FOOTNOTES

1. "Warm Springs Sahaptin Verse Analysis." The same paper was presented at a session on Native American Literature organized by Jerrold Ramsey at the Modern Language Association Annual meeting in New York City, December 28, 1981.An expanded version to include sunsequent research was presented under the same title at the "Workshop on Native American Discourse" in Austin, Texas, April 9-11, 1982. This workshop was organized by Joel Sherzer and Anthony Woodbury.

2. I am indebted to the members of that class for their hard work, rich data, keen insights and continual intellectual stimulation as we worked together discovering the linguistic features used by the people whose stories and other verbal performances they had recorded. Special thanks go to Charlotte Ross, Doug DeNatale, Susan Vorscheimer and Pter Lowry whose data are either cited or specifically referred to in this paper.The contributions of Mario Montano and Charlene Poirier whose respective work on Mexican Spanish and French Canadian narratives added a dimension to our work, and of Bonnie Blair, Pat Amos and Maggie Craig are all gratefully acknowledged as is that of the unnamed friend from New Jersey whose story is quoted.

3. Charlotte Ross generously shared recordings of her own and Cratis Williams' tellings of Muttsmag with our class. As was true for me in Sahaptin, working with a highly organized traditional narrative more easily gave understanding of the rhetorical patterns which one then finds used also in other oral genres.The arrangement of its lines cited here was arrived at jointly during an informal seminar during the spring term.

4. Charlotte Ross ms, op.cit.

5. Susan Vorscheimer ms.

6. From a transcription made by a family member.

7. Douglas DeNatale, personal communication.

8. They say, " Ii, púi au ixáaxitša auku." 'Yes, snow is falling, now then.' The usual way to speak of falling snow is to use the verb to snow, twanána-. Púi refers to snow on the ground. Of course, it is the fallen snow that threatens the people with starvation, keeping the hunters from catching deer. Perhaps púi is well chosen here.

9. Though both Bullhead and Crayfish are introduced in this verse it is the second, Crayfish, who is subject of an SV sentence.In conjoined nouns it is the second that takes the suffix showing they are a pair, and all other suffixes.

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Adjoined Clauses in Lummi

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Important treatments of clause types in the Salish language, with particular reference to questions of subordination and adjunction, have appeared in recent work.[1] In "Complex Expressions in Bella Coola" (1981, MS.), Davis and Saunders claim that Bella Coola lacks embedding as a grammatical process, having only adjoined clauses of the type Hale (1976) has identified as very common in Australian languages. Davis and Saunders suggest that since clausal adjunction is a prominent feature of Bella Coola as well as of certain Australian languages, that it is "not an areal phenomenon, but represents a more broadly distributed language type" (p. 10). Thompson and Thompson, in their recent comprehensive grammar of the Thompson language (1981, MS.) review the processes of subordination in Thompson, and observe:

> Vagueness of subordinations. It is important to note that these subordinating devices in Thompson do not correspond directly to particular types of English subordination. For example, it seems impossible to identify a particular Thompson structure that would meaningfully be designated a relative clause. (pp. 330-331.)

And on sentence types:

> The opposition of subordination and coordination is less sharply drawn in Thompson than, for example, in English. Above the clause level most elements are probably best considered in coordinate relationship. From the English point of view, some of the clause particles discussed above (36.3) seem to introduce now an independent, now

a dependent clause. These distinctions appear to have little meaning for Thompson sentence structure. (p. 340).

Our purpose here is to define clause types in another Salish language, Lummi, in order to show that Lummi also has no embedded clauses, thus supporting the claims of Davis and Saunders on Bella Coola. It is frequently the case in the study of a language that problems of analysis are intertwined to such an extent that solutions to certain problems depend upon the solutions to others. That is, it often happens that a particular proposal has analytical consequences for the treatment of other problems in the language. We present in this paper an analysis of adjoined clauses in Lummi that bears on the following topics: the question of a fundamental noun/verb distinction in Lummi; the syntactic function of the "articles" or determiners; and the question of the clausal status of nominal adjuncts. We propose that the absence of embedding as a grammatical device in Lummi shows that Lummi is an extreme or "perfect" non-configurational language (Hale, 1982). In Australia, according to Hale (1976, p. 78), clausal adjunction has the "principal responsibility for productive recursion in syntax". In Lummi, adjunction is the only source of recursion. Finally, we survey the kinds of syntactic structures that Lummi employs to do the work that embedding does in other languages; in particular, to build sentences "about" sentences. This will enable us to give a unified functional account of a variety of features of Salish syntax that seem unrelated at first glance.

1. Adjoined vs. embedded clauses: defining features. Subordinate clauses may be either adjoined to or embedded within main clauses in contrast to conjoined or coordinate clauses, which are of equal syntactic rank. Informally, embedded clauses are constituents of matrix clauses, while adjoined clauses are merely dependent upon main clauses. Some matrix clauses are syntactically incomplete without the embedded clause, which constitutes a direct argument to the matrix predicate.

(1)   a. [For Tom to be late] annoys me.

       b. I believe [that Tom is late.]

There are other complex sentences where the main clause is a syntactically complete sentence; that is, the predicate lacks neither a subject nor an object without the subordinate clause. In one construction of this type, the subordinate clause is an oblique argument to the predicate of the main clause.

(2) I spoke to Tom (,) about his being late.

Across languages, oblique clausal arguments are often nominalized forms with possessive affixes marking person subject, as shown in (2). In this example, (,) indicates an optional pause that shows the syntactic marginality of these oblique clausal arguments. Clauses that are direct arguments to the predicate of the matrix clause, as in (1), are not separated from the matrix clause by a pause in normal style.

In the case of relative clauses, the main clause is syntactically complete without the relative clause, which is in itself neither a direct nor an oblique argument to the main clause

predicate, but constitutes only a part of some argument. The question then is whether the relative clause is syntactically and phonologically integrated into the main clause (embedded) or merely paratactically attached (adjoined) to it. Compare the following:

(3)   a. The man who was late annoyed me.
          (Restrictive; embedded)

       b. I was annoyed by the man, who was late.
          (Non-restrictive; adjoined)

       c. I was annoyed by the man who was late.
          (Either; ambiguous)

       d. The man, who was late, annoyed me.
          (Non-restrictive; adjoined)

Non-restrictive relative clauses are not syntactically integrated into the main clause; when sentence medial, they may be said to be parenthetically inserted, and are set off by prosodic features.

An example of an adjoined relative clause in Walbiri (Hale, 1976, p. 76) is as follows:

(4) ŋatjulu-ḷu Ø-ṇa yankiri pantu-ṇu, kutja-lpa ṇapa ṇa-ṇu.

     (I-erg AUX emu spear-past, COMP-AUX water drink-past)

     'I speared the emu which was/while it was drinking water.'

This Walbiri sentence is parallel to certain constructions in English which Chomsky (1964) has identified as structurally ambiguous.

(5)   a. We saw the boy eating the ice cream cone.

       b. We saw the boy who was eating the ice cream cone.

       c. We saw the boy while he was eating the ice cream cone.

