Languages without Determiner Quantification

Author(s): Eloise Jelinek

Proceedings of the Nineteenth Annual Meeting of the Berkeley Linguistics Society: General Session and Parasession on Semantic Typology and Semantic Universals (1993), pp. 404-422

Please see “How to cite” in the online sidebar for full citation information.

Please contact BLS regarding any further use of this work. BLS retains copyright for both print and screen forms of the publication. BLS may be contacted via <http://linguistics.berkeley.edu/bls/>.

The Annual Proceedings of the Berkeley Linguistics Society is published online via [eLanguage](#), the Linguistic Society of America's digital publishing platform.

LANGUAGES WITHOUT DETERMINER QUANTIFICATION*

Eloise Jelinek
University of Arizona

This paper will focus on the syntax of quantification in Straits Salish, a Native American language of the Northwest Coast area. Straits Salish has no determiner quantifiers, no determiners that can be glossed *all*, *each*, *most*, *every*, *many*, *few*, etc.; number words cannot function as determiners, and the feature of definiteness/indefiniteness is not marked in the Determiner system. The language thus provides data that is of particular interest for the study of the morphological and syntactic devices used across languages for the expression of quantificational notions, and the implications of these findings for universal grammar. Quantification is expressed in two ways in Straits Salish syntax: in a small closed class of adverbs, and in certain open class lexical items. The goal of this paper is to identify the grammatical feature of Straits Salish and other languages that is responsible for the exclusion of Determiner quantification.

Determiners are constituents of Noun Phrases, which are generally understood to be maximal projections with a zero-level noun as lexical head. A persistent problem in the analysis of the Salish languages has been the question of whether there is a contrast between **noun** vs. **verb** at the lexical level in these languages. What I am going to argue here is that while there are word **roots** in Straits Salish that arguably may be termed 'nominal' and 'verbal' at the morphological level, this distinction does not have the expected consequences for the X-bar component of the grammar and the syntax; the syntactic behavior of all open class words is the same. It will be useful to call this syntactically defined class the **predicate**. All predicates have the same distribution in the syntax: they occur with a subject clitic to form a finite clause. A clause may occur with a Demonstrative to form a Determiner Phrase, an adjoined subordinate structure. These nominalized clauses differ from NPs generally in being excluded from argument positions, since they are adjuncts, adjoined subordinate structures. Thus, for Straits Salish we may say that every open class item is the lexical head of its own clause, whether a finite "main" clause or an adjoined subordinate clause. In sum:

- 1) There are no lexical classes whose maximal projections are NP or VP.

There are three subordinate clause types: Propositional, Subjunctive, and Relative clauses. The adjoined Relative clauses are of the "headless" or "internally headed" variety commonly seen in Native America (see Hale, 1973; Jelinek 1987).

Aside from the open class of predicates to which all inflectable words belong, the Straits Salish lexicon includes only a few closed class items:

2) Closed class elements

- a. Second position Inflectional Clitics (the Subject; Tense, Modality, and Mood)
- b. Determiner/Demonstrative pronouns (third person);
- c. Sentence particles (modals, discourse markers);
- d. Adverbs (largely quantificational);
- e. Conjunctions
- f. The Preposition

All closed class items are particles/clitics, with the single exception of adverbs, which constitute a closed class of words with a special syntax, to be described shortly. The list of closed classes is small, and each class contains relatively few members, when compared to languages with more familiar lexical inventories. For example, Straits Salish has a single preposition, which marks adjuncts oblique. For most Salish languages, the closed class elements can be easily listed on a single page. In the next section, I will focus on the Clitics and Demonstratives, since they are crucial to the noun/verb question; then I will return to the quantificational system and its implications.

1. Sentences: the Predicate and INFL. A major typological feature of the Salish languages is the presence of a "Second Position" clitic sequence in finite or "main" clauses, where various Inflectional categories such as Tense, Modality, Mood, and the Subject appear. This string is encliticized to a morphological word, which is the domain of a primary stress; the clitics are unstressed. Clitics are identified here with the equal sign.

