them'. In contrast, this reading is impossible in (132b). In fact, the only possible reading is the pragmatically very odd reading in which everyone bites the mosquitoes. Thus, it seems that when bare tākem is fronted, it can only have scope over the ergative argument. This restriction is confirmed by the following contrast:

133. a. * tākem t'aa-l-eq̓en-ʔam t's'iʔ7-a all see-tr-1sg.conj det-deer-det 'I saw all the deer' (BF, RW 2752)
domain of focus, the individual answer is the only one structure 22 For (i.e. the existence of a set of men).

in the text because the quantifier in object position is necessarily part of the domain of focus. Thus, the unavailability of a strong quantificational reading (i.e. of the distributive reading in (134b-c)) when a quantified NP is focussed is not surprising: no restrictive clause defining the set that the quantifier ranges over can be formed, since there is no presupposition of existence when the NP is focussed.

With this in mind, let us return to the contrast in (133). Note that (in the unmarked case) the ergative argument generally corresponds to the topic of the sentence (see Kinkade 1989, Mathewson 1993, Roberts 1994, Davis this volume). In contrast, the absolutive argument is in the unmarked case, inside the domain of focus (VP) (see Davis this volume, Roberts 1994). We have argued that fronting of tèkem is possible because the quantifier can be analysed as an operator that (quantifier-) raises out of the DP in which it was base-generated. Now, once tèkem has raised out of its noun phrase and adjoined to IP at S-structure, the stranded DP must provide a range for the quantifier. This is possible only if the stranded DP is a topic. Thus, raising in (133a) is disallowed because the restriction of the quantifier, i-ts'ī7-a (the set of deers), cannot be interpreted as the topic of the sentence since it is the internal argument of the verb, within the VP, the domain of focus. This is illustrated below.

Note that the correlation between quantifiers and topics (and definite NPs in general) is well established in the literature (see Berman 1991, Diesing 1992, Mitsark 1974 among others). Topics are presuppositional (since their referent has been previously introduced in the discourse). Likewise, QPs are also presuppositional: every man presupposes the existence of the set that the quantifier ranges over (i.e. the existence of a set of men). So, for instance, strong quantifiers are excluded from existential sentences, just like specific (presuppositional) NP; this was illustrated in (2b) for Straits23. Thus, the restriction of the quantifier represents the presupposition of existence induced by the quantifier (see in particular Berman's (1991) motivation of QR in terms of 'Presupposition accommodation'). Thus, the unavailability of a strong quantificational reading (i.e. of the distributive reading in (134b-c)) when a quantified NP is focussed is not surprising: no restrictive clause defining the set that the quantifier ranges over can be formed, since there is no presupposition of existence when the NP is focussed.

As is well-known (134a) is ambiguous: it allows an individual answer (i.e. Rex) or a pair list answer (i.e. Rex talked to Max, Dobbie talked to Sam...). In contrast, (134b) is unambiguous: it only allows the individual answer (i.e. Rex). Erteschk-Shir (1993) argues that the distributive reading is only available when the quantifier quantifies over a topic. Now, in the unmarked case, the subject of a sentence can be identified with the topic and the VP with the focus. In (134a), the quantified NP is in subject position and, thus, its range ('kid') can be interpreted as the topic of the sentence. The list answer to (134a) is possible precisely because the quantifier binds a topic.22 In contrast, when the quantified NP is focussed (by assigning stress to it), the list answer is no longer available. Thus, the only possible answer to (134c) is the individual answer (i.e. Rex):

As is well-known (134a) is ambiguous: it allows an individual answer (i.e. Rex) or a pair list answer (i.e. Rex talked to Max, Dobbie talked to Sam...). In contrast, (134b) is unambiguous: it only allows the individual answer (i.e. Rex). Erteschk-Shir (1993) argues that the distributive reading is only available when the quantifier quantifies over a topic. Now, in the unmarked case, the subject of a sentence can be identified with the topic and the VP with the focus. In (134a), the quantified NP is in subject position and, thus, its range ('kid') can be interpreted as the topic of the sentence. The list answer to (134a) is possible precisely because the quantifier binds a topic.22 In contrast, when the quantified NP is focussed (by assigning stress to it), the list answer is no longer available. Thus, the only possible answer to (134c) is the individual answer (i.e. Rex):

134. a. Who did every kid talk to?
   b. Who talked to every kid?