Chomsky views (5a) as ambiguous between the readings shown in (5b) and (5c) because (5a) may be derived from either (5b) or (5c); that is, either (5b) or (5c) is the underlying form for (5a). Hale's position is that there is no justification for either derivation in the Australian sentence, where the adjoined clause is simply undifferentiated between temporal and (non-restrictive) relative clause interpretations. Hale observes also that whereas clauses that are temporally related need have no co-referential elements, this is not the case with adjoined relative clauses:

(6) a. I speared the kangaroo, while John slept.
        (temporal)

    b. I speared the kangaroo, which was/while it was
       drinking water.
       (temporal or relative)

This co-referentiality of elements in main and subordinate clauses is a crucial feature of relative clauses, whether they are adjoined or embedded. Because of this co-referentiality, there is redundancy, and the co-referent term may be omitted. This deletion of co-referent terms may lead to ambiguity:

(7) a. I saw him, out walking.

    b. I saw him while he was out walking.

    c. I saw him while I was out walking.

This kind of ambiguity would not occur in Lummi, where the adjoined clause is a nominalization that is obligatorily marked for person subject by a possessive affix:

(8) leŋ-nəxʷ-sən kʷ s-šət-ŋ- s   I saw him when he was
     1   2   3 4 5 6 7 8   walking.

    1 - see   4 - complementizer   7 - medio-passive
    2 - trans.   5 - derivational   8 - 3rd poss.
    3 - 1st pers.   6 - walk

(9) leŋ-nəxʷ-sən kʷ nə-š-šət-ŋ   I saw him when I was
     1   2   3 4 5 6 7 8   walking.

    1 - see   4 - comp.   7 - walk
    2 - trans.   5 - 1st poss.   8 - medio-passive
    3 - 1st person   6 - derivational

One difference between adjoined and embedded clauses noted by Hale is phonological. In Walbiri, as in English, adjoined clauses may be sentence initial:

(10) While it was drinking water, I speared the kangaroo.
Hale points out that sentence initial adjoined clauses have prosodic features which separate them from the main clause; but if the adjoined clause is sentence final, the intonational features may be absent. Therefore, while pause and intonational features can prove that a clause is adjoined, they cannot prove that it is embedded, since some adjoined clauses have the same prosodic features as embedded ones.

A second difference between adjoined and embedded relative clauses is syntactic: embedded clauses are syntactically integrated into the main clause. Hale views a Walbiri clause that is preceded and followed by other elements of the main clause as embedded, whereas a clause that precedes or follows the main clause may be only adjoined.

Another syntactic difference between embedded and adjoined clauses identified by Hale is as follows: embedded clauses in the Australian languages he is concerned with are non-finite (that is, lack an AUX constituent) whereas adjoined clauses may or may not have AUX (be finite). Here again, only negative evidence can

be adduced; if a clause in these Australian languages has AUX, it is not embedded. But other languages, for example English, have finite embedded clauses:

(11) I don't believe [that Tom has left.]
         AUX   AUX

In Lummi, as we will show, all subordinate clauses lack an AUX constituent. Therefore, the absence of AUX cannot be taken as evidence that a clause is an embedded subordinate clause, as opposed to an adjoined subordinate clause, as is the case in Walbiri.

The third kind of difference between adjoined and embedded clauses noted by Hale is semantic. Hale proposes that while certain clauses may be syntactically adjoined, they are semantically embedded, and that it is a grammatical imbalance of this kind that has led in some cases to historical change in a language family whereby embedded clauses develop from adjoined ones. Givón (1981) has proposed a similar historical change in Hebrew and other languages. We assume that what Hale means by a "semantically embedded" relative clause is a restrictive relative clause; consider example (3) above, repeated here for convenience:

(3) b. I was annoyed by the man, who was late.
        (Non-restrictive)

    c. I was annoyed by the man who was late.
        (Ambiguous)

A clause that is set off by prosodic features is non-restrictive. But a clause that is not set off by prosodic features may be ambiguous as to its restrictiveness. Therefore, the fact that a

relative clause is restrictive or semantically embedded cannot be adduced as proof of syntactic embedding. Embeddedness can only be ruled out on phonological and syntactic grounds.

The defining features of embedded clauses may be summarized as follows:

(12) Clauses that constitute direct arguments to the predicate of another clause are embedded, since the matrix clause is syntactically incomplete without them.

(13) Clauses that constitute oblique arguments, clauses that constitute part of an argument (relative clauses), or clauses that adverbially modify the predicate of another clause are not embedded if they are not phonologically and syntactically integrated into the main clause.

Adjoined clauses in Walbiri are not embedded by virtue of (13).

In the next section, we will present evidence showing that in Lummi a) there are no clause types that are direct arguments to the predicates of other clauses, and b) there are no subordinate clause types that may not be optionally set off by a pause and other prosodic features. We conclude that Lummi lacks embedding as a grammatical process.

2. Clause types in Lummi: predicates and arguments. Each clause type in Lummi may be defined by a particular set of particles that appear with predicates in that clause type. In the following sections, we will identify the particles that are specific to each clause type. We will begin our survey with main clauses.

2.1. Main clauses: AUX. Main clauses in Lummi are imperative or indicative: it is the latter we will be concerned with here. Indicative clauses are composed of the Predicate-AUX complex. The inventory of AUX in Lummi is as follows:

(14) The set of clitics that mark person-subject, and render
a clause indicative (finite):

-sɔn 1 pers. sg.   -ɬ 1 pers. pl.
-sxʷ 2 pers. (sg. or pl.)
-∅   3 pers. (sg. or pl.)

(15) The interrogative particle that occurs only in clauses
with the person-marking clitics given in (14):

-ə- interrogative

The predicate states some attribute that applies to some individual;

elements appearing in AUX identify that individual by clitics that

mark person-subject. In Lummi, this set of person markers appears

only in main clauses, and marks the clause as indicative or finite.

That is, the speaker may use such a clause to make an assertion;

the clause is declarative in mood. Another AUX particle differen-

tiates (yes/no) interrogative sentences.

The -s which appears on third person transitive predicates is

an ergative suffix.

(16) x̌či-t-s cə swəy?qə?   "He knows the man"
      1 2 3 4   5

1 - know   4 - deter.
2 - trans. 5 - man
3 - erg.

This ergative suffix is not an AUX particle since it does not occur

in the same position as the person markers given in (14). Compare:

(17) a. x̌či-t-ə-sxʷ   "Do you know it?"

     b. x̌či-t-s-ə   "Does he know it?"

The suffixes that mark tense/aspect in Lummi sometimes appear

in the AUX constituent, but they also occur elsewhere:

(18) ye?-lə-sən   "I went"   1 - go
      1   2   3   2 - past
                                   3 - 1st pers.