- 3) a. čey=lə'=sən I worked.
work=PAST=1sNOM
- b. si'em=sə=sx^w You will be noble/a chief.
noble=FUTURE=2sNOM
- c. ɬčik^wəs=yəx^w=ɬ Evidently, we are tired.
tired-EVID-1pNOM

Any predicate may appear in this clause initial position. I assume a Pollock (1989) style raising analysis on which the predicate word is raised to adjoin the clitic string (see Jelinek, 1993). The clitic string is composed of the following elements:

4) The sentence operators

a. Tense clitics

=sə' Future

=lə' Past

b. Modal clitics

=yəq Optative

=yəx^w Evidential

=c'ə' Probability

=q Conditional

c. Mood

=ʔə Interrogative

5) The Subject pronouns

a. Nominative case

=sən 'I'

=sx^w 'you'

=t 'we'

=sx^whelə 'you pl.'

b. Absolutive case

NULL third person

There is an 'ergative split' in the language, whereby first and second person arguments are Nominative/Accusative, and third person arguments are Ergative/Absolutive. The Ergative is overt, and the Absolutive (Intransitive subject and Transitive patient) is phonologically null. As a result, an intransitive predicate appearing without a first or second person Nominative subject clitic is unambiguously interpreted as a finite sentence, with a **definite** third person Absolutive subject. This means that roots may never occur independently; the least that can be said is a clause.

6) a. ʒey=Ø

He/she/it/they work.

b. si'em=Ø

He (etc.) is a chief.

c. tʒik^wəs=Ø

He (etc.) is tired.

Internal structure of the predicate. Predicates contain a root plus any internal arguments. It is on the basis of internal arguments that the root classes 'noun' and 'verb' could be argued for. Transitive predicates include one of the set of transitivizing suffixes (TR) and an object suffix. Unlike the clitics, these object suffixes are phonologically integrated into the predicate word, and may receive the main word stress.

7) k^wəniŋ-t-δŋəs=sən

I helped you.

help-TR-1/2sACC=1sNOM

(A sentence with no overt Tense marking is often given a Past reading.) The set of object suffixes is:

- 8) a. Accusative
 -ŋəs 1sg or 2sg
 -ŋəɬ 1pl
- b. Absolutive
 Null 3 person

If no first or second person object is overtly marked after a Transitivity marker, a third person Absolutive object is again the default interpretation, as in (9a). The third person Ergative (transitive agent) is -s, as in (9b).

- 9) a. kʷəniŋ-t-θ=lə'=sən
 help-TR-3A=PST=1sNOM
 I helped him/her/it/them.
- b. kʷəniŋ-t-s=lə'=θ
 help-TR-3ERG=PST=3A
 He helped him.

The Ergative is morphologically an internal argument; it is a suffix (adjoined with a hyphen). Unlike a Nominative subject clitic, it precedes the Tense, Modality and Mood clitics. A predicate with an Ergative internal argument has an Absolutive external argument.¹

So far we have seen Accusative, Absolutive, and Ergative internal arguments. The fourth type of internal argument is the Possessive. If the Straits Salish root describes something that can be characterized grammatically as possessed, for example material objects, relations, feelings or experiences, a Possessive pronoun may be affixed. However, since all internal arguments are incorporated into the predicate word, the 'external' syntax of predicates with Possessive arguments does not differ from that of other predicates: they occur with the clitic string to produce a sentence that has the property of finiteness.

- 10) a. nə-ŋənə=sxʷ
 1sPOSS-child=2sNOM
 You are my child.
- b. nə-men=lə'=θ
 1sPOSS-father=PAST=3ABS
 It is my late father.

Ex. (11, 12) illustrate 'psych' predicates with a Possessive pronoun marking the Experiencer, while the subject is a second position clitic.

- 11) nə-sʰi'=sxʷ
 1sPOSS-value=2sNOM
 You are my dear/valued. (I like you.)
 [cf. s-ʰi'=θ It is dear/valuable.]
- 12) nə=sləl=θ kʷ ye'-ən
 1sPOSS=intent=3ABS DET go-1sSBD
 It is my intention to go.

Ex. (12) shows an adjoined Hypothetical clause, with Hypothetical subject marking; the subject clitics listed in (5) occur only in main clauses.

While transitive predicates may be sorted into subclasses with respect to their internal arguments, it is not at all clear that simple intransitive predicates can be usefully classified other than on semantic grounds. This problem was initially pointed out by Kuipers (1968). In sum, whatever the morphological or semantic features of the predicate may be, whatever internal argument structure it may have, its external syntax is the same: it combines directly with the clitic string in finite clauses.

