A Comparative Grammar of Bella Coola and Lushootseed

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1 Introduction

In this paper I have attempted a comparison of Bella Coola and Lushootseed, two languages of the Salish family spoken in the Pacific Northwest of the North American continent. Of the two, Lushootseed is the more typically Salishan, being a member of the Coast group with close ties and similarities to neighboring languages, while Bella Coola is perhaps the oldest offshoot of the family and has existed in relative isolation from other related tongues for centuries, undergoing heavy influence from adjacent languages of other phyla, in particular Wakashan. In spite of their long separation, however, the two languages are in many ways remarkably similar, particularly in terms of their syntactic processes, and in my description of their grammars I have tried as much as possible to emphasize this underlying similarity, at times (though I hope not too often) at the expense of a more direct approach that might be more appropriate for a discussion of one or the other of the languages in isolation. To the extent that this has been successful, it may be worthwhile to consider how well this unified treatment of two of the most diverse languages of the Salishan family can be applied to other members of the group.

A word here about the theoretical framework used in this paper might also be in order. For the purposes of describing the grammars of these two languages I have chosen a dependency framework as opposed to the more familiar systems based on constituency, and in particular I have adopted many of the insightful approaches and formalisms of the Meaning – Text Model (MTM) of Mel'čuk (1988). The salient features of the MTM are its treatment of an utterance as the result of a serial derivation from a semantic to a syntactic to a morphological and finally a phonological representation, and its description of the predicate structure of a sentence in terms of the interaction of the lexical properties of the predicative element and its dependent arguments or *actants*. At the syntactic level this predicative structure may be represented in terms of a dependency tree (D-tree) which consists of a node representing the predicate joined by labeled arrows to the nodes of each of its dependents, which may in their turn have dependents of their own (see figure 5 below for an example); each of these arrows represents a certain type of syntactic relation between head and dependent, although for our purposes we will limit ourselves to two such relations—the actant relation (a subcategorized argument relation) and the modifier relation. It is also important to emphasize that in a D-tree the order of nodes in the diagram in no way represents the linear order of elements in the surface form of the sentence; word order is considered to be a property of the morphological level, where lexical items are inflected and organized into a linear string, and linear precedence is taken to be one method available to a language to encode syntactic relations. Interested readers are referred to Mel'čuk (1988) *Dependency Syntax: Theory and Practice* for a discussion of the MTM *per se* and to Hudson (1984) for a discussion of dependency syntax in general.

My primary sources for this grammar have been, for Bella Coola, Nater (1984) and, for Lushootseed, Hess (1993). All data, when not attributed to another source, are drawn from these works; note, however, that I have in all cases retranscribed Nater's idiosyncratic phonetic notation into the more standard symbols used by Hess.

2 Syntax

Although Lushootseed and Bella Coola represent different extremes of the Salishan language family, they are surprisingly similar in terms of their syntax—indeed, as far as the fundamental grammatical processes of predication, subordination, negation, and the formation of questions go, the two are virtually identical. Both languages seem to share a common Comment – Topic sentence structure in which the Comment portion of the sentence serves as a predicate and the Topic portions function as its actants, a pattern which both languages are able to maintain due to their ability to predicate non-verbal Comments and nominalize verbal Topics. In terms of argument structure, the two languages differ in that Lushootseed seems only to have underlyingly monovalent roots and requires extensive use of voice and inflection to predicate more than a single actant, whereas Bella Coola seems to possess underlyingly divalent predicates that behave in some ways more like the familiar transitive verbs of Indo-European languages. Nevertheless, the languages do resemble each other in that they distinguish between "internal" actants (generally agent/experiencer and patient) and "peripheral" actants that are adjoined to the predicate by prepositions or particles, and both make extensive use of voice as a major component of their grammars.

2.1 Predication and Comment

One of the most distinctive characteristics of Salish in general is the ability of words from any of the "major word classes" to function as sentence predicates, and in this Lushootseed and Bella Coola are no exceptions. While the debate rages on as to whether or not these languages maintain an underlying distinction between verb and noun (see for example Kincade 1983), it is an uncontroversial fact that in Bella Coola and Lushootseed words that—based on their English glosses—would be classified as nouns, adverbs, interrogatives, etc., can appear in predicative position in the sentence bearing full verbal morphology, including (in the case of Bella Coola) pronominal agreement features. The net effect of this is that choice of which part of the sentence will function as predicate depends largely on the communicative structure of the utterance, in particular the Topic-Comment structure, rather than on the constraints imposed by lexical category. In Bella Coola (and it would appear also for Lushootseed), the basic sentence structure is Comment – Topic, with the additional requirement that the Comment be predicated and that the remaining elements in the Topic be realized as actants of that predicate (Davis & Saunders 1978).[1]

Bella Coola and Lushootseed have two methods for realizing this predicative focus.[2] The distinction between the two types relies crucially on the distinction between a predi-

[1] This also has the effect of creating a highly invariant VSO word order. In Bella Coola, the predicate is almost always sentence-initial; the same is true of Lushootseed, although less strictly so as adverbs and particles often appear to the left of the predicate. See section 4 on word order for further discussion.

[2] While the introduction of the term "predicative focus" (= predicative "Comment-ization") here may seem to muddy the waters a bit, it is preferable to the alternative of referring to the Comment portion of an utterance as "focus," since the term "focus" has been used in the literature with various, often contradictory meanings.

cate's "internal" and "peripheral" actants:[3] internal actants are those which appear in the sentence directly associated with the predicate or as pronominal elements, while peripheral actants may only appear in the sentence as NPs in association with a preposition or adjunctive particle.[4] The simplest form of predicative focus, then, is that which involves the focusing of what would be one of the internal actants of a verbal predicate in a "narratively focused" sentence (that is, in a sentence where the Comment is devoted to the action being performed, as it would be in a typical narrative, "*X* did this, *X* did that"). Consider the following examples, (abbreviations are listed at the end of the paper)

(1) (a) (i) ʔučala+təb ʔə tiʔiɬ wiwsu tiʔəʔ sqʷəbayʔ.
chase+[pass] prt D children D dog
"The children chased the dog."

(ii) tiʔəʔ sqʷəbayʔ ti ʔučalatəb ʔə tiʔiɬ wiwsu.
D dog D chase prt D children
"The dog is what the children chased."

(Lushootseed)

(b) (i) sp̓+is ci+xnas+cx ti+ʔimlk+tx.
hit+3p/3p D+woman+D D+man+D
"The woman hits the man."

(ii) ti+ʔimlk+tx ti+sp̓+is ci+xnas+cx.
D+man+D D+hit+3p/3p D+woman+D
"The man is the one the woman hits."

(Bella Coola; Davis & Saunders 1978)

In the (i) sentences, the Comment portion of the sentence corresponds to the action being reported; in the (ii) sentences, the sentence-initial Comment corresponds to an internal actant of the VP; the demoted VP is marked by the presence of a deictic (see section 3.1) which is usually reserved for nominal elements (or, in Bella Coola, for modifiers of nominal elements such as adjectives).