(19) kʷ nə-ten-lə   "my late mother"
     1 2   3 4

1 - det   3 - mother
2 - 1st poss. 4 - past

(20) ye?-sə-sxʷ   "You will go"
      1   2   3

1 - go
2 - future
3 - 2nd person

(21) kʷ s?əɬtán-ŋ-sə   "the (unrealized) berries"
                           (we are looking for)

Therefore, we conclude that these tense/aspect particles are not

AUX elements. The distribution of these particles is comparable to

that of the negative particle in English, which may appear in the

AUX constituent of the sentence, where it attaches to some AUX

element, or may appear elsewhere:

(22) I can't go.
         AUX

(23) Not everyone can go.
                    AUX

In labeling the constituent of a sentence that renders it

finite AUX, we follow the usage originated by Hale (1973) when he

applied the term to a second position constituent of Walbiri sen-

tences composed of particles and clitics that specify sentence mood.

The label AUX is intended to capture the parallels between the

function of these second position particles in many languages and

the function of auxiliary verbs in others. Confusion arises be-

cause many languages have other auxiliary or "helping" verbs

which serve to build complex predicates, not sentences:

(24) ?əné?—sxʷ leŋ-n-oŋəs   "You came to see me"
       1   2   3 4 5

1 - come   4 - trans.
2 - you   5 - 1st/2nd object
3 - see

In (14), ?əné? is an auxiliary or "helping" predicate, but it is
not a part of the Lummi AUX constituent, which is composed of par-
ticles. Some languages, including some Salish languages, may not
have a syntactic category AUX. We therefore do not claim AUX to
be a syntactic universal, but an important typological feature
and a significant cross-language parallel. Klokeid (1974) gives
an interesting analysis of AUX in Nitinaht (Nootkan) and Demers
(1980, 1981) has argued for AUX in Lummi.[2] We will recognize an
AUX constituent in the analysis of Lummi sentences given here, but
we would like to emphasize that if the reader prefers, he or she
can substitute the longer label "second position indicative par-
ticle sequence" for the more controversial term "AUX". In Lummi,
as we will show, all subordinate clauses lack an AUX constituent.
Therefore, the absence of AUX cannot be taken as evidence that a
clause is an embedded subordinate clause, as opposed to an adjoined
subordinate clause, as is the case in Walbiri.

There are modal particles in Lummi that also appear both in
indicative and subordinate clauses, and are also not AUX particles:

(25) ?əné?-q-lə-sən   "I might have come"
        1   2 3 4

      1 - come   3 - past.
      2 - possibility 4 - 1st person

(26) x̌či-t-sən kʷ? ons-?əné?-q-lə "I know you might have
                                        come"

There are other particles in Lummi that may occur in several clause
types.

Since third person marking is zero in indicative sentences,
the question arises as to how such sentences can be identified
as indicative. The answer is that if a construction is not marked
subordinate, and if it does not carry first or second person
subject marking, it may be identified as a third person finite
indicative clause. The Predicate-AUX complex constitutes a com-
plete sentence, what Hukari (1976) termed the "proposition"; no
nominal arguments are required to make a complete sentence. Since
third person marking is phonologically null, an intransitive
predicate that appears alone, as in Lummi

(27) ye?   "He goes"

(28) swəy?qə?   "He's a man"

may be interpreted as a complete sentence, as a predicate with a
third person subject. If a predicate is transitive, it is overtly
marked as having more than one argument, by virtue of a transi-
tivizing suffix:

(29) x̌či-t-s   "He knows it"

Salish languages have a set of such transitivizing suffixes, which
mark differences in the degree of control of the agent. (See
Thompson, 1978; Thompson and Thompson, 1981; Saunders and Davis,
1978; Galloway, 1978; and others.)

2.2. Nominals: the iota operators. It has been argued that
nominal complements or adjuncts that appear in Salish sentences
are not a part of the same clause in which the predicate appears,
but separate clauses in their own right. This view has been most
clearly developed by Kinkade (1978) in his important paper on

the lack of a noun/verb distinction in Salish. When non-oblique nominals occur in a sentence, they may be interpreted as ana- phorically linked to some pronominal argument that is invariably marked in the Predicate-AUX complex. They are optional additions to the main clause, which is syntactically complete without them; they are never syntactically integrated into the Predicate-AUX complex. Furthermore, in Lummi they may always be set off op- tionally by a pause and other prosodic features that mark them as adjoined.

(30) x̌či-t-s, cə swəy?qə? "He knows him, the man." = He knows the man.

The crucial feature of nominal adjuncts in Salish is that they may be formed from <u>any</u> predicate, by means of the freely productive deictic particles that serve as determiners, and serve to distin- guish this clause type. Salish languages typically have a set of such deictic determiners that mark distinctions in gender, visibility, distance, known vs. unknown, etc. Since these deter- miners are freely productive with all predicates, they correspond exactly to the logician's iota operator; an operator which builds a term out of a predicate.

(31) cə ye?　　　　　　"the (one that) goes"
$\iota x(Fx)$

   cə swəy?qə?　　　　"the (one that is a) man"
$\iota x(Fx)$

   cə x̌či-t　　　　　　"the (one that) knows it"
$\iota x(Fx,y)$

The set of such determiners in Lummi that distinguish these clause types includes:

(32) Masculine   Feminine

   cə   sə   term specifier (def., indef.)

   k^w   k^w   remote, invisible

   k^wcə   k^wsə   remote, but may or may not be visible

Less frequently occurring are:

(33) Masculine   Feminine

   χə   χə   certain; special

   čə   čə   only, just a part
                             (čə swəy?qə? = a bachelor)
                             čə sməyəs = just a part of the meat)

In Lummi, these determiners or iota operators serve to build two kinds of nominals from predicates, corresponding to the types identified for Squamish by Kuipers (1967). We will follow Kuipers' terminology here.

2.2.1. "Subject centered" nominals. In these constructions, the nominal is comparable to the "headless" relative clause as identi- fied by Hale and Platero (1975). Since the subject is always the "missing" <u>third</u> person head of the relative clause -- or, in other terminology, may be viewed as having been <u>extracted</u> -- it is never marked on the nominal.[3] Examples are as in (31) above.

2.2.2. "Object centered" nominals. In these constructions, the object is always the "missing" third person head of the relative clause -- the element that has been <u>extracted</u>. Accordingly, it is never marked on the nominal, while the subject <u>is</u> marked. Examples;

(34) cə x̌či-t-ən　　　　　"the (one that) I know"
$\iota y(Fx,y)$

   cə x̌či-t-əx^w　　　　"the (one that) you know"
$\iota y(Fx,y)$

cə x̣či-t-əs   "the (one that) he knows"
ιy(Fx,y)

cə x̣či-t-ɣ   "the (one that) we know"
ιy(Fx,y)

Intransitive predicates of course can never be inflected as object
centered nominals, since they have no objects to extract. The
examples given in (31) and (34) show how the iota operator nota-
tion captures the syntactic notion of extraction in these derived
nominal expressions.

The set of person markers that appear in object-centered
nominals are those given in (34). This set of "reduced" person
markers is distinct from the person marking clitics that appear in
AUX in finite or indicative clauses.