Serial Predicates. These constructions contain more than one predicate word, forming a complex predicate. Compare Ex. (13, 14) with (15), containing a serial predicate.

13) 'əy=sx^w
good=2sNOM
You're good.

14) swəy'qə'=sx^w
male=2sNOM
You're a man.

15) 'əy=lə'=sx^w swəy'qə'
good=PAST=2sNOM male
You were a good man.

The second position clitic sequence follows the first word of the complex predicate in (15); it cannot appear after the second.²

16) * 'əy swəy'qə'=lə'=sx^w
good male =PAST=2sNOM

It is the initial predicate of the complex that undergoes raising, since raising is limited to a phonological word (Travis 1984). The second (unraised) predicate may be transitive, with an internal argument:

17) ən'e=lə'=sən leŋ-t-oŋəs
come=PAST=1sNOM see-TR-2sACC
I came to see you.

Evidence that the serial predicates form a constituent is provided by the fact that the lexical Passive takes scope over the entire complex.

18) ən'e=lə'=sx^w leŋ-t-ŋ
come=PAST=2sNOM see-TR-PASS
You were visited ('come-to-see'd').

In sum, predicates that appear in serial constructions describe qualities, material objects, or actions.

If Straits Salish had a copular verb, the syntactic behavior of some predicates would clearly be distinct from others: we would see "predicate nouns" and "predicate adjectives" occurring with an overt copula in at least *some* Tense/Aspect or person contexts. If we assume a copula that is phonologically NULL across all paradigms, a feature of INFL perhaps, then we have no way to constrain its distribution across predicate types. The generalization is:

- 19) All and only open class words are predicates.

So far we have seen only main clauses, composed of predicates containing internal arguments and occurring with subject clitics. These arguments are exclusively pronominal. Now let us consider the derivation and syntax of Determiner Phrases.

2. Determiner Phrases. We noted that in addition to main clauses, Straits Salish has various adjoined subordinate clause types: Propositional, Hypothetical, and Relative clauses. None of these clause types contains subject clitics or Mood markers, which are confined to main clauses.

Relative clauses are of the "headless" variety, comparable to a "free" relative. They are derived from any predicate by a Demonstrative/Determiner which functions as an iota operator in binding one of the arguments of the relativized predicate, producing a referring expression. Compare the following:

- 20) a. $le\eta-t-o\eta\acute{s}=sx^w$ Finite transitive clause
 see-TR-1/2sACC=2sNOM
 You saw me.
- b. $c\acute{a} le\eta-t-\acute{a}x^w$ Patient-headed relative
 DET see-TR-2SUBORD
 the (one that) you saw
- c. $c\acute{a} le\eta-t-o\eta\acute{s}$ Agent-headed relative
 DET see-TR-1/2ACC
 the (one that) saw you/me

Relatives based on intransitives are Subject-headed:

In the following example, the Determiner Phrase follows the predicate of the subordinate Propositional clause, yet it is coindexed with the third person subject in both clauses.

- 27) q'əq'enə́t=θ 'aɫ ʒ-ʒət-ŋ-s cə 'əs'eləx^w
 slow=3ABS CONJ SBD-walk-MIDDLE-3POSS DET old man
 He is slow when he walks, the old man.
 (*He is slow when the old man walks.)

I take this as evidence that the Determiner Phrase in (27) is an adjunct in an A-bar position. Baker (1992) argues that nominals in Mohawk are adjuncts, on the basis of the absence of expected subject/object asymmetries. Adjuncts in Salish are set off with an "afterthought" intonation contour; the typical sentence has one at most. Transitive sentences with two adjoined nominals are marginal, and it has been claimed by some Salishanists that they probably represent English language contact (Kinkade 1983). Where a transitive with two nominals is elicited, their order is not significant.

- 28) ?? k^wəniŋ-t-s=θ sə sɫəniy' cə swəy'qə'
 help-TR-3ERG=3ABS DET female DET male
 The woman helped the man.
 Or: The man helped the woman.

When two adjuncts are present, the preferred construction is the Passive, where one adjunct is Oblique. Order of the direct and oblique adjuncts is free.