The second type of predicative focus involves forming a Comment from a peripheral actant. In both languages this is usually accompanied by the affixation of a nominalizing prefix, *s-*, to the verbal element of the sentence, as in

(2) (a) (i) ʔuəɬəd tiʔiɬ pišpiš ʔə tiʔəʔ sʔuladxʷ.
eat D cat prt D salmon
"The cat ate the salmon."

(ii) tiʔəʔ sʔuladxʷ tiʔəʔ s+ʔuʔəɬəd ʔə tiʔiɬ pišpiš.
D salmon D **npref**+eat prt D cat
"The salmon is what the cat ate."

(Lushootseed)

[3]While the term "peripheral" is borrowed from Davis & Saunders (1984), their complementary term "nuclear" has been replaced here by "internal" for convenience of exposition.

[4]Note that "NP" is not a term used in dependency syntax as, technically speaking, it denotes constituency; here, it should be read loosely as "a nominal element and its dependents".

(b) (i) nap+is ti+x̌msta+tx ti+staltmx+tx x+ti+q̓lsxʷ+tx
give+3p/3p D+person+D D+chief+D P+D+rope+D
"The person gives the chief the rope."

(ii) ti+q̓lsxʷ+tx ti+s+nap+is ti+x̌msta+tx ti+staltmx+tx
D+rope+D D+**npref**+give+3p/3p D+person+D D+chief+D
"It is the rope that the person gives to the chief."[5]

(Bella Coola; Davis & Saunders 1984)

In these examples the peripheral actants (marked with *ʔə* in Lushootseed and *x* in Bella Coola) from the (i) sentences appear as predicates in the (ii) sentences, with the nominalizing prefix appearing on the predicate of the (i) sentences. Note that in the Lushootseed example the internal argument of the (i) sentence, *tiʔiɬ pišpiš*, appears in the (ii) sentence as a peripheral actant of the nominalized verb, to which it in fact stands in a possessor-possessed relationship marked—as in ordinary possessives—by the particle *ʔə* (used also to mark possession for an overt third person NP, as in *tiʔiɬ pišpiš ʔə ti sʔuladxʷ* "the cat's salmon"; see section 2.6). That this is indeed a possessive relation (as opposed to *tiʔiɬ pišpiš* being a peripheral actant of the sentence predicate) is shown by examples such as

(3) tiʔəʔ sʔuladxʷ tiʔəʔ s+ʔuʔəɬəd+s
D salmon D npref+eat+3p poss pro
"The salmon is what it (the cat) ate."

where the erstwhile agent of the sentence is represented by the third person pronominal suffix from the possessive paradigm. Bella Coola displays no such behaviour.

2.2 Subordinate Clauses

The formation of subordinate or "embedded" clauses in both Lushootseed and Bella Coola is closely linked to the process of predicative focus described above. Of the four types of subordinate clauses that Hess lists for Lushootseed, three can be treated in precisely the same manner as predicative focus constructions, where a subordinated clause functions as an actant of another predicate; in the remaining type the embedded clause functions as a modifier of a predicate or, in a related construction found in Bella Coola, of an NP.

2.2.1 Predicative-subordinate clauses

Consider the following:

(4) (a) (i) tiʔəʔ sqʷəbayʔ ti ʔučalatəb ʔə tiʔiɬ wiwsu.
D dog D chase prt D children
"The dog is what the children chased."

[5]The actual gloss of this sentence given in the article is "the rope that the person gave the chief"; however, both Davis & Saunders (1978) and Nater (1984) gloss similar constructions as full sentences, a fact that follows directly from their claim that nominal stems (in this case *q̓lsxʷ*) can function as intransitive predicates. If my re-gloss of this sentence is incorrect, this would necessitate a minor restructuring of the argument to the effect of restricting predicative focus of peripheral actants in Bella Coola to relative clause constructions.

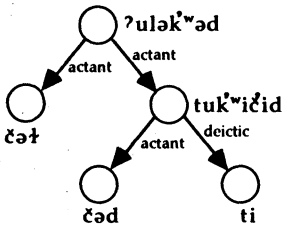
(ii) ʔuləkʷəd čəɬ ti tukʷičid čəd.
eat we D butcher+[patient] I
"We ate what I butchered."

(b) (i) tiʔəʔ sʔuladxʷ tiʔəʔ sʔuʔəɬəd ʔə tiʔiɬ pišpiš.
D salmon D npref+eat prt D cat
"The salmon is what the cat ate."

(ii) ɬu+gʷəxaliǰəd čəɬ tiʔəʔ d+s+(h)əliʔ+dub ʔə ti sʔubʔubədiʔ.
[irrealis]+open we D 1p+give+[pass] prt D hunters
"We will unwrap what the hunters gave me."

In these sentences, (a) and (b) parallel each other exactly, with the sole difference that in the examples the (i) sentences are headed by nominal stems while those in (ii) are headed by verbs; as pointed out above, however, all words (other than members of the "minor classes") are underlyingly, or have the potential to function as, monovalent predicates, in which case the respective differences between the (i)s and (ii)s are further reduced to the inconsequential distinction of the valency of their predicates. The situation in Bella Coola is identical and the D-tree for this type of structure in either language (using 4(a)ii as an example) would look something like

(5) D-tree for predicative-subordinate clauses



As with predicative focus, if the predicate of the higher clause corresponds to a peripheral actant of the lower clause (as in (b)), then the nominalized *s-* form of the predicate is required.

Predicatively focused NPs can also serve as actants of other predicates, giving subordinated structures like that represented in (6)

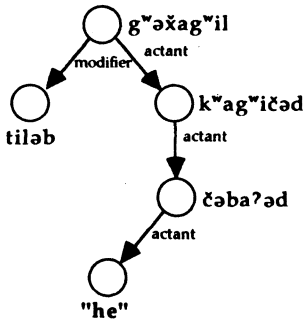
(6) bə+šudxʷ tiʔəʔ haʔɬ ʔu+kʷikʷəɬ qʷuʔ.
[repetitive]+see D good [perf]+trickle water
"Again he saw this nice trickling water."

Here the subordinate clause, *haʔɬ ʔukʷikʷəɬ*, stands in an actant relation to an NP, *qʷuʔ*, and appears between the nominal and the deictic marker; as we would expect in this example, the VP does not appear in nominalized form with *s-* as *qʷuʔ* is an internal actant of the intransitive *kʷikʷəɬ*. However, in

(7) tiləb ʔugʷəxagʷil tiʔəʔ tu+s+əsčəbaʔ+s kʷagʷičəd.
immediately got-loose this [past]+npref+pack+3p poss.pro elk
"Immediately this elk he had been back-packing got loose."

s- appears on the embedded clause (as does the pronominal suffix *-s*) because *kʷagʷičəd* stands in a peripheral role to the predicate of the embedded clause (cf. *tasčəbaʔ ʔə tiʔəʔ kʷagʷičəd* "He had been backpacking the elk."). This gives the following D-tree

(8) D-tree for adjective clauses



Although the Bella Coola counterpart to this type of construction is exactly parallel, there is a morphological difference in the treatment of the embedded clause. Compare the sentences in (6) and (7) to

(9) (a) kx+ic ti+χap ti+χmsta+tx
see+1p/3p D+go D+person+D
"I see the person who is going."