2.3. Nominalizations and derived predicates. The third Lummi
clause type to be surveyed here is also a derived nominal expres-
sion. We will term these expressions nominalizations, in order to
differentiate them from nominals, which result from the concatena-
tion of a determiner and a simple predicate. Nominalizations
result from the concatenation of a determiner (or iota operator)
and a derived predicate; a predicate with the prefix s-. Nominal-
izations, like nominals, occur with the set of possessive person
marking affixes, as follows:

(35) sə nə-ten   "my mother"   sə ten-s   "his mother"

      sə ʔən-ten   "your mother"   sə ten-ɣ   "our mother"

In (35), these affixes occur with a nominal and mark possession.

(36) kʷ nə-s-ye?   "my going"   kʷ s-ye?-s   "his going"

     kʷ ʔən-s-ye?   "your going"   kʷ s-ye?-ɣ   "our going"

In (36), these affixes may be said to mark the subject of the
nominalization. Across languages, possessive affixes often serve
this function, as the English translations indicate.

Recall that nominals (Det + Predicate) refer to individuals
and may be translated as "the one who {does/is} X". Nominalizations
(Det + s- + Predicate) refer to propositions as individuals; that
is, they refer to some proposition, without asserting that it is
the case, in contrast to finite indicative clauses with AUX.
Nominalizations make it possible for the Lummi speaker to refer
to propositions, in the same way that other objects may be referred
to. If the derived predicate on which the nominalization is built
is transitive, then the object of that predicate is marked just
as it is in main clauses:

(37) a. kʷ nə-s-x̣či-t-∅   (3 person obj.)   "my knowing him"

     b. kʷ nə-s-x̣či-t-oŋəs   (2 person obj.)   "my knowing you"

     c. kʷ s-x̣či-t-oŋəɣ   (1 pl. obj.)   "his knowing us"

Derived predicates often appear without a possessive person marker:

(38) a. swəy?qə?   "It's a man."

     b. sɬeni?   "It's a woman."

     c. sx̣ʷto?   "It's Raven."

Some derived predicates apparently have no corresponding underived
forms; that is, these predicates are rare or non-occurring without
s-. The examples in (38) seem to fall in this class, and therefore
we do not hyphenate the s-.

It is worth emphasizing here that predicates with s- are not
nouns, or derived nouns, even when a corresponding underived form is

lacking.[4] Derived predicates with s- function syntactically like
any other predicate:

(39) nə-s-łi? kʷ nə-s-ye? "It is my wish that I go;
I want to go."

Lummi predicates are simply undifferentiated semantically between
"noun", "verb", "adjective", etc., and correspond closely to the
predicates of predicate logic. It is the determiner which builds
a nominalization from a derived predicate, and thus determines the
syntactic role of the construction.

Note that it is not the case that the derived nominals and
nominalizations are built upon finite sentences; the AUX elements
that build finite sentences are excluded from them. A predicate
plus AUX is a finite sentence; a predicate preceded by a determiner
is an adjoined subordinate clause. In this sense, Lummi not only
lacks a noun/verb contrast, it lacks a word/clause contrast.

(40) a. x̌či-t-sxʷ "You know it"
(Finite sentence)

b. x̌či-t-ə-sxʷ "Do you know it?"
(Finite sentence)

(41) a. cə x̌či-t-əxʷ "the one that you know"
(Non-finite nominal
expression)

b. kʷ ?ən-s-x̌či-t "your knowing it"
(Non-finite nominal
expression)

These examples show that the role of the predicate is the same in
all these constructions; that is, it assigns some attribute, or is
"predicational", just as all verbs, nouns, adjectives, etc. in
other languages are. It is the grammatical particles, or syntactic

operators, that serve to build sentences or nominal expressions.
Predicates are neither nouns, verbs, nor sentences -- they are the
lexical items upon which the grammatical particles operate to
produce syntactic categories or structures. Predicates are true
of individuals; therefore, a predicate preceded by a determiner
may be used to specify some individual. Propositions or sentences
are true of the world; therefore a predicate plus an AUX element
that identifies the individual of which the predicate is true can
be used to make an assertion about the world. Alternatively, pro-
positions can be referred to as objects of discourse; this is the
function of nominalizations.

Davis and Saunders (1981) make the important observation that
Bella Coola clauses with the s- prefix merely mention some proposi-
tion, as opposed to the assertion of a proposition that is the work
of a main clause. This contrast between assertion and mention is
precisely the work of AUX. Main clauses have sentence mood, have
illocutionary force; in the case of statements, finite sentences
state that some proposition matches up with the world; in the case
of a yes/no question, finite sentences are used to ask whether the
proposition matches the world. In Lummi nominals, (cf., cə
x̌či-t-ən, "the one that I know") there is a presupposition as to
some state of affairs, as in all definite descriptions; but
assertion is not the function of a nominal. It is the deictic and
modal features marked in AUX, including tense in languages such as
English, that serve to give a sentence a truth value, so that a
finite sentence can be used to assert or to ask; whereas non-finite
clauses may be used only to mention some possible state of affairs.

Since a grammar needs only to mark the contrast between finite and non-finite clauses, it is redundant to have grammatical mechanisms showing both a) that some clauses are finite (via AUX), and b) showing that other clauses are non-finite (nominalized clauses, subjunctives, conditionals, etc). Therefore, some languages have only one of these mechanisms. Lummi has both: it explicitly marks some clauses as finite, with AUX, and it explicitly marks some clauses as non-finite, with determiners.[5] Because of this redundancy, determiners may in some cases be omitted in rapid speech; but they are always optionally present, whereas determiners and AUX are always mutually exclusive.

Nominals, as described in Section 2.2. above, are either "subject centered" or "object centered". There are no nominals that are "oblique centered". If a nominal adjunct is to correspond to some oblique argument of a predicate, then this adjunct must be a nominalization. For example, the predicate iłən, "eat" in Lummi is intransitive:

(42) iłən ə cə sče:nəxʷ   "He ate (fed on) the salmon"
      1   2   3   4

      1 – eat   3 – det.
      2 – obl. part. ⁴ – salmon

(43) steŋ kʷ s-iłən-s   "What was it, that on which
      1   2   3 4 5   he fed? = What did he eat?"

      1 – what is   4 – eat
      2 – det.   5 – 3rd poss.
      3 – nom.

Note that in (43), the nominalization is _not_ introduced by the oblique marker ə, as the nominal in (42) is. Nominalizations with

a possessive affix that serves to mark the subject of the derived predicate are never marked oblique in our data.

2.4. Hypotheticals. The fourth Lummi clause type to be surveyed here is the hypothetical. This clause type corresponds to clauses which have been termed "unrealized", or "conditional", etc., in other Salish languages. These clauses are non-finite; they lack AUX. Like nominals and nominalizations, they are marked subordinate with a determiner. They resemble object-centered nominals in that they occur with the "reduced" person-markers given above in (34). They resemble nominalizations in that they refer to propositions, but they do not require the s- prefix. The distinguishing features of hypothetical clauses are as follows:

(44) a. They occur only with the determiner kʷ (remote, invisible = abstract), or with the clause particle əʎ, "if, when";

      b. They never carry possessive affixes;

      c. Person subject is marked on intransitive as well as transitive forms, via the "reduced" person markers; that is, there is no "object centered" vs. "subject centered" contrast.

      d. They convey that the proposition mentioned is hypothetical.