- 29) k^wəniŋ-t-ŋ=θ 'ə sə sɫəniy' cə swəy'qə'
 help-TR-PASS=3ABS PREP DET female DET male
 The man was helped by the woman.

The oblique marker 'ə occurs before any adjunct not coindexed with a direct argument of the predicate. This includes various directional and locative expressions as well as the optional passive 'by' phrases. The preposition cannot take a pronominal object suffix; these suffixes only occur internal to open class predicates. Oblique Determiner Phrases, like direct Determiner Phrases, cannot serve as predicates.

30) a. ʒey=sən 'ə cə 'eləŋ
work=1sNOM P DET house
I work at, in the house. | b. *'ə cə 'eləŋ=sən
P DET house=1sNOM
[I am at, in the house] |
|--|---|

Ex. (30b) is ungrammatical because it contains no predicate except the one bound by a Determiner. We may conclude that the semantic feature of

Hypothetical clauses. Hypothetical clauses provide important additional evidence on the uniform syntax of predicates. Whatever their semantic or morphological features, all predicates share the same syntax in subordinate clauses, just as they do in main clauses. In Hypotheticals, third person subjects are overt.

- The uniformity of subject marking across predicate type in subordinate clauses is important evidence that it is not just the presence of the main clause Inflectional clitic sequence that produces the uniformity of syntax for all the predicate subclasses.

32) a. s-t-eniy'=Ø She is a woman.
 s-t-ən-t-eniy'=Ø' They are women.

b. sə s-t-eniy' the (one who is a) woman
 sə s-t-ən-t-eniy' the (ones who are) women

- 33) a. $\eta\partial q-\eta=\partial$ He is diving.
 $\eta\partial q-\eta\partial q-\eta=\partial$ He is diving repeatedly.
- b. $c\partial \eta\partial q-\eta$ the (one who) dives
 $c\partial \eta\partial q-\eta\partial q-\eta$ the (one who) dives repeatedly,
or the (ones who) dive (repeatedly)

Tense is marked in both main and subordinate clauses.

- 34) a. cə swəy'qə=lə'
 DET man=PAST
 the late (deceased) man
- b. cə ʒey=sə'
 DET work=FUTURE
 the one who will work

Proper names require Determiners and take affixes.

- 35) a. teʒəl=Ø' cə Tim
 arrive=3ABS DET Tim
 Tim arrived.
- b. xʷi'elqən=Ø' cə Kennedy
 return=3ABS DET Kennedy
 Kennedy came back.
- c. ʒte-t-ŋ=sən kʷ s-Lena-s
 ask-TR-PASS=1sNOM DET SBD-Lena-3SBD
 I was asked if it was Lena.

In sum: all predicates, whatever their lexical features or internal argument structure, have the same "external" syntax.

3. Quantification in Straits Salish. Bach, Kratzer and Partee (1987) identify a typological contrast across languages in the distribution of elements marking Determiner vs. Adverbial Quantification. The Straits Salish Determiner system consists only of demonstrative pronouns that mark contrasts in relative distance, gender, visibility, and the like; however, they do not mark the following quantificational features:

- 36) a. Definite vs. indefinite
 b. Singular vs. plural
 c. Count vs. mass
 d. Cardinality expressions (numbers, **many**, **few**,...)
 e. Strong quantifiers (**each**, **every**, **most**, **all**...)

The default interpretation of Determiner Phrases is definite; indefinite interpretations are permitted in some contexts, to be reviewed below.

Straits Salish has unselective adverbial quantification, as identified by Lewis (1975), and some sentence particles and clitics that express modal notions. Work in progress on quantification in natural language suggests that while all languages have A-Quantification, only some languages have D-Quantification.

The adverbial quantifiers. Salish has a small closed class of second-order predicates, the unselective adverbial quantifiers. The most common of these

is perhaps *mək'w*, which can be glossed 'all, completely'.³

37) <i>mək'w</i> =t 'əw' ye'
ALL-1pNOM LINK go
We all went. | 38) <i>mək'w</i> =sx ^w 'əw' ŋa-t-θ
ALL-2sNOM LINK eat-TR-3ABS
You ate them all.
Or: You ate it all up (completely). |
|---|---|

In (37), the adverbial has scope over the subject; in (38), over the predicate, either the event or the internal argument. Adverbial quantifiers only occur linked to another predicate, over which they have scope, by the LINK particle 'əw'. As with serial predicates, the first word of the resulting complex predicate raises to adjoin the clitic string. The Adverbial cannot be the single predicate in a clause.