(b) kx+ic ti+ya ti+ʔimlk+tx
see+1p/3p D+good D+man+D
"I see the good man."

(c) ti+tqɬa ti+s+tx+is ti+χmsta+tx ti+qlsxʷ+tx
D+knife D+npref+cut+3p/3p D+person+D D+rope+D
"the knife that the person used to cut the rope"
(Davis & Saunders 1984)

Note that in sentence (a), as is the case with the ordinary adjective in (b), the embedded clause bears the deictic prefix, thereby indicating its role as a modifier dependent on the noun, which bears the both the deictic prefix and suffix. In Lushootseed the deictic appears only once, at the beginning of the phrase of which it is a part.

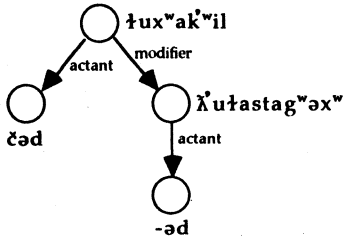
2.2.2 Modifier-subordinate clauses

The final type of Lushootseed subordinate clause given by Hess appears in sentences like

(10) ɬu+xʷaǩʷil čəd χ̓u+ɬastagʷəxʷ+əd
[irrealis]+tired I [habitual]+hungry+1p
"I get tired whenever I am hungry."

where the lower clause stands in a modifying relationship to the sentence predicate as an adverbial (all the examples provided by Hess represent time adverbials and conditional expressions). Verbs in these constructions are characterized by the use of the subordinate pronominal clitics (see section 3.3), but in other respects are identical to verbs in a matrix clause; this construction is particularly interesting in that it shows clearly that the marking of VPs with deictics in Lushootseed is only required when these stand as actants of a predicate, not as modifiers. The syntactic structure, however, is highly reminiscent of that in (5)

(11) D-tree for adverbial clauses



The Bella Coola construction is similar.

(12) (a) χ̓iliwa+s s+ʔmt+s
quick+3p npref+get-up+3p
"He was quick as he got up."

(b) ʔustxʷ+aw ʔula+suɬ+aw s+kɬ+s ti+snǎ+ɬayx
go-in+3p pl towards+house+3p pl npref+set+3p D+sun+D
"They go into their houses (when) the sun sets."

(c) ʔaɬǩʷnt nuux+tit s+qaaǎla+tu+tit
show+3p pl/3p pl npref+drink+[caus]+3p pl/3p pl
"They showed them how to drink."

Note, however, that here the adverbial clause bears the nominalizing prefix s-, which it does not in the Lushootseed example. These structures are also interesting in that the semantic relationship between the two clauses does not seem to be indicated lexically in either language (as it is in the English glosses, which use Wh-words for this purpose).

Bella Coola has another type of clause which appears to involve the embedding of a copulative sentence predicated on one of the two particles *wa* or *ka* (the irrealis).

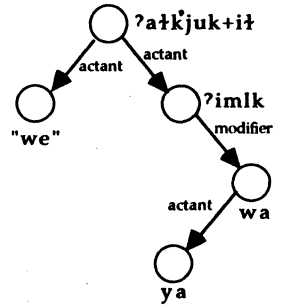
(13) (a) ʔaɬǩyuk+iɬ s+wa+s ti+ya ti+ʔimlk+tx
know+1p pl npref+prt+3p D+good D+man+D
"We know the man who is good."

(b) ʔaɬǩyukiɬ s+ka+s ti+ya ti?imlk
know+1p pl npref+prt+3p D+good D+man
"We know which man is good."

(Davis & Saunders 1978)

There are two interesting features here. One is the fact that *wa* and *ka* bear pronominal inflection, agreeing with the first internal actant, *ʔimlk*, and that the predication of the irrealis affects the definiteness of that actant (through the deletion of *-tx*, see section 3.1) in the same way had it appeared in association with an ordinary predicate. The second feature of interest is the appearance of the nominalizing prefix *s-* on these predicates. While the use of this prefix is generally restricted to adverbials and those cases in which a peripheral actant of a verb has undergone predicative focus, this does not seem to be the situation here. Consider, however, the following D-tree (deictics have been removed)

(14) Bella Coola copular subordinate clauses



In this structure we have a monovalent verb formed by predicative focusing of the *wa* particle; its single actant slot has been filled by the adjective *ya* which means that, in effect, the predicate is "saturated" and the lower VP *swas tiya* functions as a complete predicate standing in modifier relation to *ʔimlk*—precisely the circumstances under which the nominalizing *s-* appears in the modifier structures in (12) above. This analysis is made even stronger by the fact that there exists a word-order variant, here in the plural, *ʔaɬǩyuktiɬ wa?imlkuksc swanaw waya* "We know the men who are good", to which Davis & Saunders give an identical gloss. Hess reports no such structure for Lushootseed.

2.3 Peripheral Actants

Although all verbs in Lushootseed and Bella Coola are maximally divalent in terms of the number of internal actants they allow, it is possible to expression three or more actants in a sentence (although Lushootseed seems to have a have strong prohibition against having three NPs in a sentence and in general prefers to drop as many arguments as is possible for the discourse situation). These actants fall into two categories—actants which are subcategorized for by trivalent predicates (corresponding to the IO or OBJ2 in Indo-European languages) and prepositional phrases.

An example of the first type of peripheral actant from Bella Coola is given in (15).

(15) nap+is ti+ƛ̓msta+tx ti+staltmx+tx x+ti+q̓lsxʷ+tx
give+3p/3p D+person+D D+chief+D P+D+rope+D
"The person gives the chief the rope."

Here the third actant, *q̓lsxʷ*, is introduced by a preposition, *x*. In Lushootseed similar peripheral roles may appear in passivized sentences such as

(16) ʔupusutəb ʔə ti čač̓as tiʔəʔ sqʷəbayʔ ʔə tə čƛ̓aʔ.
throw+[pass] prt D boy D dog prt D stone
"The boy threw a stone at the dog."

where the particle *ʔə* introduces an instrumental role. Note, however, that in general Lushootseed requires the subcategorization of a predicate for some particular actant to be licensed by a verbal suffix, and so constructions such as Bella Coola sentence (15) are more often realized through additional voice distinctions.

The second category of peripheral actants are prepositional phrases. Lushootseed has a set of four prepositions, given in (17).