Examples:

(45) Transitive

      a. kʷ xči-t-ən   "if I know it"

      b. kʷ xči-t-əxʷ   "if you know it"

      c. kʷ xči-t-əs   "if he knows it"

      d. kʷ xči-t-ʎ   "if we know it"

In the examples given in (45), all these hypothetical forms are homophonous with certain object-centered nominals, and may also be interpreted as "the remote one that I (you, he, we) know". Recall that the subject centered nominals carry no subject marking, no ergative suffix, and have only third person subjects.

(46) kʷ x̣či-t   "the remote one that knows him"

Intransitive predicates in a hypothetical construction differ from intransitive nominals also in person-marking:

(47) Intransitive

    a. kʷ ye?-ən   "if I go"

    b. kʷ ye?-əxʷ   "if you go"

    c. kʷ ye?-əs   "if he goes"

Intransitive nominals never carry person marking, and of course occur only in the third person:

(48) kʷ ye?   "the remote one that goes"

An example of the contrast between a hypothetical clause and a nominalization is as follows:

(49) x̣ǒost   cu nil̓ əl̓ qʷəlqʷəl-əs   "That one brags when-
     1   2   3   4   5   6   ever he talks."
                                  (Hypothetical)

    1 - brag   5 - talk (repeated activity)
    2,3 - that one (male) 6 - 3rd pers. (non-finite)
    4 - whenever

(50) leŋ-t-sən kʷ s-qʷəl-s   "I saw him when he talked."
     1 2 3   4   5 6 7   (Nominalization)

    1 - see   5 - derivational
    2 - trans.   6 - talk
    3 - 1st person 7 - 3rd poss.
    4 - comp.

This completes the list of clause types in Lummi. To summarize: Lummi has main clauses — declarative and interrogative (marked with AUX); and subordinate clauses — nominals, nominalizations, and hypotheticals (marked with determiners, and further differentiated as described above). Parenthetically, we may observe that Lummi imperative sentences lack both AUX and determiner, and are non-finite main clauses. There are no imperative suffixes or particles, and there is no distinctive imperative intonation.

As the preceding discussion of the syntactic function of predicates and particles in Lummi shows, we are of the opinion that Kinkade (1978) is correct in his claim that there is no contrast between simple nouns and verbs in Salish, as Thompson and Thompson have repeatedly claimed. There are predicates, and there are particles; some of the latter are syntactic operators which serve to determine clause types.

Lummi derived nominal expressions have some syntactic properties that parallel those of simple nouns in languages that have a noun/verb contrast. Across languages, both clauses and nouns may carry case marking. Lummi nominal expressions have case; they are absolutive:

(51) a. sl̓i-ŋ-əst ti?ə məhoy?   "Put these baskets away!"
       1 2 3   4   5

      1 - be high   4 - demon.
      2 - medio-passive 5 - basket
      3 - caus.

    b. ?u? ?əmot cə skʷto?   "Raven is at home."
       1   2   3   4

      1 - connective part. 3 - det.
      2 - sit   4 - Raven

or oblique:

(52) a. ɢ̓el-sən ə cə swəy̓ʔqə?   "I believed the man."
          1   2   3   4   5

          1 - believe   4 - det.
          2 - 1st pers. 5 - man
          3 - oblique

      b. iƛ̓ən-sən ə cə t̓eq̓ə?   "I ate the salal."

In some Salish languages, nominal expressions may be inter-
preted as ergative when there is an accusative pronoun in the
clause. The following Lushootseed examples are taken from Hess
(1973, pp. 91-93):

(53) ʔučax̌ʷa-t-s   ti čačas   'The boy clubbed me.'
      clubbed-   the boy
        transitive-me

(54) ʔučax̌ʷa-t-sid   ti čačas   'The boy clubbed you.'
      clubbed-   the boy
        transitive-you

Lummi lacks sentences corresponding to (53, 54) because of the agent
hierarchy.[6]

3. Subject marking vs. subject agreement.

We noted earlier that
Salish predicates are conveniently indexed for the analyst according
to the number of non-oblique arguments they have. We need not
have recourse to the lexical entry for the predicate; morphological
material attached to the predicate shows the number of non-oblique
arguments. If the predicate has <u>no</u> affix or the suffix -ŋ (middle
voice or intransitivizer), it is intransitive, and has a single
non-oblique argument:

(55) a. ʔəne?   "He comes"

      b. xeč̓-ŋ   "He sneezes"

If the Lummi predicate has the suffix -t or the suffix -nəx̌ʷ (~-nə)
(according to the degree of control on the part of the agent), it
is transitive, and has two non-oblique arguments:

(56) a. č̓sə-t-s   "He hit it (on purpose)"

      b. č̓əs-nə-s   "He hit it (accidentally)"

There are no "di-transitive" predicates in Lummi such as <u>give</u>,
<u>teach</u>, etc. The corresponding Lummi predicate has an additional
oblique argument.

(57) ʔoŋəs-t-sən sə sƛeni? ə cə sče:nəx̌ʷ
         1   2 3   4   5   6 7   8

      1 - give   5 - woman
      2 - trans.   6 - oblique
      3 - 1st pers. 7 - det.
      4 - det.   8 - salmon

      "I gave the woman the salmon." (I presented the woman
      with the salmon)

In some Salish languages, there are certain predicates with
an "in-directive" or causative affix that do have three non-oblique
arguments.[7] The following example in Spokane is given by Carlson
(1980, p. 25):

(58) ʕʷos-ɬ-t-an   ƛu? Albert x̣x̣λcís
      lost:it:him:I   DET   his:dog
      PRED   DIRECT GOAL

      "I lost Albert's dog" (Compare the English "I lost
                             Albert his job")

In this example, the suffix -ɬ- adds a third non-oblique argument
to the transitive predicate. In all these cases, the number of
arguments is clearly marked on the predicate, and these predicates
in isolation may be interpreted as full sentences. Therefore, it
may be argued that these predicates have pronominal arguments, to

which any nominal adjunct is anaphorically linked. This anaphoric linkage, we have seen, is a necessary condition for non-temporal adjoined clauses.

Where nominals are set off with a pause or break in intonational contour in a Lummi sentence, they are clearly adjoined:

(59) kʷɔləš-t-s, cə sməy?əs   "He shot it, the deer."
      1   2 3   4   5

      1 - shoot   4 - det.
      2 - trans.   5 - deer
      3 - erg.

All nominal expressions in Lummi may optionally be set off in this way.