- 39) **mək'w*=t
ALL=1pINOM
[we are all]

Ex. (40) could be used in speaking of a bunch of flowers that all a) have the same color, or b) are not parti-colored. The adverbial quantifier may have scope over either the predicate ('how much' -- the extent or degree of saturation of the color) or over the subject ('how many').

- 40) *mək'w*=θ 'əw' p'əq cə sp'eqəŋ
all=3ABS LINK white DET sprout
They are all/completely white, the flowers.

Another example of an unselective adverbial quantifier is provided by *ʔe'* 'again, also'. In the two glosses given for Ex. (43), the adverbial takes scope over either the subject or the predicate.

- 41) *ʔe'*-sən 'əw' ye'
again/also-1sgNOM LINK go.
I'll go again/I also will go. [additionally]

In addition to *mək'w* and *ʔe'*, the following adverbial quantifiers have been recorded in Straits Salish.

42) a. yas always	b. 'ən'an very/too much
c. ʔələl almost	d. x ^w əw'e never; not yet

Additional example sentences:

- 43) a. yas-sən 'əw' ye'
 always-1sgNOM LINK go
 I always go.
- b. 'ən'an=θ' 'əw' 'əy cə s'itən
 very LINK=3ABS good DET food
 The food is very good.

"Strong" vs. "Weak" Quantifiers. Milsark (1977) distinguishes between two types of quantifiers: the strong quantifiers include items like *all*, *each*, *most* and *every*, while the weak quantifiers include cardinality expressions such as numerals, and words like *many* and *few*. This major division within the domain of quantifiers has a number of syntactic reflexes across languages. For example, strong quantifiers cannot occur in existential contexts, while weak quantifiers can:

- 44) a. *There are all (each, most) men in the boat.
 b. There are many (few, seven) men in the boat.

The examples in (44) show that in English, both strong and weak quantifiers appear in D-Quantification, but the strong quantifiers are excluded from existential contexts. In Salish, the contrast between strong and weak quantifiers is marked in the syntax as follows:

- 45) a. Strong quantifiers are adverbials.
 b. Weak quantifiers are predicates.

In Ex. (37, 38) above we saw strong quantifiers as unselective adverbials, connected to a main predicate via a LINK particle. Weak quantifiers are 'main' predicates, serving as the single predicate in a clause.

- 46) ɣən'=θ cə sʃeenəx^w
 big/many=3ABS DET fish
 They are many, the fish.

Existential Constructions. There are affirmative and negative existential predicates. The affirmative existential is also a locative predicate, as is commonly seen across languages.

- 47) a. ni'=θ cə sʃeenəx^w
 exist=3ABS DET fish
 There's (the) fish.
- b. ni'=ə=lə'=θ
 exist=Q=PAST=3ABS
 Were there any?
- 48) 'əwənə=yəx^w=θ cə sʃeenəx^w
 not:exist=EVID=3ABS DET fish
 Apparently there's no fish.

Existential contexts exclude strong quantifiers.

49) ni'=Ø cə ɲən' s'əʔtənəŋ'
exist=3ABS DET big/many berry.
There are [the] many berries. (Weak Quantifier)

50) * ni'=Ø cə mək^w s'əʔtənəŋ'
exist=3ABS DET all berry
[* There are [the] all berries] (Strong Quantifier)

Evidence from Hypothetical and Propositional clauses. In these subordinate clauses, cardinality and existential predicates, like all other predicates, show overt subject marking.

51) ʕte-t-ŋ=sən k^wə ɲən'-əs
ask-TR-PASS=1sNOM DET many-3SBD
I was asked if there were many.

52) ʕte-t-ŋ=sən k^wə ni'-əs
DET exist-3SBD
I was asked if there were any.

53) ʕte-t-ŋ=sən k^wə 'əwənə-əs
DET not:exist-3SBD
I was asked if there weren't any.

In (54), the negative existential quantifier appears in an adjoined Propositional subordinate clause, where it is inflected for second person Possessor subject.