(17) Lushootseed prepositions

ʔal	in, on, at, when
dxʷʔal	toward, until, in order to, the reason for
tulʔal	from
liɬʔal	by way of, by means of, source, cause

In Bella Coola, prepositional phrases are formed by the addition of one of four clitics, three of which are pre-verbal and one of which is post-verbal.

(18) Bella Coola prepositions

	static	dynamic
centripetal (distal)	ʔaɬ- "at"	ʔuɬ- "towards"
centrifugal (proximal)	x- "via"	-xɬɬ "away from"

These clitics distinguish static/dynamic and a concept Nater terms centripetal/centrifugal, which corresponds roughly to the idea of immediacy or possession as in

(19) (a) sp̓+iiw̓is ta+ʔimlk+tx̌ ta+wac̓+tx̌ x+ta+stn
hit on-head D+man+D D+dog+D P+D+stick
"The man hit the dog on the head with the stick (he had in hand)."

(b) sp̓+iiw̓is ta+ʔimlk+tx̌ ta+wac̓+tx̌ ʔaɬ+ta+stn
hit on-head D+man+D D+dog+D P+D+stick
"The man hit the dog on the head with the stick (that he picked up)."

(c) ʔaɬps ʔaɬ+tu+qaaw̓+tx̌ʷ
ate P+D+salmonberries+D
"He ate the salmonberries (which he found)."

(d) ʔaɬps x+tu+qaaw̓+tx̌ʷ
ate P+D+salmonberries+D
"He ate the salmonberries (which he had)."

Note that Davis & Saunders (1975, 1978, 1984) use the terms distal/proximal for centripetal /centrifugal and relate these conceptually to the use of deictic elements.

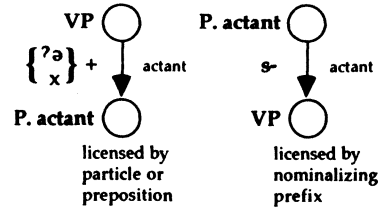
Another interesting property of these prepositions is that in Bella Coola a prepositional phrase may function as a full predicate, as in

(20) ʔaɬ+ti+sunxʷt s+ksnmak+aw
P+D+day npref work+3p pl.
"It is today that they are working."

Here the appearance of the prepositional phrase in sentence-initial position causes the VP to appear with the nominalizing prefix *s-*, indicating the status of the prepositional phrase as a peripheral actant of the verb.

As noted above, the nominalizing *s-* appears in all situations in which a peripheral actant of a VP undergoes predicative focus—that is, when an element that was formerly dependent on the VP now takes that VP as an actant. This gives us an interesting morphological parallel between *s-* and the adjunctive words such as *ʔə* (Lushootseed) and *x* (Bella Coola) in that the particles/prepositions serve to license an "extra" relation "downwards" from the VP, whereas the *s-* prefix serves to license the extra actant relationship "upwards", as in

(21) Peripheral actant relations



Note that in neither case is the valency of the VP actually altered by its relation to the peripheral actant; indeed, in cases where the VP is "saturated" and there is no possibility of its taking a further actant, as in the sentences in (13), the relation becomes a head-modifier relation, marked by an *s-* prefix in Bella Coola (although it is unmarked in Lushootseed).

2.4 Voice and Valency

In addition to predicative focus and subordination, any discussion of the properties of predication in Lushootseed and Bella Coola must address the issues of voice and valency.

The term valency refers to the number of actants that may be associated with or subcategorized for by a given predicative stem. In Bella Coola the property of monovalency is restricted to what Nater classes as "intransitive" stems: these include both intransitive verbs and predicates formed from nominal, adverbial, and other ordinarily non-predicative classes of word; most verbal predicates, however, are underlyingly divalent in that they subcategorize for a semantic agent/experiencer and a patient. Lushootseed verbs, on the other hand, present a somewhat different picture. As in Bella Coola, there is a group of ordinarily monovalent predicates consisting of the truly intransitive verbs such as *ʔuǩʷ* "to go" or *ʔusil* "to dive" and those "non-predicative" words that undergo predicative focus; however, unlike Bella Coola, Lushootseed appears to require that actants over and above the first internal actant (the semantic agent/experiencer) be licensed by the addition of morphological marking to the verbal root—in other words, there appear to be no underlyingly divalent stems in the language at all. This phenomenon will be discussed in more detail in section 2.4.1 below.

Both languages make use of voice and voice-like processes in the formation of predicates, although of the two Lushootseed seems to rely the more heavily on them.[6] The category of voice processes can be defined as those processes which cause a change in the correspondence of semantic roles to syntactic roles of a predicate's actants without significant changes to the predicate's actual meaning. It is convenient when discussing voice to make these correspondences clear through the use of diatheses, which are tables of the form given in (22) below, as described by Mel'čuk (1988)

(22)

Semantic role	X	Y	Z
Syntactic role	1	2	3

In this table, the top row represents the semantic roles of the various actants in the sentence, where "X" is the agent/experiencer, "Y" is the patient, and "Z" may be used to represent any other argument role such as benefactor or instrument that may be represented in the sentence, while the bottom row represents the syntactic roles of the actants, where "1" generally corresponds to the grammatical subject, "2" the direct object, and "3" an indirect object or other oblique complement. The reader will note, however, that to this point the terms "subject" and "object" have been avoided. This is largely due to Hess and Davis & Saunders, who eschew these labels in favour of "agent" and "patient," most likely to avoid some of the implications that the other terms might bring from their use in discussions of other languages more similar to Indo-European. Unfortunately, "agent" and "patient" are semantic rather than syntactic categories, and in a discussion of voice it is essential to be able to draw a clear distinction between thematic and structural roles; for this reason, let us refer to syntactic role "1" as the first internal actant ($A_1 \approx$ subject), syntactic role "2" as the second internal actant ($A_2 \approx$ direct object), and we can use "3" for all peripheral actants, set off here by a double line (see, however, note 10). Thus, the diathesis in (22) represents the basic, unmarked and unaltered diathesis for Bella Coola trivalent verbs. A change in voice results in a change in this diathesis—that is, in a reordering of the elements in one of the rows with respect to those in the other, indicating that actants at the syntactic level have been assigned different semantic roles (note, however, that in order to preserve the internal/external distinction, I will depart from Mel'čuk's practice of rearranging the bottom row of the table and will instead change the order of the elements in the top row).

[6]Note, however, that Nater does not discuss voice (other than passive) in his enumeration of the Bella Coola verbal suffixes and, as he does not give examples of verbs of the various derivations along with their actants, it is possible that there may be verbal inflections other than those listed here which signal change of voice.

2.4.1 Patient-Orientation

As mentioned earlier, it would appear that verbal roots in Lushootseed are underlyingly monovalent and require affixation to license the appearance of additional actants in the sentence. The principal class of affixes which serve this function are used to form stems which Hess dubs "patient/goal-oriented". See, for example, the sentences in

(23) (a) ʔu+ʔuǩʷčəd
[perf]+go I
"I go."