As is well-known (134a) is ambiguous: it allows an individual answer (i.e. Rex) or a pair list answer (i.e. Rex talked to Max, Dobbie talked to Sam...). In contrast, (134b) is unambiguous: it only allows the individual answer (i.e. Rex). Erteschk-Shir (1993) argues that the distributive reading is only available when the quantifier quantifies over a topic. Now, in the unmarked case, the subject of a sentence can be identified with the topic and the VP with the focus. In (134a), the quantified NP is in subject position and, thus, its range ('kid') can be interpreted as the topic of the sentence. The list answer to (134a) is possible precisely because the quantifier binds a topic.22 In contrast, when the quantified NP is focussed (by assigning stress to it), the list answer is no longer available. Thus, the only possible answer to (134c) is the individual answer (i.e. Rex):

134. c. Who did EVERYONE talk to?

Likewise, in (134b), the distributive reading is excluded because the quantifier does not bind a topic. That is, the quantified NP is the internal argument of the verb, and therefore within VP, the domain of focus. The strong quantificational reading of the quantified NP would require interpreting the object as a topic and thus violating the canonical mapping of subject to topic.

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With this in mind, let us return to the contrast in (133). Note that (in the unmarked case) the ergative argument generally corresponds to the topic of the sentence (see Kinkade 1989, Mathewson 1993, Roberts 1994, Davis this volume). In contrast, the absolutive argument is in the unmarked case, inside the domain of focus (VP) (see Davis this volume, Roberts 1994). We have argued that fronting of tèkem is possible because the quantifier can be analysed as an operator that (quantifier-) raises out of the DP in which it was base-generated. Now, once tèkem has raised out of its noun phrase and adjoined to IP at S-structure, the stranded DP must provide a range for the quantifier. This is possible only if the stranded DP is a topic. Thus, raising in (133a) is disallowed because the restriction of the quantifier, i-ts'ī7-a (the set of deers), cannot be interpreted as the topic of the sentence since it is the internal argument of the verb, within the VP, the domain of focus. This is illustrated below.

In contrast, QR in (133b) is allowed because the restriction of the quantifier can be interpreted as the topic of the sentence since it is the ergative (external) argument:

The same explanation carries over to the paradigm in (132). (132b) can only have the pragmatically very odd reading represented in (136a) below, where i-qwał'ımak-a is inside the VP, within the domain of focus, and the quantifier binds the ergative (null) argument (i.e. the topic). The reading in (136b) is excluded because i-qwał'ımak-a is interpreted as the subject (i.e. the topic), and the null range of the quantifier is within the domain of focus.

21 See Erteschk-Shir (1993) for a discussion of this paradigm and, more generally, of how topic/focus structure determines the different interpretation of quantifiers (collective vs. (semi-)distributive readings).

22 For Erteschk-Shir (see pages 246-7), the collective reading of the quantifier is possible because the NP it binds can, but need not, be interpreted as a topic. Thus, (134a) has two possible topic/focus structures:

i. Who did everyone talk to t1 i影业?
   Who did everyone talk to t1 i影业?
   When it is interpreted as a topic, as in (i), the list answer ensues. When it is not the topic but part of the domain of focus, the individual answer is the only one possible. The list answer is not possible in (134b) in the text because the quantifier in object position is necessarily part of the domain of focus.