Consider the following contrast:

(60) ?u? x̌či-t-sən cə swəy?qə kʷ s-ye?-s

      I know it/him, (the one who is a) man, (who is) going
      "I know the man who is going"

(61) ?u? x̌či-t-sən kʷ s-ye?-s cə swəy?qə

      "I know it/him, (that he is) going, (the one who is a) man
      "I know that the man is going"

As the clause-by-clause translations show, no embedding need be postulated to account for this contrast. In both examples, the two nominalized clauses are sisters under NOM, and it is the order of the nominal expressions that determines their interpretation. The proposed structure for both (60) and (61) is:

(62)

```
                S̄
          _____|_____
         S            NOM
      ___|___      ____|____
     PRED  AUX   NOM      NOM
```
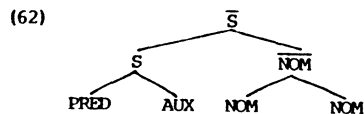
We conclude that there are no cases in Lummi where a nominal adjunct can be shown unambiguously to be syntactically integrated into the main clause. Nominal adjuncts are simply sisters to the main clause under S̄; and Lummi, despite its fixed word order, can be recognized as a clear example of what Hale (1982) calls a non-configurational, or "one-bar" language. A crucial feature of this type of "shallow" syntactic structure is the fact that the subject of the sentence may be read off the predicate or Predicate-AUX complex, thus obviating the necessity for the kind of "two-bar" syntactic structure involving government that languages such as English have. In Hale's framework, the Salish languages, like the Australian languages, have the single endocentric rule schema $\bar{X} \rightarrow \ldots X \ldots$, with relatively "flat" phrasemarkers. Lummi shows other attributes of non-configurational languages listed by Hale: 1) "pronoun drop" (zero third person); 2) lack of an NP-movement transformation; 3) lack of pleonastic words ("it", "there" as abstract subjects: cf., "it's raining"); 4) a Predicate-AUX complex; 5) "looseness" of grammatical organization (we may include here adjoined rather than embedded clauses), etc. In contrast, languages like English have deep hierarchical structure, government, "tight" grammatical organization, etc.

All of these syntactic features of non-configurational languages may follow from the fact that these languages lack a Subject syntactic category.[8] The subject of the sentence is marked in the Predicate-AUX complex, but there is no PS rule corresponding to S → NP VP. Therefore, there is no subject position for other

elements to be moved into; no need for "dummy" or pleonastic
subject elements; the possibility of a phonologically null sub-
ject marking in AUX for some person, etc. And the unusual feature
of Salish syntax that we are concerned with here, the lack of
embedded clauses, also follows from this shallow syntactic struc-
ture. Subject and object are marked in main clauses, but there
are no NP argument positions in main clauses that a subordinate
clause could occupy.

4. Propositional attitudes. We turn now to the question of how
Lummi speakers are able to build sentences about sentences, to
express propositions about propositions. The pragmatic functions
of the Lummi clause types that we have surveyed so far may be
summarized as follows:

(63) 1. Main clauses: used to assert or question some
proposition. $\vdash (F\ x); ?(F\ x)$

     2. Nominals: used to identify some individual
by means of some attribute.
$\iota x(F\ x); \iota x(Fx,y); \iota y(Fx,y)$

     3. Nominalizations: used to <u>mention</u> some proposition
relative to some context.
$..(F\ x)...$

     4. Hypotheticals: used to mention some proposition
relative to some context, and to
convey that the state of affairs
it describes is hypothetical.
$...*(F\ x)...$

To this we may add, parenthetically:

(64) 5. Imperatives: used to instruct the hearer to
perform or not to perform some
action. $!(F(x))$

?əw?-txʷ   s-u-čeq̓   cə   ?ən-sp̓oλəŋ
1   2   3 4 5   6   7 8

1 - neg.   5 - fall
2 - caus.   6 - det.
3 - derivational 7 - 2nd poss.
4 - connective part. 8 - smoke

"Don't let your smoke fall."

Lummi has two clause types, therefore, that can be used to mention
propositions without asserting them: nominalizations and hypothe-
ticals.

(65)   nə-sλi?   kʷ ?ən-s-ye?   "I want you to go"

The nominalization in (65) refers to some state of affairs without
asserting that it describes some actual event.

(66)   čse-t-ŋ-sən kʷ ye?ən   "I was told to go"

The adjoined clause in (66) mentions some state of affairs and
identifies it as hypothetical.

Examples (65) and (66) are sentences about sentences. Con-
structions that have this semantic property — that enable us to
mention some proposition in order to comment about it, without
commiting ourselves as to its truth or falsity — express what
Russell (1940) called "propositional attitudes". Across languages,
complex sentences with embedded clauses are typically used in the
expression of propositional attitudes. Lummi speakers obviously
are able to express propositional attitudes, to build sentences
about sentences. If there is no embedding in Lummi, we need to
show what grammatical mechanisms Lummi employs to do the work of
embedding in other languages. We will need to show how these
Lummi constructions differ syntactically from embedding construc-
tions in other languages, and we will also need to show that they

have the same logical and pragmatic properties as embedding con-
structions.

In this section, we will survey the grammatical devices that
Lummi employs to do the work of embedding. Each of these con-
struction types deserves lengthy treatment; our purpose here is
only to identify them as grammatical devices which languages may
use in the place of embedding. In doing so, we are able to give a
unified functional account of a variety of features of Lummi
syntax.

4.1. Single clause expression of propositional attitudes.

There
are no subordinate clauses in these constructions, but rather
elements that serve to build complex predicates.

4.1.1. Predicative particles.

Included here are suffixes and/or
clitics that may attach to the predicate. Some of them are modal
elements:

(67) ye?-c̓   "It seems that he went"

And desideratives:

(68) ye?-yəq-sən ?ol   "I just wish I could go".

Notions such as these are frequently expressed by embedding in
other languages, as the English translations show.

4.1.2. Auxiliary or "helping" predicates.

Some predicates — as
distinct from the particles referred to in 4.1.1. — also serve
to build complex predicates. These are primarily directional.

(69) ye? tok̓ʷ   "He went home"

(70) ?əne?-sən leŋ-n-ŋ   "He came to see me"

These complex predicates do not involve embedding, in contrast to
the English translation of (70). Constructions with complex
predicates might be described as showing "semantic embedding", in
the sense of Ross' (1967) analysis of the English auxiliary verbs
and modals. We are concerned here with syntactic rather than
semantic structure, and our claim is that there are no clause
boundaries unless there is some syntactic evidence for such bound-
aries. In Lummi, subordinate clauses are introduced by a determiner.
Determiners are excluded between a predicative particle and the
predicate, or between an auxiliary predicate and the main predicate.
In this respect, constructions with complex predicates resemble
other constructions involving modification in Lummi, as in the fol-
lowing single clause construction:

(71) ?əy?-sxʷ swəy?qə?   "You're a good man"
        1   2   3

        1 - be good
        2 - you
        3 - man

There are also complex predicates with the linking particle ?u?;
these constructions are often translatable with adverbs and quanti-
fiers:

(72) yos ?u? ?iƛən, cə sk̓ʷto? "Raven always eats"

In this example, there is a main clause with a complex predicate
with ?u?, and an adjoined subordinate clause, the adjunct.