(b) ʔu+ʔuǩʷ ci čačas
[perf]+go D girl
"The girl goes."

(c) ʔu+ʔuǩʷ+txʷčəd
[perf]+go+[caus] I
"I take (something)."

(d) ʔu+ʔuǩʷ+txʷ ci čačas
[perf]+go+[caus] D girl
"(Someone) takes the girl."

While each sentence contains only one overt actant—realized either by the NP (whose syntactic role is determined by the suffix attached to the verb) or by a pronominal particle (whose role is always agent)—the verbs in (c) and (d) to which the causative suffix *-txʷ* have been added are in fact only monovalent at the syntactic level, whereas at the semantic level they are divalent. The superficial monovalency of these predicates seems to be the result of a restriction against realizing them with two overt NP actants; this is confirmed by the existence of marked sentences such as *ʔuʔuǩʷtxʷčəd ci čačas* "I took the girl" (Hess, personal communication) where both actants can be realized internally in overt form as long as one of the actants appears as a pronominal particle.[7] This would give us a derivation such as that in (24), which begins with the basic monovalent diathesis of the verb and transforms it into a divalent stem via a process that superficially resembles a change in voice.

[7]Further evidence for the underlying divalency of patient-oriented stems can be found in the predicative focusing of sentences such as the agent in (1a), which would be realized as

(i) wiẇsu tiʔəʔ ʔučalad tiʔəʔ sqʷəbayʔ.

Here the passive suffix (required to express both over NP actants in the form predicated on the verb) is no longer need to license the appearance of the agent NP, which is now the sentence predicate, and the stem therefore bears only patient marking. Nevertheless, the stem must be divalent in that the predicate still functions semantically as its actant and, furthermore, the fact that it is an *internal* actant is reflected by the absence of the nominalizing prefix.

(24) Lushootseed patient-orientation

X
1

?u?uẋʷ ci čačas

→

X	Y
1	2

?u?uẋʷtxʷ ci čačas

The similarity to more standard voice phenomena results from the fact that the NP *ci čačas* acts as the agent in the uninflected predicate but is interpreted as the patient of the causative form; unlike other voice categories, however, patient-orientation does not alter the roles of actants realized as pronominal particles, which may only appear in the first internal position and, hence in both the inflected and the uninflected stem correspond to X, the agent. This implies that the patient suffix does not, in fact, alter the *semantic* roles assigned to the various *syntactic* roles in the sentence, but instead indicates that overt third persons must occupy the second internal position and thus be interpreted as patients. Other suffixes in Lushootseed that have a similar effect are

(25) Lushootseed patient-orienting suffixes

-txʷ	causative
-s	goal
-c	goal
-dxʷ	lack of control
-d	patient-orienting suffix

While Bella Coola has transitivizing stems, none of these have the same patient-orienting effect, though the causative-passive combines causation and patient-orientation,

(26) ʔaɬps → ʔaɬps+tu+ms → ʔaɬps+mini+c
eat eat+[caus]+1p/3p eat+[pass/caus]+I
"eat" "He feeds me." "(Someone) feeds me."

though it is probably more correct to treat this as a form of the true passive, particularly as it is possible to have an "ordinary" divalent form of the verb stem even in the causative.

2.4.2 Passive, Antipassive, and Middle Voice

An interesting feature of voices in Lushootseed is that they seem to be formed one from the other in sequence. The passive, for instance, is formed from stems with patient-oriented suffixes by the addition of the morpheme *-b*, which combines as follows

(27) Lushootseed passive forms

patient suffix	suffix+passive
-txʷ	-tub
-s	-səb
-c	-cəb
-dxʷ	-dub
-d	-təb

Thus, when attached to a root such as ɬuk̓ʷ "go home", these affixes give us sentences like

(28) ʔu+ɬuk̓ʷ+tu+b ʔə ci luẋ̓ ti sʔuladxʷ
[perf]+go home+[caus]+[pass] prt D(fem) old person D salmon
'The salmon was taken home by the old woman."

In terms of the alteration of the diathesis in Lushootseed, this involves the demotion of the agent in the patient-oriented diathesis to a peripheral syntactic role and the promotion of the patient to the "1" position. In Bella Coola the passive is similar in terms of its syntax, although the morphological marker for passive has been incorporated into the pronominal suffixes, with the result that passivized stems can only be identified by the fact that they make use of a passive pronominal paradigm (see section 2.3 below), as in

(29) nap+i m ti+staltmx+tx x+ti+x̓msta+tx x+ti+q̓lsxʷ+tx
give+3p pass D+chief+D P+D+person+D P+D+rope+D
"The chief was given the rope by the person."

As in Lushootseed, they are derived from a divalent diathesis.

(30) Bella Coola/Lushootseed passive transformation

X	Y
1	2

→

Y	–	X
1	2	3

Note that here the second internal actant has been suppressed, as indicated by the dash (cf. the situation in English); as a result of the demotion of the agent to the periphery of the predicate, it must be realized as an NP adjoined with the particle *ʔə*. The result of this is that the passive in Lushootseed can not be used to express action by first or second person agents, as there is no way in which to express these as NPs and any pronominal particles appearing in the sentence are, as in patient-oriented verbs, interpreted as representing the first internal position, which in the passive belongs to the patient.

Related to the Lushootseed passive is the voice termed by Hess "middle voice". While the derivation of middle voice stems is not clear, their roots appear in association with other derivational suffixes and many of them bear the suffix *-b.*; here the internal actant corresponds to the agent, while the patient role is demoted to a peripheral position, as in

(31) ʔuq̓ʷəlb ci luẋ̓ ʔə ti sʔuladxʷ.
roasted D(fem) old person prt salmon
"The old woman roasted the salmon."

Assuming the predicate here is derived from an underlyingly divalent diathesis, we get

(32) Lushootseed middle voice transformation

X	Y
1	2

→

X	–	Y
1	2	3

As in the passive, first and second persons may not appear in peripheral roles—that is, as the patient—due to the restriction of pronominal particles to first internal position.

Similarly, Bella Coola has the antipassive as in (33) (Davis & Saunders 1984).

(33) (a) tx+is ti+x̌msta+tx ti+q̓lsxʷ+tx x+ti+tq̓ɬa+tx
cut+3p/3p D+person+D D+rope+D P+D+knife+D
"The person cut the rope with the knife."

(b) tx+a+ø ti+x̌msta+tx x+ti+q̓lsxʷ+tx x+ti+tq̓ɬa+tx
cut+[antipass]+3p D+person+D P+D+rope+D P+D+knife+D
"The person cut the rope with the knife."

Here the suffix *-a* causes the demotion of the patient of the (a) sentence to a peripheral role in the (b) sentence, as in (with the third role omitted)

(34) Bella Coola antipassive transformation

X	Y
1	2

→

X	–	Y
1	2	3

This transformation, like the Lushootseed middle voice, serves to demote the patient to the periphery of the predicate.