23 This is also the case in Secw, Sq and Sr, see for instance the contrasts in (28) or (29), in section 2.
Note that since quantifier raising out of the ergative argument is allowed, the sentence in (132b) should also have the reading in (137):

137. * [IP tākem 1 [IP t’ol-aon’-it-as [vp proj 1 [DP t] [i-qwal’imak-a] ]] bite-tr-3pl-3sg.conj all det-mosquito

The reading in (132) where the quantifier binds the ergative argument is not grammatical. Indeed, this reading can only be elicited as the passive in (132a). The ungrammaticality of (137) is a reflex of Gerds’ (1988) One-Nominal Interpretation effect: there is a strong preference for interpreting a single overt argument as an object (and not as a subject). As argued by Roberts (1994), the One-Nominal Interpretation effect is due to the interaction of two syntactic properties: 1) the canonical mapping of focus (or predication) onto the VP and topic (of the predication) outside the VP, and 2) the anaphoric (i.e. bound variable) status of pronoun arguments: not only is their reference presupposed in the discourse, but they can never refer independently (that is, be used deictically). These two properties conspire to force the pronominal argument (in a transitive sentence with a single overt NP) to be linked to the topic and the lexical argument to be inside the VP, since overt arguments introduce new information and VP represents the predication (the new information) of the sentence. (See in particular Davis (this volume) for a discussion of the One-Nominal Interpretation in terms of the mapping of discourse functions onto syntactic structure). Thus, the readings in (136b) and (137) are ungrammatical for two reasons: the single overt NP must be inside the domain of focus and the range of the quantifier cannot be within the domain of focus. Now this restriction on which argument (ergative vs. absolutive) tākem can bind disappears when its range is not stranded (in a post-predicate position), as shown below:

138. [IP tākem i-sq’wel-a] 1 [IP ts’aqw-an’an [vp eat-tr-1sg.conj det-berries det all]]

(RW 2121)

In (138), the quantifier can bind the absolutive argument precisely because the quantifier and its range have both been raised out of the domain of focus at S-structure. The above structure is well-formed; the restriction of the quantifier is a topic (i.e. is not inside the VP).

Recall, however, that we argued that quantifier float could be analysed as either Q-movement or Focus-movement. The above contrast between extraction of tākem with its range and extraction of tākem without its range leads us to the following conclusion: extraction of the whole DP can be analysed as either Q-movement or Focus-movement, since there is no restriction on the range of the quantifier. In contrast, extraction of a bare quantifier is unambiguously an instance of Q-movement, since there is a restriction on which argument can serve as its range. Floated bare tākem cannot be construed with the absolutive argument because quantifiers quantify over topics, and the absolutive argument must remain VP-internal - else the One-Nominal Interpretation is violated. Section 9, where we examine the distribution of the topical object marker tali, will provide further support for this analysis.

Note that this state of affairs is not unexpected since when we extract tākem and its range, we are extracting a whole DP. The latter can be construed referentially (as a sum of individuals) or quantificationally (as a set). The only claim we are making is that the quantification/ set reading entails that the QP is in a topic position. On the other hand, extraction of bare tākem at S-structure is unambiguously Q-movement because it yields precisely the structure of a quantification sentence at LF. In particular, for Heim (1987) and Reinhart (1987), a quantifier must Q-out of its NP in order to bind any variable in its restriction and in its scope (i.e. [P every X [P man(x) [x is a fool]]]).

We have derived the restriction on the range of fronted bare tākem from the requirement that a quantifier bind a topic (since the Q presupposes the set over which it ranges). This restriction, however, is surprising in so far as Gerds (1988) uncovered the reverse restriction in Halkomelem. In particular, she argues that in sentences with two overt nominals, fronted bare all cannot have scope over the ergative (Gerds 1988: 78-ff). Interestingly, the preferred word order in Halkomelem is VSO, although word order is not fixed for some speakers (Gerds 1988: 42). Since an object must be base-generated as the internal argument the verb (as a sister to V, directly theta-marked by V), VSO must be derived from VOS by scrambling of the object outside the VP (i.e. [VP VOS] > [VP V t l S O]). This suggests that deriving word order is the key way to explain why Halkomelem does not allow the absolutive to serve as the range of the fronted bare all: the scrambled object is outside the domain of focus (VP), whereas the ergative is stranded within the VP. We, thus, conjecture that the absolutive restriction in Halkomelem, is also derivable from the requirement that a quantifier bind a topic.