4.2. The expression of propositional attitudes by constructions with subordinate clauses.

4.2.1. Direct propositional adjuncts.

There are propositional ad-
juncts in Lummi that are anaphorically linked to a direct (subject

or object) argument marked on the predicate. In these cases, the pronominal refers to a proposition as an individual. These cases are precisely parallel to the adjoined relative clause in syntactic structure.

4.2.1.1. "Subject-linked" propositional clauses.

In these constructions, the predicate is intransitive. The single argument of the predicate is the subject, which is anaphorically linked to the adjoined clause. Some of these are impersonal:

(73) ?əw?-lə kʷ ?ən-s-leŋ-i-t cə swəy?qə?

"It's not the case that you saw the man" =
"you didn't see the man"

(74) ?əy -qȴ kʷ si?it-əs cə s-qʷel-s
    1   2   3   4   5 6 7 8 9

1 – good   4 – to be true 7 – derivational
2 – counterfactual 5 – 3rd person 8 – speech
3 – det.   6 – det.   9 – 3rd poss.

"It would have been good if his speech were true"
(hypothetical)

(75) ?əskʷəy kʷ nə-s-ye?   "It's impossible for me to go;
    1   2 3 4 5   I can't go"

1 – to be impossible 4 – derivational
2 – det.   5 – go
3 – 1st poss.

Other subject-linked propositional clauses are related to some individual, and carry possessive person markers:

(76) ?ən-sȴi? kʷ nə-s-ye?   "You want me to go"

Compare (65) above. Also:

(77) nə-šxʷətín? kʷ nə-s-ye? "I don't like to go"
    1   2   3 4 5 6

1 – 1st poss. 4 – 1st poss.
2 – to dislike 5 – derivational
3 – det.   6 – go

4.2.1.2. "Object-linked" propositional adjuncts.

In these constructions, the predicate is transitive. The object argument of the predicate is a third person pronominal that is anaphorically linked to the adjoined subordinate propositional clause.

(78) ?u? xči-t-sən kʷ ?ən-s-?əy?   "I know that you are
                                    good"

(79) leŋ-i-t-sən kʷ s-q̓ʷəl-s   "I saw him talking"

4.2.2. "Oblique-linked" propositional adjuncts.

Here the adjoined subordinate clause corresponds to an oblique argument of the predicate. Oblique arguments are not marked on the predicate, so there is no pronominal argument to which the subordinate clause is linked. There is a different kind of linkage here: the preposition or case particle specifies the connection of the subordinate clause to the predicate.

(80) ?əw?-sxʷ qʷəqʷəl ?əȴ ?iȴən-əxʷ
                     PREP

"You don't talk while eating"

(81) iȴən cə skʷto? ə cə sče:nəxʷ
                    PREP

"Raven ate the salmon"

4.2.3. Simple adjunction.

Some adjuncts resemble adjoined predicates in other languages.

(82) sexʷ-ŋ-sən kʷ nə-s-ye? "I'm (too) lazy to go"

And temporal clauses:

(83) ȴəȶ̓ənəȴ-sən kʷ nə-s-šət-ŋ   "I'm slow when I walk" or
                                   "I'm slow, walking"

And purpose constructions:

(84) xče-t-ŋ cə sce:nəxʷ šxʷ-?iȴən-s ə cə čənčixʷəŋ

"The salmon was dried to have food for the winter"*

Some constructions with simple adjunction employ a class of predicates that we will call "dicto-cognitive"; they refer to acts or states of speech or cognition.[9] When we make some comment on something that is said or thought, we construct sentences about sentences, or propositions about propositions. Yet the curious thing about many of these predicates in Lummi (and other Salish languages) is that they are morphologically <u>intransitive</u>. Is it possible that they are syntactically transitive, although the predicate is marked only for a single argument? If this were the case, there would be no pronominal argument for the subordinate propositional clause to be anaphorically linked to, and it might be argued that the clause itself constitutes the argument to the predicate, and is therefore embedded. However, these subordinate clauses share the properties of all other such clauses in Lummi: they are not syntactically integrated into the main clause, and they may be optionally set off from the main clause by a pause and other prosodic features.

Examples of these intransitive dicto-cognitive predicates are as follows:

(85) ǧel-sən kʷ nə-s-lerɬ-n-oŋəs

"I believe that I see you"

(86) x̌ʷənəǩʷen-ə-sx̌ʷ kʷ ʔən-s-ʔiɬən, siʔem?

"Do you think that you (will) eat, sir?"

(87) heʔk̓ʷ-lə—sən kʷ s-yeʔ-s

"I forgot that he went"

(88) ʔex̌-ŋ cə swəyʔqəʔ kʷ s-x̌či-t-s-lə sə sɬeni?

"The man said that he knew the lady"

Evidence that these propositional subordinate clauses are not direct objects of these morphologically intransitive predicates is as follows: when a predicate such as ǧel "believe" is used in reference to an individual, that individual is marked <u>oblique</u>:

(89) ǧel-sən ə cə swəyʔqəʔ? "I believe the man"

Perhaps a better translation of this predicate would be "to be sure about, to be certain of". When the predicate is applied to a first or second person object, a transitivizer appears:

(90) ǧel-n-oŋəs-sən   "I believe you (trust you?)"

Examples (89) and (90) show that the subordinate propositional clause is not the direct object of this predicate; we conclude that these propositional clauses are adjuncts to the main clause.

We noted in Section 2.3. above that there are no "oblique centered" nominal expressions, and that adjuncts that correspond to oblique arguments are expressed as nominalizations, with no oblique particle present. Examples (42) and (43) are repeated here as (91) and (92):

(91) iɬən ə cə sčeːnəxʷ   "He ate (fed on) the salmon"

(92) steŋ kʷ s-iɬən-s   "What did he eat? (What is it, that on which he fed?")

Therefore, it is possible that the intransitive dicto-cognitive verbs under discussion here have oblique arguments, which would not be marked on the predicate, and to which the adjoined nominalizations correspond. In that case, better translations for examples (85, 86, 87) may be as in follows:

(93) I'm certain, (about) my seeing you.

(94) What do you think, (about) your eating, sir?

(95) I forgot, (about) his going.

Davis and Saunders (1981) propose that because of the association

between forms with the s- prefix and oblique arguments in Bella

Coola, that s- prefixed forms always correspond to some "peripheral"

semantic role, in relation to the predicate. In Lummi, this is

not the case; as we have seen, predicates with s- are simply de-

rived predicates, and may serve as main clause predicates even with

attached possessive markers, as in

(96) nə-sčinəw? ti?ə sqʷəməy   "That dog annoys me"

and in examples (76, 77) above.

A second group of dicto-cognitive predicates do take direct

objects, but these objects are the individuals addressed, not the

propositions conveyed. They correspond to English sentences like

(97) a. He ordered me to go.

b. He told me to leave.

c. He asked me if I went.