54) 'əsk^wəy=Ø k^wə staŋ-ʔ k^wə 'ən-s-'əwənə
IMPOSS=3ABS DET do:what-1pl DET-2sPOSS-SBD-NEG:exist
It's impossible, that we do something, [if] you don't exist. (We can't do anything without you.)

Type-shifting in predicates (Partee 1987). There are a few open class predicates that may also be used as Adverbial quantifiers, with the LINK particle.

55) a. si'it=Ø b. si'it=sən 'əw' ʔɕik^wəs
true=3ABS true=1sNOM LINK tired
It's true. I'm really tired.

Other predicates that may be type-shifted in this fashion are ɲən' 'big', ʕeyn

'straight', and *hay* 'finish'.

56) a. *hay*=Ø

finish=3ABS

It's finished.

b. *hay*=sən 'əw' ʕ-tələ

finish=1sgNOMLK REL-money

1. I have all the money.

2. Only I have money.

Negation. Type-shifting appears also with Negation. The Negative predicate 'əwə can appear either as an Adverbial (Ex. 57), or as a simple intransitive (Ex. 58, in a main clause serial predicate).

57) 'əwə=sən s-əw'-ye'

NEG-1sNOM IRREALIS-LINK-go

I'm not going/I refuse to go.

58) 'əw'=sx^w q^wəq^wəl 'ət 'itən-əx^w

NEG=2sNOM speak CONJ eat-2sSBD

You don't talk while you eat.

Lowering. The universal quantifier can be transitivized, as can most (if not all) other Straits Salish predicates. When transitivized, it is necessarily no longer an Adverbial, and has the meaning 'take completely'.

59) mək^w-t-θ=yəq=sx^w

all-TR-3ABS=OPT=2sNOM

Wish you would take them all/finish them off.

This transitive predicate may appear in a Determiner Phrase.

60) cə mək^w-t-θ-əx^w

DET all-TR-3ABS-2sSBD

the (ones) you took all (of)/'totalled'

Wh-words. Wh-words across languages share a number of properties with quantifiers. In Salish, Wh-words, like cardinality expressions, are predicates. Wh-words occur with the clitic string.

61) a. *wet*=sx^w

who=2sNOM

Who are you?

b. *wet*=Ø cə swi'qoaɬ

who=3ABS DET young man

Who is he, the young man?

Like all other predicates, Wh-words have overt third person subjects in Hypothetical clauses.

63) ʕte-t-ŋ=sən kʷə steŋ-əs
ask-TRANS-PASS=lsgNOM DET what-3SBD
I was asked what it was.

64) ʕte-t-ŋ=sən kʷə wet-əs
DET who-3SBD
I was asked who it was.

65) ʕte-t-ŋ=sən kʷə 'əxin-əs
DET where-3SBD
I was asked where it/he was.

In Straits Salish, Wh-predicates do not occupy argument positions, and there is no Wh-movement in the syntax. Wh-words are predicates that take external arguments.

Definites and Generics. Bittner and Hale, in press, show that Warlpiri nominals are open in interpretation as to definiteness. Salish Determiner Phrase may be open to both definite and generic readings.

66) 'əwə=θ s-əw' t'iləm cə sʕeenəxʷ
NEG=3ABS IRR-LINK sing DET fish
The fish didn't sing. (Definite)
OR: Fish don't sing. (Generic)

Across languages, generics are often plural or mass nouns, but plurality is optionally marked in Salish, count/mass is not marked, and temporal reference can be left open. When the sentence is given a generic reading, the generic operator binds a variable in both the main clause and Determiner Phrase. When the DET P has a definite reading, there is coindexing between pronouns across the clauses.

Indefinites. A number of syntactic devices are employed in Straits Salish to provide indefinite readings. In Possessive ("have") sentences we see an incorporated Relational prefix that derives a possessive sentence from a predicate. Consider the following contrast:

67) a. s+eniy'=sxʷ female=2sNOM You are a woman	b. ʕ-s+eniy'=sxʷ REL-female=2sNOM You have a wife/woman.
---	--

Indefinite arguments also may be required in intensional contexts, in Desideratives, for example.

- 68) snəx^wəʔ-ʔelɲən=sən
 canoe-DESIDERATIVE-1sNOM
 I want a canoe/to make a canoe.

There is another predicate that is used to express a desire for some definite entity, 'to want something that you can see'.