Note that in St’, there appears to be no restriction on the range of floated tākem in transitive sentences with two overt nominals. We have found examples in our data-base where the quantifier can have scope over either the ergative or the absolutive (see 86b), Section 7). Thus, it seems that in sentences with two overt nominals, either NP could be scrambled out of the VP to serve as the range of the quantifier (or remain VP-internal). As the ungrammaticality of (137) clearly illustrated, the absolutive restriction only holds in transitive sentences where a single overt NP is forced to remain within the domain of focus (must be interpreted as the object, in conformity with the One-Nominal-Interpretation effect).

Finally, notice that when tākem occurs in a post-predicate position, there is no restriction on which arguments it binds. Thus, in (139), tākem is linked to the absolutive argument:

24 It is notable that Chung (1990) analyses Chamorro as VOS. She derives VSO order by lowering S into the VP. In Chamorro, like Halkomelem there is a ban on the extraction of ergative quantifiers.

25 Sentences with two overt nominals in St’ must be checked more systematically in order to understand their topic/focus structure with and without quantification. In particular, it is not clear why they are marked sentences in the first place (see Davis (this volume) for a discussion of precisely this point).
There is no restriction on the range of takem in the above sentences because nothing prohibits a QP from remaining within the domain of focus (VP) at both S-structure and LF. We predict, however, that the collective/sum construal of the QP will be strongly preferred, as in English (see the discussion of the paradigm in (134) above): the distributed/set construal will be possible only if the quantifier binds a topic, and this would violate the One-Nominal-Interpretation. We have not further tested this prediction but the data we have collected is consistent with it since all the readings that are clearly distributive involve Q-movement (see section 7). In particular, recall that when the absolutive argument was questioned as in (128) above, there was a preference for construing the plural ergative argument as distributed without takem and as collective with takem. Also, recall that when asked for a distributive reading, the consultant for Secw volunteered (130, repeated below) where the QP is in the external topic position.

130. xwexwëyt re tuwuwi7 swëti7 k ts'ûm-gs-n-s all det boys who irr kiss-nose-tr-3erg 'All the boys, who did they kiss?' (Secw)

In the next section we provide further support for our analysis of bare takem extraction as unambiguously Q-movement vs. extraction of [pp takem NP] as either Q-movement or Focus-movement.

8.2 The topical object marker tali

Consider the following paradigm:

140.a. *takem at'sx'en-tali ta-sqaycw-a i-ucwalnicw-a all see-tr-TO det-man-det pl.det.person-det 'All the people saw the man.' (LT 2453)

b. Takem i-sqay-qeycw-a at'sx'en-tali go def.past deic det-coyote-det all pl.det-man-redup-det see-tr-TO 'The coyote was going along and all the men saw him.' (RW 2882)

As we see in (140a), the topical object marker (discussed in Section 1.2.1) is illicit on the main predicate when bare takem is fronted to a sentence initial position. In contrast, we see that in (140b), where takem has pied-piped its range, tali is licit on the main predicate. Why is tali incompatible with bare takem extraction? Recall that tali appears on the predicate in St only in sentences where ergative extraction has occurred. In particular, it occurs when the ergative argument is either questioned or relativized, as in (141).

141.a. swat ku tsuw'n-tali ti-sqaycw-a who det kick-tr-TO det-man-det 'Who kicked the man?'

b. ti-sqaycw-a tsuw'n-tali ta-k'et'h-a det-man-det det-kick-tr-TO det-rock-det 'the man who kicked the rock'

Question formation and relativisation are syntactic processes that both involve focussing of an NP: the wh-phrase in (141a) is the focus of the sentence (since the purpose of a question is to seek new information). Likewise in the relative clause in (141b), the head noun ti-sqaycw-a is the focus (the new information) with respect to the subordinate predication tsuw'n-tali (which is old information). Thus, as argued by Roberts (1994), tali appears on the predicate when the ergative is focussed (See in particular Davis (this volume) for an analysis of tali and its effect on the mapping of discourse functions onto syntactic structure).