These English verbs may be said to have two objects or complements:

the person addressed and the proposition. In this respect, they

resemble English di-transitive verbs:

(98) a. He gave me the book.

b. He told me the story.

c. He asked me a favor.

But Lummi has no di-transitive predicates. Recall that with

predicates like give, the person recipient is the direct object,

and the gift is marked oblique. (See example (57) above.) It

seems plausible, then, that in a Lummi sentence like

(99) čse-t-sən kʷ s-ye?-s   "I ordered him to go" ("I
                                commanded him, (as to) his
                                going")

that the nominalization again corresponds to an unmarked oblique

argument of the predicate. It has been proposed that such construc-

tions in Salish show the operation of a "raising" rule, as has

been proposed for its English equivalent. We see no need for a

rule of this kind. Under our analysis, the main clause has a

pronominal object, while the adjoined nominalization has a prono-

minal subject, and these items are co-referential.

Another example of a transitive predicate with the addressee

as a pronominal argument, with an anaphorically linked nominal,

and an adjoined nominalization:

(100) ?i? χən-é-t-s kʷ nə-səl?éy?čən

k ʷ s-?əy?-s ye?-s ye? t̓ət̓əwi?əỷ ye?

"And she told my siblings that it would be good to go to
church"

One sub-set of these predicates is often employed in a passive

construction, so that the addressee is the subject, the single

non-oblique argument, while the proposition is adjoined:

(101) čse-t-ŋ-sən ə Bill kʷ nə-s-?iƛən

"I was ordered by Bill to eat"

(102) χəné-t-ŋ-sən kʷ ye?-ən t̓əl-n-i-xʷ-ŋ ə cə st̓élənoxʷ

"I was told to go take my medicine"

(103) čte-t-ŋ-ƛ ə Bill kʷ ye?-ƛ-lə

"We were asked by Bill if we went"

In sum, there are two ways of expressing propositions about

propositions in Lummi: in single clause constructions with

predicational particles or "helping" predicates; and in complex
constructions with adjoined propositional (nominalization or sub-
junctive) clauses. These adjoined clauses may be anaphorically
linked to a pronominal argument marked in the PRED-AUX complex,
oblique linked, or simply adjoined.

4.3. The logical and pragmatic properties of adjoined clauses.

We have shown how Lummi syntax excludes embedding as a grammatical
device, and outlined the construction types that it employs to do
the work of embedding. It remains to be demonstrated that the
logical and pragmatic properties of these alternative construc-
tions are the same. Compare the following:

(104) a. I shot the deer that was running.

      b. I shot the deer. It was running.

(105) a. I shot the deer while it was running.

      b. I shot the deer. At that time, it was running.

These examples show that sets of sentences can have the same truth
conditions as single sentences, provided there are deictic and
anaphoric elements that insure that the same events are being
described. But problems arise with intensional contexts:

(106) a. John believes that I shot the deer. (But I didn't.)

      b. John believes it. I shot the deer. (But I didn't.)

(107) a. John wants Ed to shoot the deer.

      b. John wants it. Ed shoots the deer.

These examples show that a set of sentences may not have the same
truth conditions as a single sentence with embedding, because the
embedded clause does not have a truth function independently of the

matrix predicate. But embedding is only one way to show this;
another way is to mark some clauses non-finite, and adjoin them.
Non-finite clauses are only mentioned, not asserted. Therefore,
the proposition stated in the non-finite clause has no truth
function, and the problems shown in (106, 107) do not arise.

Main clauses have another property, that of illocutionary
force. Therefore, a set of sentences may have different pragmatic
as well as truth-functional properties from a simple sentence.[10]

(108) I shot the deer. Was it running?

These problems also cannot arise with adjoined non-finite clauses,
since they do not have the property of illocutionary force. Thus,
if a language has grammatical devices for marking some clauses
non-finite, it does not need embedding also, to build complex sen-
tences that have the modal properties outlined here.

5. Conclusions.

We have addressed the question of whether Lummi,
a member of the Salish family, has embedded clauses; we conclude
that it does not, thus supporting the claims advanced recently
by Davis and Saunders on Bella Coola. We have defined Lummi
clause types, shown that all but main clauses are non-finite, and
shown how the lack of embedding, the lack of a noun/verb distinc-
tion, and the clausal status of derived nominal expressions are
all connected. We have shown that complex sentences with adjoined
clauses have the same logical and pragmatic properties as complex
sentences with embedded clauses, thus making it possible for the
Lummi speaker to build sentences "about" sentences. We have
identified the devices that Lummi employs to do the work of

embedding. We have identified Lummi as a non-configurational lan-
guage, and pointed out other attributes that languages of this
type share. These attributes seem to follow from the fact that
non-configurational languages have no subject (or "NP") syntactic
category that is independent of the predicate (or "VP"). Lummi
is an extreme case of this language type, since it has no nouns
that are constituents of main clauses, either in a subject cate-
gory or dominated by the predicate.

We want to close with an observation on which everyone who
works on these languages would agree: the relatively "shallow"
hierarchical structure and "loose" clausal adjunction would not
prevent the Salish speaker from expressing ideas as intricate and
elevated as those which can be expressed in any other language.

Footnotes

1. We would like to thank Mr. Aloysius Charles for his Lummi lan-
guage contributions. Elizabeth Bowman was kind enough to check
several points of Lummi grammar with Mr. Charles for us. Ken
Hale provided stimulating and helpful remarks on the material in
this paper. Finally, we would like to thank the Dean of Liberal
Arts and the Vice-President for research of the University of
Arizona for their financial support. In this paper, we generally
provide interlinear translations of the Lummi material, although
such translations have not been given in some instances where
repetitious material appears.

2. The analysis of AUX in this paper is revised from the Lummi
AUX proposed in Demers (1980, 1981). The revision is based on a
deepened understanding of the function of AUX-like elements in
natural language. For further discussion see Jelinek (1982).

3. The term extraction is used here as an expository device, and
does not imply an analysis which includes movement transforma-
tions.

4. Kinkade (1978) suggests that the s- prefix in certain Salish
languages marks an aspectual contrast, and is not a nominalizer.

5. The distribution of the subject enclitics is quite different
in some other Salish languages. In Thompson, for example, the
subject clitics occur only with intransitive predicates, while
transitive predicates occur with "reduced" subject suffixes. See
Thompson and Thompson, Ms.

6. See Jelinek and Demers (IJAL, forthcoming) "The Agent Hierarchy

and Voice in some Coast Salish languages."

7. Although there is a causative affix -x^w-, in Lummi, we have

not as yet been able to elicit sentences with this affix that have

three direct arguments.

8. See Jelinek (1982) for a discussion of SUBJECT and PREDICATE

as syntactic categories in some languages.

9. Jelinek (1981) includes a discussion of dicto-cognitive predi-

cates and the modal properties of complex sentences across languages.

10. The term "illocutionary force" refers to the use of a sentence

in discourse. See John Searle (1969) Speech Acts.

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