- 69) sitəŋ-θ=sən cə snəx^wəʔ
 desire-3ABS=1sNOM DET canoe
 I want (covet) the canoe.

The principal means for expressing indefiniteness is with the simple intransitive 'main' predicate.

- 70) si'em'=θ cə nə-men
 noble=3ABS DET 1sPOSS-father
 My father is noble/a chief.

4. Concluding remarks. A summary on Salish syntax:

- 71) a. All open class words (i.e., neither particles nor adverbs) are predicates.
 b. The 'external' syntax of all Predicates, whatever their internal structure and lexical features, is identical in all clause types.
 c. Determiner Phrases are adjuncts that permit both definite and indefinite interpretations.

A summary on quantification in Straits Salish:

- 72) a. Straits Salish lacks Determiner quantification. Determiners are exclusively demonstrative pronouns.
 b. The Weak quantifiers (the cardinality expressions) are 'main' predicates, as are Wh-words and existential expressions.
 c. The Strong quantifiers are unselective Adverbials. There is some type-shifting between first and second order predicates.

I attribute the absence of D-Quantification in Straits Salish to the fact that Determiner Phrases are in A-bar positions in these languages. While Adverbial quantification is unselective, Determiner quantification is not; the function of Determiner Quantification is to fix the scope of the quantifier to an NP in a particular argument position. In a tripartite quantificational structure of the kind developed by Kamp (1981), Heim (1982), a noun may form the restrictor clause of a quantifier.

- 73) All_x fish(x) swim(x)
 Q Restrictor Nuclear scope

Where there are no lexical items in argument positions, determiner quantification is necessarily excluded. Straits Salish has the typological feature

74) [+ Pronominal Arguments]

In languages with this feature, only incorporated pronouns occupy argument positions. These pronouns are exclusively definite and presuppositional. When an adjoined DET P receives an indefinite interpretation, it is linked via predication to an Absolutive pronoun in the main clause. On a definite reading, a DET P is topic-like in function. Since Determiner Phrases are in A-bar positions, they cannot include D-Quantifiers, whose function is to fix the scope of the quantifier to a particular argument position. Across languages, we do not see D-quantifiers in NPs in topic or 'afterthought' positions.

- 75) * Every/no fish, it swam.
 * They swam, most/few fish.

It has been argued for other languages that nominals are confined to A-bar positions: Navajo (Jelinek, 1984, 1988; Willie 1990, 1991; Faltz, in press); Warlpiri (Jelinek 1984); Mohawk (Baker 1992, in press), and Asurini do Trocara (Vieira, in press). These languages also lack Determiner Quantification. Except for Asurini, they have not been claimed to lack a noun/verb contrast. It is the fact that nominals are adjuncts in these languages that excludes Determiner Quantification; it also provides for, but does not require, the kind of predicate syntax we see in Straits Salish.

NOTES

*Some parts of the material presented here are included in a larger study of quantification in Straits Salish, to appear in a volume titled Quantification in Natural Languages, edited by Emmon Bach, Eloise Jelinek, Angelika Kratzer, and Barbara Partee (in press). I am grateful to the late Al Charles and Victor Underwood, and to Lena Daniels and Agatha McCluskey, for instructing me in Salish. I thank Richard Demers for introducing me to Salish, and for endless hours of fruitful discussion of these questions. I thank the following for their comments: Mark Baker, Andrew Barss, Maria Bittner, Molly Diesing, Donna Gerdts, Ken Hale, Ed Keenan, Dale Kinkade, Aert Kuipers, Tim Montler, Marcia Damaso Vieira, and Mary Willie. I am especially grateful to Emmon Bach, Angelika Kratzer, and Barbara Partee, for their generous help. None of these is responsible for my errors.

¹ The ergative split and person hierarchy in Straits Salish prevents the third person Ergative from appearing with the first or second person Accusative. Ergative and Accusative are both internal arguments, and thus cannot cooccur.

² Emmon Bach (p.c.) points out that this distribution of external vs. internal arguments was first documented for the Northwest area by Boas (1947) in his Kwakiutl Grammar, p. 283.

³ Gerdts (1988) shows that the quantifier *mək'w* in Halkomelem has absolutive scope. In Straits Salish it may have scope also over a subject, on a collective reading (Jelinek in press).