Let us go back to the paradigm in (140). Since tali appears when the ergative is focussed, then the preverbal constituent [pp takem NP] must be the focus of the second sentence in (140b) (note that the coyote was introduced in the first sentence of this stretch of discourse and is referenced by a pronominal in the second sentence). Now, recall that there are two alternative analyses of [pp takem NP] in sentence initial position: Q-movement as in (142a), or focus movement as in (142b):

142.a. [ip [dp tali i-sqay-qeycw-a]Top [ip at'sx'en-as ts'i]] all pl.det-man-redup-det see-tr-3erg 'All the men saw him'

b. [ip [dp tali i-sqay-qeycw-a]Loc [ip at'sx'en-tali ts'i]] all pl.det-man-redup-det see-n-TO 'All the men saw him'

Since tali signals that the ergative is focussed, then (140b) must be derived via focus-movement, as in (142b). Recall, that focussing constrains the range of interpretations of a QP. Thus, in (143a), focussing the QP (by assigning stress to it) eliminates the distributed construal (only an individual answer is possible).

143. a. Who do ALL THE KIDS love?

b. A policeman arrested all the students

Likewise in (143b), where the QP is within the domain of focus, the distributed reading in which the QP has scope over the subject is impossible to get. This sentence cannot mean 'For every x (x a student), there is a y (y a policeman), such that y arrested x' (see Erteschik-Shir 1993).
Notice that we have now two ways of unambiguously identifying the type of movement involved: 1) the presence of tali signals that the fronted (ergative) argument is the focus, and 2) the interpretation of the fronted constituent: the strong quantificational/distributed construal entails Q-movement.

Let us now turn to the ungrammaticality of (140a): why is bare tākem extraction incompatible with tali? Precisely because extraction of bare tākem is an instance of Q-movement (as argued in the previous section). So the ungrammatical (140a) must have the following representation:

144. * [IP IP tākem] [IP ats'x-en-tāli ta-qālcyw-a] [IP ats'x-en-tāli i-ucwalmcw-a] ]
   all see-tr-TO det-man-dei pl.det-person-det
   'All the people saw the man'

In (144), the fronted Q must have a range.28 Further the argument that defines its range must be a topic, as was illustrated in (135) repeated below:

135.a. * [IP tākem] [IP [VP ats'x-en-an ti i-tu7-a]FOC ]
   all see-tr-1sg.conj det-dear-det
   'I saw all the deer' (BF, RW 2752)

135.b. [IP tākem] [IP [VP ats'x-en-tsdì-it-as]FOC ti i-qālcyw-a ]
   all see-tr-1sg.obj-3pl-3erg det-men-det
   'All the men saw us' (LT 2602)

If extraction of tākem is an instance of Q-movement, the incompatibility of tali with bare tākem extraction, in say (144), comes as no surprise: tali requires the ergative to be focussed, whereas QR of tākem requires the ergative to be a topic.

Finally, consider the following example, which contrasts with (140a) in two respects: 1) fronted bare tākem does not have an overt range, and 2) tali is marked on the verb:

145. T'āk nii7 kā7 ti-nāy-p-a. Tākem ats'x-en-tāli
goi def.past deic det-choyote-det all see-tr-TO
i-ucwalmcw-a. pl.det-person-det
   'A coyote was going along. *All the people saw it / Everyone saw the people.'