Bella Coola has another related voice Hess does not report for Lushootseed, the *"-amk"* voice, which promotes peripheral actants at the expense of the patient:

(35) tx+amk+is ti+x̌msta+tx ti+tq̓ɬa+tx ʔuɬ+ti+q̓lsxʷ+tx
cut+[amk]+3p/3p D+person+D D+knife+D P+D+rope+D
"The person used a knife to cut the rope."

which would be derived as in

(36) Bella Coola *-amk* transformation

X	Y	Z
1	2	3

→

X	Z	Y
1	2	3

The semantics of these voices is discussed by Davis & Saunders (1984).

2.4.3 The *yi*-Role

The final voice to be discussed here is the instantiation of the Lushootseed *yi*-role. This voice carries with it the notion of interest and indicates that the action of the predicate is carried out for the benefit or detriment of the actant occupying one of the internal positions; in syntactic terms, this voice has the property of demoting the patient in favour of a peripheral actant which corresponds roughly to the object of "for" in constructions such as "I did it for her". Consider the following examples.

(37) (a) ʔu+ʔab+yi+d čəd ti čačas ʔə ti sqʷəbayʔ.
[perf]+give+[yi]+[patient] I D boy prt D dog
"I gave the dog to the boy."

(b) ʔu+ʔab+yi+d ti čačas ʔə ti sqʷəbayʔ.
[perf]+give+[yi]+[patient] D boy prt D dog
"Someone gave the dog to the boy."

In these examples, where the *yi*-role is realized as a third person NP and appears in association with a patient-oriented suffix, the transformation is as follows

(38) Lushootseed third person *yi*-role transformation

X	Y	Z
1	2	3

→

X	Z	Y
1	2	3

Cases where the *yi*-role belongs to a first or second person show a different pattern:

(39) ʔu+ʔab+yi+təb čəd ʔə ti čačas ʔə ti sqʷəbayʔ.
[perf]+give+yi+[pass] I prt D boy prt D dog
"The boy gave the dog to me."

Here, the verb bears passive marking, which makes the agent peripheral and suppresses the second internal actant; as the *yi*-transformation swaps the patient (in first internal position in the passive) with the *yi*-role actant, the former becomes peripheral and the latter appears in the first internal position required for all first and second person actants.

(40) Lushootseed first/second person *yi*-role transformation

Y	–	X	Z
1	2	3	3

→

Z	–	X	Y
1	2	3	3

2.3 Pronominals

In Lushootseed, first internal actant (A_1) pronominals are particles and generally appear in post-predicative position; the second internal actant (A_2) and other pronominals are either suffixes or prefixes, as indicated in (41).

(41) Lushootseed pronominals and possessives

		A_1	A_2	possessive	coordinate
1p	sg	čəd	-š/-c	d-	čəda
	pl	čəɬ	-(ub)uɬ	(čəɬ)	čɬa
2p	sg	čəxʷ	-(i)cid	ad-	čxʷa
	pl	čələp	-(ub)uɬəd	-ləp	čələpa
3p				-s	

The last set, the coordinates, are used in the second constituent of a compound sentence. There is also a set of person-clitics used in adverbial subordinate clauses which are essentially the words from the A_1 paradigm minus the prefix č-; these are given in section 3.3

below. In addition, Lushootseed also has a reflexive suffix, *-ut*, used in conjunction with the A_1 pronominals (cf. Bella Coola *-cut* below), and a reciprocal suffix, *-agʷəl* "each other".

Both languages have a set of independent predicative pronouns, used emphatically, as members of adjuncts, or as full predicates meaning "I am, you are, etc.".

(42) Independent pronouns

	sg		pl	
	Lush.	B.C.	Lush.	B.C.
1p	ʔəca	ʔnc	dibəɬ	ɬmiɬ
2p	dəgʷi	ʔinu	gʷələp(u)	ɬup
3p	cədiɬ	tix/cix	caadiɬ	wix

Note that Nater classifies the third person predicative pronouns of Bella Coola in a separate class of words called identifiers, which are similar to predicative pronouns, but differ in that they can serve as copular verbs, linking two overt actants in a sentence, as in

(43) (a) tix ɬayx ti+manc
[identifier] D D+father
"This is my father."

(b) tixɬ tx ʔac
[identifier] his things
"These things are his."

Both predicative pronouns and pronominal identifiers may also take verbal suffixes such as the imperative-causative (rendering "let it be that ... !") or *-nix* "to think, consider" to create sentences such as *ʔinunixic ta Frank* "I thought you were Frank".

In ordinary sentences, however, Bella Coola has a complex system of pronominal suffixes consisting of separate paradigms for active, passive, causative, and passive-causative constructions, most likely formed via fusion from various permutations of Proto-Salish pronominal suffixes and passive/causative affixes. For verbs with two actants, the paradigm in (44)—formed from the fusion of A_2+A_1 morphemes—applies. (45) represents the paradigm used with two-actant causative verbs, while (46) presents the passive and passive-causative suffixes. For verbs with only one actant, the paradigm in (47) is used.

(44) Bella Coola A_2/A_1 suffixes.

	A_2					
A_1	1sg	2sg	3sg	1pl	2pl	3pl
1sg	–	-cinu	-ic	–	-tuɬap	-tic
2sg	-cxʷ	–	-ixʷ	-tuɬxʷ	–	-tixʷ
3sg	-cs	-ct	-is	-tuɬs	-tap	-tis
1pl	–	-tuɬnu	-iɬ	–	-tuɬap	-tiɬ
2pl	-cap	–	-ip	-tuɬp	–	-tip
3pl	-cant	-ct	-it	-tuɬt	-tap	-tiɬ

(45) Bella Coola causative/non-passive A_2/A_1 suffixes

	A_2					
A_1	1sg	2sg	3sg	1pl	2pl	3pl
1sg	–	-mi-nu*	-ø-c	–	-min-ap*	-ti-c
2sg	-m-xʷ	–	-ø-xʷ	-muɬ-xʷ	–	-ti-xʷ
3sg	-m-s	-mt	-ø-s	-muɬ-s	-mt	-ti-s
1pl	–	-muɬ-nu*	-ø-ɬ	–	-muɬ-ap*	-ti-ɬ
2pl	-man(c-a)p	–	-ø-p	-muɬ-p	–	-ti-p
3pl	-man-t	-tap	-ø-t	-muɬ-t	-tap	-tit

(46) Bella Coola passive pronominal suffixes

	passive			passive-causative		
	1p	2p	3p	1p	2p	3p
sg	-tinic	-ct	-im	-minic	-mt	-m
pl	-tiniɬ	-tap	-tim	-miniɬ	-tap	-tim

(47) Bella Coola A_1/possessor suffixes

	sg	pl
1	-c	-(i)ɬ
2	-nu	-(n)ap
3	-s	-(n)aw

In (45) and (46), when A_1 and A_2 reference coincide the reflexive morpheme *-cut-* is used with the A_1 suffixes; second person-A_2 suffixes reverse the usual order of morphemes. Bella Coola also has a pair of reciprocal suffixes, *-tmaxʷ/-nmaxw*—the first expressing control or intentionality and the second expressing inadvertence or lack of control.