REFERENCES

- Bach, Emmon, Angelika Kratzer and Barbara Partee. 1987. Quantification, A Cross-Linguistic Perspective. Ms, UMass Amherst.
- Bach, Emmon, Eloise Jelinek, Angelika Kratzer and Barbara Partee, eds., in press. Quantification in Natural Languages: Kluwer.
- Boas, F. 1947. Kwakiutl Grammar. Transactions of the American Philosophical Society 37(3):201-337.
- Baker, Mark. 1991. On Some Subject/Object Non-Asymmetries in Mohawk. NLLT 9.4:537-576.
- Baker, Mark. On the Absence of Certain Quantifiers in Mohawk. In Bach, et al, in press.
- Bittner, Maria and Ken Hale. Remarks on Definiteness in Warlpiri. In Bach et al, in press.
- Faltz, Aryeh. Towards a Typology of Natural Logic. In Bach et al, in press.
- Gerdts, Donna. 1988. Object and Absolutive in Halkomelem Salish. Garland Press.
- Hale, Ken. 1973. The Adjoined Relative Clause in Australia. In R. M. W. Dixon, ed., Grammatical Categories in Australian Languages, Humanities Press, New Jersey.
- Heim, I. R. 1982. The Semantics of Definite and Indefinite Noun Phrases. UMass Dissertation, Amherst, MA.
- Jelinek, Eloise. 1984. Empty Categories, Case, and Configurationality. NLLT 2.39-76.
- Jelinek, Eloise. 1987. Headless Relatives and Pronominal Arguments: A Typological Perspective. In Paul Kroeber and R. E. Moore, eds., Native American Languages and Grammatical Typology, IULC, Bloomington. Papers from a CLS Parasession.
- Jelinek, Eloise. 1993. Ergativity and argument type. MIT Working Papers in Linguistics, Vol. 18, Jonathan Bobaljik and Colin Phillips, eds.
- Jelinek, Eloise. Quantification in Straits Salish. In Bach et al, in press.

- Jelinek, E. and Richard Demers. 1982. Adjoined Clauses in Lummi. Papers from the 17th International Conference on Salish and Neighboring Languages, Portland, Oregon.
- Kamp, H. 1981. A Theory of Truth and Semantic Representation, reprinted in J. Groenendijk, T. Jansen, and M. Stokhof, eds. (1984), *Truth, Interpretation and Information*, GRASS 2, Foris, Dordrecht.
- Kinkade, M. Dale. 1983. Salish Evidence Against the Universality of 'Noun' and 'Verb'. *LINGUA* 60.25-40.
- Kuipers, Aert. 1968. The Categories Verb-Noun and Transitive-Intransitive in English and Squamish. *LINGUA* 21:610-626.
- Lewis, David. 1975. Adverbs of Quantification. In E. L. Keenan, ed., *Formal Semantics of Natural Language*, Cambridge University Press.
- Marantz, A. P. 1981. On the Nature of Grammatical Relations. MIT dissertation, Cambridge, MA.
- Milsark, Gary. 1977. Toward an Explanation of Certain Peculiarities of the Existential Construction of English. *LINGUISTIC ANALYSIS* 3, 1-29.
- Montler, Timothy. 1986. An Outline of the Phonology and Morphology of Saanich, North Straits Salish. University of Montana Occasional Papers in Linguistics. Missoula.
- Partee, Barbara. 1987. Noun Phrase Interpretation and Type-Shifting Principles. In Groenendijk, J., D. de Jongh, and M. Stokhof, eds., *Studies in Discourse Representation and the Theory of Generalized Quantifiers*, GRASS 8, Foris, Dordrecht.
- Pollock, J.-Y. 1989. Verb Movement, Universal Grammar and the Structure of IP. *LI* 20:365-424.
- Travis, Lisa. 1984. Parameters and Effects of Word Order Variation. MIT dissertation, Cambridge.
- Vieira, Marcia Damaso. The Expression of Quantificational Notions in Asurini do Trocara. In Bach et al., in press.
- Willie, Mary. 1990. There is Nothing Missing in a Navajo Relative Clause. In K. Rice and E.-D. Cook, eds., *Studies in Athapaskan Linguistics*. Mouton.
- Willie, Mary. 1991. Navajo Pronouns and Obviation. University of Arizona dissertation, Tucson.