Now, notice that the second sentence is grammatical this time with tali.29 We cannot tell whether or not the range of the quantifier has been stranded in its base-position because the range is null. However, since the sentence is grammatical with tali, we know that (145) is not an instance of Q-movement. Recall also, from section 8.1, that fronting of a bare Q with an overtly stranded range must involve Q-movement. Then (145) must be movement of a whole DP with a null head (pro). That is, tali is allowed on the main predicate because (145) can be analysed as focus-movement of a DP:

28 A quantifier must bind something, vacuous quantification is prohibited.
29 Notice that the only reading it can have is very odd given the context of the previous sentence; this is again a One-Nominal-Interpretation effect: the single overt nominal must be construed as the object.

146. [IP [DPI tākem pro]FOC [IP ats'x-en-tāli i-ucwalmcw-a ti ]]
   all see-tr-TO pl.det-person-det
   'Everyone saw the people.'

In contrast, tali was not licensed in (140a) because this sentence is unambiguously an instance of bare Q-movement at S-Structure, as shown in (144). This analysis is nicely corroborated by the following contrast:

147. a. * [IP tākem] [IP [VP ats'x-en-an ti i-tu7-a]FOC ]
   all see-tr-1sg.conj det-dear-det
   'I saw all the deer' (BF, RW 2752)

   b. tākem ats'x-en-as all see-tr-3sg.conj
   'He saw everything' (RW, GN 2526)

As was discussed in section 8.1, when bare tākem is extracted in a transitive sentence with a single overt NP, it can only be construed with the ergative argument. Then why can tākem be construed with the absolutive argument when it has no overt range, as in (147b)? The answer is the same as the one just given to explain (145). Extraction of tākem without an overt range is ambiguous: it can be analyzed as movement of a DP with a null head (pro) or as movement of a bare Q, with a stranded null range. However, we know that (147) cannot be Q-movement since there is no restriction on the construal of the quantifier.

To recapitulate, the claim that extraction of tākem with no overt range is focus-movement of a DP with a null head explains the presence of tali on the predicate in (148a-b) (tali appears when the ergative is focussed), and why the focussed DP can be construed as the absolutive argument in (148c).

148.a. [IP [IP tākem pro]FOC [IP ats'x-en-tāli ]]
   all see-tr-TO
   'Everyone saw it/her/him' (RW, GN 2527)

   b. [IP [IP tākem pro]FOC [IP ats'x-en-tāli i-ucwalmcw-a ]]
   all see-tr-TO pl.det-person-det
   'Everyone saw the people' (LT 2701)

   c. [IP [IP tākem pro]FOC [IP ats'x-en-as ]]
   all see-tr-3sg.conj
   'He saw everything' (RW, GN 2526)

In contrast, extraction of tākem—when its range is overtly stranded—is unambiguously Q-movement. This is why tali is impossible on the predicate in (149a vs. 149b) (tali requires the ergative to be focussed, whereas Q-movement requires the ergative to be a topic); and why tākem cannot be construed as the absolutive argument as in (149c) (the absolutive must remain within the domain of focus, cf. the One-Nominal Interpretation effect).
An interesting twist is that wit appears on tākem rather than on the main predicate. This is so because wit in St' is a second-position clitic which phonologically attaches to the first element in the sentence.

Whereas pronominal affixes that reference an argument on a predicate can freely cooccur with overt arguments, the plural marker wit cannot cooccur with a lexical argument. Thus, we analyse wit as a pronominal argument and not as an agreement marker. In other words, wit overtly specifies the pronominal range of the quantifier. Note that this range need not be overt when it is recoverable from the discourse context. Thus, if you set up a context where the range has already been introduced, wit is not required.

> 153. Cw7it i ss'qwaqwa'a. Tākem t'u7 zūmak.
  > many pl.det fish-det all part spring.salmon
  > 'There's lots of fish. They're all zūmak.' (volunteered form) (LT 2726)

In the preceding section, we argued that extraction of tākem with no overt range in a transitive sentence can be analysed as movement of a DP with a null head pro, as in (154a). In intransitive sentences, the pronominal range of the quantifier is overt, as shown in (154b).