2.4 Questions

Yes/no questions in Lushootseed are quite straightforwardly marked by the interrogative particle *ʔu*, usually placed after the predicate or pronominal particle; there is generally no other difference between the question and the corresponding declarative sentence. Similarly, Bella Coola uses the enclitic *-a* affixed to the predicate to indicate interrogation, often in combination with other clitics such as *ka* (irrealis) which may be affixed to nominal stems with the meaning of "any" as in

(48) ʔaɬi+a ʔala+ʔawxʷa ka+caacaws
exist [interrogative] here [irrealis] church
"Are there any churches here?"

Wh-questions in both languages are only slightly more complex. Lushootseed requires the predicative focus of Wh-elements such as *gʷat* "who" or *stab* "what"; the verbal predicate of the corresponding declarative sentence then appears preceded by the hypothetical/remote deictic *kʷi* (see section 3.1), as in

(49) (a) ʔuʔuəy̓dub ʔə ti sqʷ əbayʔ ci č̓ač̓as
find prt dog D(fem) young person
"The dog found the girl."

(b) gʷat kʷi ʔuʔuəy̓dub ʔe ti sqʷəbayʔ
who D find prt D dog
"Who did the dog find?"

Other Wh-words in Lushootseed (from Kincade 1994) are:

(50) Lushoostseed Wh-words

ʔɪdigʷat	"say what"
k̓ʷid	"how many"
čad	"where"
(ʔə)x̌ɪd	"why"
čal	"how, why" (Northern Lushootseed)
x̌id	"how, why" (Southern Lushootseed)
ʔɪɬčád	"which"
pə(d)ɬab/pəɬab	"when"

These, like *gʷat* and *stab*, are predicative and require the VP to be realized as an actant preceded by a deictic marker; however, since these actants are peripheral, the declarative predicate is nominalized with the *s-* prefix, as in

(51) ʔəs+čal+əxʷ kʷi ɬu+s+huy+s.
[stative]+how+now D [irrealis]+npref+manage+3p poss.pro
"How will he manage?"

Bella Coola forms a wide range of Wh-elements with the addition of an enclitic *-(l)ks* (which becomes *-ʔi* when associated with other clitics) to a group of stems that Nater classes with the identifiers (see 2.3 above). A list of interrogative elements is given in (52).

(52) Bella Coola interrogatives

stamks	"what"
waks	"who"
kaks	"which"
ʔinutʔiks	"say what?"
wa(l)ctu- -ks	"what is ...'s name"
maaskʔuks	"how much"
ʔastamks	"where's"
ʔustamks	"whither"
paxʷʔuks	"when"
ʔalacixʷʔiks	"how/why; what is he doing"
ʔaɬʔalacixʷʔiks	"how is he doing?"
kanmxʔiks	"what is his nationality?"
waɬʔiks	"whose"
wikaɬɬʔuks	"whence"

When the *-ks* is dropped, many of these stems serve as indefinite expressions with the meaning of "some" or "any" and also function like relative pronouns in English do in the reporting of indirect speech; as in Lushootseed, all of the interrogatives serve as full predicates, and can take pronominal suffixes. In addition, the *-ks* morpheme can appear on verbal stems in combination with other affixes to form questions, as

(53) (a) stam+nix+ixʷ+ʔiks
what +think+3p/2p [interrogative]
"What do you think it is?"

(b) ʔaɬʔalacixʷ+liwa+nu+ks
how+[semblative]+2p [interrogative]
"How are you feeling?"

2.5 Negation

Lushootseed makes use of two patterns of negation. The first involves the placement of the negative adverb *xʷiʔ* in sentence-initial position and the affixation of a proclitic *lə-* to any following adverb or to the predicate. This has the effect of negating the predicate in much the same way as negation works in more familiar Indo-European languages, although in Lushootseed sentences negated this way seem to carry an imperative weight that is expressed in these languages by other means.

The second type of negative is the existential negative. It too makes use of the sentence-initial *xʷiʔ*, but in these constructions the negative adverb becomes the sentence predicate and the predicate of the corresponding declarative sentence is nominalized with *s-*, appearing with the hypothetical deictic *kʷi* and the subjunctive prefix *gʷ-*; as with other peripherally focused adverbials, any pronominals associated with the former predicate of the declarative sentence are realized as pronominal subordinate clitics, as in

(54) (a) ʔu+ʔəɬed čəxʷ
[perf]+eat you
"You ate."

(b) xʷiʔ kʷi gʷ+ad+s+u+ʔəɬəd
[neg] D [subjunctive]+2p+npref+[perf]+eat
"You did not eat."

These types of sentences have the import of negating the existence or truth of the statement in its entirety; it can be used to deny the existence of something as well as to negate the possession of something (cf. the Russian possessive expressions of the form *U menya (net)* ... "There is (not) to me ...").

Negation in Bella Coola works much the same way, making use of the morpheme *ʔaǰʷ*. In forming the standard type of negative sentence, *ʔaǰʷ* is used as an adverb and is placed sentence-initially (an unusual place for an adverb in Bella Coola), the sentence predicate appearing in association with the irrealis *ka*. As in Lushootseed, *ʔaǰʷ* may also appear as a predicate in existential negatives, although it appears from Nater's few examples that the use of these is restricted to the denial of the existence of objects and it is not used to subordinate declarative predicates. *ʔaǰʷ* may also be used attributively in constructions such as

ti+ʔaxʷ+ɬayx ksnmak "this one who is not working (*ksnmak*)" as well as to form complex verbs like *ʔaxʷlit* "to say (*lit*) no, to deny". Predicative *ʔaxʷ* can also take imperative-causative verbal endings to form negative imperatives.

2.6 Possessives

In Lushootseed the possessor-possessed relation is marked in the same way that the dependency of an actant on a nominalized predicate is: if the possessor is represented by a pronominal element, it takes the form of a suffix attached to the possessed (that is, the governing NP is marked in much the same way that a verb in another language might bear agreement features for a subject or object), whereas if the possessor NP is overt, it is adjoined to the possessed by the ʔə particle in exactly the same way that a peripheral actant would be adjoined to a VP, for example,

(55) (a) x̌ʷubt+s
"his paddle"

(b) x̌ʷubt ʔə ti hədli
"Henry's paddle" (rare)

There is a similar parallel between Bella Coola possessives and intransitives as well. Here, a single paradigm of pronominal suffixes is used to represent agent/experiencer in intransitive predicates and to indicate possession when used with NPs; for example,

(56) (a) staltmx+c
chief+I
"I am chief."