> 154.a. [IP [IP [IP tākem pro] [IP at's'en-as ti ]] all see-tr-3sg.conj 'He saw everything' (RW, GN 2526)
  > 154.b. [IP [IP tākem wit] [IP qwatsats ti ]] all 3pl leave 'They all left' (AA 2805)

In both instances of (154) we are fronting a DP with a pronominal head: in (154a), the pronominal is overt whereas in (154c), the pronominal is null.

### 8.3.1. The plural marker wit in Sq

Sq also has the plural marker wit (it is restricted to human arguments, compare (155a-b) with (115) section 6.1). When Sq is construed with the subject of an intransitive predicate, wit must be present as the following paradigm illustrates (note that the nominal is the main predicate since it does not have a determiner). Notice also that the particle men can rescue (155a), as in (155c); the reason for this is not clear though.

> 155. a. * i7qw shenihnay'all women 'They're all women'
As was the case in St', wit does not co-occur with overt lexical arguments. Interestingly, however, wit is allowed in transitive clauses in Sq. Again, when i7gw is present, then wit must attach to it.

As was the case in St', wit does not co-occur with overt lexical arguments. Interestingly, however, wit is allowed in transitive clauses in Sq. Again, when i7gw is present, then wit must attach to it.

156. a. chen ch'aw-at-wit
   I help-tr-pl
   'I helped them'

b. chen ch'aw-at i7gwixw-wit
   I help-tr all.redup-pl
   'I helped all of them'

Finally note that the plural marker in Sq is not confined to second position as in St'. It can attach to clitics (157a), to the main predicate (157b) and even to a demonstrative (157c).

157. a. na-wit wa i7lut
   rl-pl prog sleeping
   'they're sleeping'

b. i7gw shilenhánay'-wit
   all women-pl
   'they're all women'

c. chen kw'ach-nexw kwetsi-wit kwi chel'qih
   I see-tr dem-pl det yesterday
   'I saw those ones yesterday'

Thus, Sq confirms our analysis of tâkem with no overt range as the null headed DP [tâkem pro]. When the pronominal range of the quantifier in Sq is human and plural, it is spelled out as wit, whether the predicate is transitive or intransitive.

9 Conclusion

We have argued that the syntax and semantics of all entails the existence of D-Quantification in (at least) three Salish languages. We first showed that all has neither the syntactic nor the semantic properties of an A-Quantifier: it is not an auxiliary or an adverb, and it is not an unselective binder. We then argued that all and the DP which defines its range form a single constituent. The distribution of all with respect to the determiner and its range is derived from a single base-structure. All is base-generated in the position of a pronominal modifier. If all remains in-situ, it gets a non-quantificational reading. However, since it has inherent quantificational force, it may raise to an operator position within the noun phrase -Spec DP (following Reinhart 1987). In instances where all occurs sentence-initially, we showed that it has been extracted. In particular, we argued, that once the quantifier has raised to an operator position within the noun phrase, it can further raise to an operator position within the clause, at S-Structure. That is, Quantifier raising or Focus movement of the entire DP may take place, or the quantifier itself can raise, thereby stranding its range. We correlate the position of the quantifier in the sentence with its interpretation: distributive/set construal vs. collective/sum construal of its range. Finally, we discuss restrictions on the range of the quantifier in St' and on its co-occurrence with the topical object marker -tBli. These restrictions are derived from the requirement that the range of a quantifier be a topic since it represents the presupposition of existence induced by the quantifier. If, as argued here, all is a D-Quantifier, then these languages have 'essentially quantificational' noun phrases. This claim, in turn, has significant consequences for the debate on the universality of lexical categories and for the typology of languages with respect to how they express quantificational notions.
Appendix

Key to St'at'imcets (van Els) orthography

phonemic orthography

script

orthography phonemic orthography phonemic

script

Appendix

Key to Squamish orthography:

orthography phonemic orthography phonemic script

orthography script

orthography phonemic orthography phonemic script
### Key to Secwepemctsin orthography

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### Abbreviations used

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