(b) ti+staltmx+c
D+chief+I
"my chief"

(c) ti+staltmx+s Mary
D+chief+3p Mary
"Mary's husband"

These suffixes, unlike the Lushootseed possessives, can cooccur with their NP antecedents. The difference between the two languages resides in the fact that in Lushootseed the possessor seems to be relegated to a peripheral role with respect to the possessed, while in Bella Coola the possessor seems to occupy the first internal position generally reserved for the agent/experiencer.

3 Morphology

It is in their morphology rather than their syntax that the differences between the two languages become apparent. Perhaps the most striking of these is the general trend in Bella Coola towards fusion and incorporation of morphemes that appear as distinct suffixes, particles, or separate words in Lushootseed, possibly a result of influence on Bella Coola from neighbouring Wakashan languages. This synthetic tendency in the language is

further compounded by its unique phonology, marked by a strong tendency towards the elision of vowels and minimalist prosody which lead Newman (1947) to declare that the language had, in fact, no syllable structure at all; although perhaps extreme, Newman's observation does help to explain the wide ranging disagreement among researchers as to the phonological status of various morphemes (see, for example, note 17). Another distinction between Bella Coola and Lushootseed—quite possibly another example of Wakashan influence—can be found in the overall predominance of suffixation in Bella Coola over the use of prefixes; Newman (1969) reports no more than half a dozen prefixes in active use in the language and, although Nater lists considerably more, a look through the morpheme lists in Nater's grammar reveals the predominance of suffixal over prefixal material. Nevertheless, in other respects the two languages are highly similar, and the best example of this similarity lies in their systems of deixis, discussed below.

3.1 Deixis

Both Lushootseed and Bella Coola make use of pre-nominal deictic elements. These elements typically have two forms, one unmarked for gender and another (formed by the insertion of the infix -s- after the initial consonant of the morpheme) indicating that the referent is female; in both languages this is often the only method of distinguishing male from female, and gender seems to be almost entirely natural.[8] Bella Coola and Lushootseed both distinguish proximal and distal referents as well. The Lushootseed deictic elements are given in (57) and (58).

(57) Lushootseed adjectival deictics

	distal	proximal	unique	non-contrastive	hypoth/remote
non-fem	tiʔiɬ	tiʔəʔ	ti	tə	kʷi
fem	ciʔiɬ	ciʔəʔ	ci	cə	kʷsi

The distal and proximal forms may be used on their own as pronominals.

(58) Lushootseed adverbial demonstratives

	distal	proximal	remote
non-fem	tiʔiɬ	tiʔəʔ	kʷədi
fem	ciʔiɬ	ciʔəʔ	–

The deictic system of Bella Coola is even more involved. In addition to the "indefinite" forms *ti-/ci-* which resemble the Lushootseed unique-adjectival deictics, Bella Coola has large set of morphemes consisting of prefix-suffix pairs which are applied to a noun and

[8]Nater states that Bella Coola does have grammatical gender and posits three classes—female, non-female, and neutral. The neutral class, however, has no forms of its own but instead alternates between feminine and non-feminine forms; furthermore, all of Nater's examples of this alternation seem to indicate that this alternation is, in fact, the result of application of natural gender, as in *ti+skma* "bull moose"/*ci+skma* "cow moose". As Nater himself points out, membership in a given gender class is predictable on a semantic basis: the only example he gives of what might be purely grammatical gender is *ci+waac* "wristwatch". Thus, it seems preferable to follow Davis & Saunders and treat Bella Coola gender as a natural, feminine/non-feminine distinction. Hess (personal communication) notes that in Lushootseed the feminine deitic *ci-* is used occasionally with genderless objects (for example by men referring to their hunting canoes) and small animals.

carry the notion of definiteness. In phrases consisting of a noun and modifiers, the prefix is applied to the modifying element(s) as well as to the noun, but the suffix appears only on the noun, which is typically phrase-final (see example (9b)). The paradigm for these elements distinguishes gender/number, distance, and demonstrative/non-demonstrative; the forms are given below.[9]

(59) Bella Coola deictic circumfixes

	proximal		middle		distal	
	demon	non-dem	demon	non-dem	demon	non-dem
non-fem	ti—ɬayx	ti—tx	ta—ɬax	ta—ɬ	ta—tix	ta—tx̌^{w}
fem	ci—cayx	ci—cx	ʔiɬ—ʔɬayɬ	ʔiɬ—ɬ	ʔiɬ—cix	ʔiɬ—ʔiɬ
plural	wa—ʔac	wa—c	ta—ɬax̌^{w}	ta—ɬ	ta—tax̌	ta—tx̌^{w}

The final function of deictics in both Bella Coola and Lushootseed is that mentioned earlier, where the deictic elements serve to mark NPs and VPs as actants of predicates.

3.2 Inflectional Affixes

Bella Coola and Lushootseed both have rich affixal systems which are used to express a wide and varied range of concepts. (60) below presents a schema for Lushootseed inflectional affixes based on Hess (1993).

(60) Lushootseed inflectional affixes

Class I General	Class II Person	Class III Nominalizing	Class IV Verbal	stem	Class IV Verbal	Class II Person
g^{w}- x̌u- tu- bə- ɬu-	d- ad-	s- dəx^{w}-	ʔu- ʔəs-/as- lə-/ə- ləs- ləcu-		-(ə)b	-ləp -s -š/c -(ub)uɬ -(i)cid -(ub)uɬəd

Affixes in Class I may be applied to both verbs and nominals and more than one of them may be affixed to a given stem, generally in the order indicated in the table; Class II affixes are the possessive pronominals, also used with the Class III Nominalizing prefixes discussed above. Class IV affixes are exclusively verbal and are affixed directly to the stem; the prefixes serve as aspect markers and the suffix is the passive marker discussed in 2.2.

In contrast to Lushootseed, Bella Coola makes use primarily of suffixation, as indicated in the schema adapted from Newman (1969) given in (61).

(61) Bella Coola suffixation

Root	Lexical	Voice	Pronominal	Aspectual	Modal

[9]In addition to its locative meaning, the proximal/middle/distal distinction also distinguishes among objects on the basis of reality/familiarity/definiteness; see Davis & Saunders (1975) for an account of the semantics of Bella Coola deixis.

Unfortunately, Newman gives no examples of morphemes belonging to these categories and, as Nater does not classify Bella Coola morphemes according to function, it is difficult to know precisely which Bella Coola suffixes Newman would categorize as belonging to which class. For this reason, the morpheme lists will use the Lushootseed system in (60) as a point of departure for comparison, with Bella Coola morphemes grouped according to their semantic and combinatorial similarity to Lushootseed rather than according to language-internal paradigms or categories.

3.2.1 Verbal Affixes

In Lushootseed the verbal prefixes from Class IV in (60) form a mutually exclusive set whose members are affixed directly to a predicate stem; these prefixes are purely aspectual in nature; as in Bella Coola, tense is not expressed in the verbal morphology.

(62) Lushootseed aspectual prefixes

ʔu-	perfective
ʔəs-	stative
lə-	progressive
ləs-	progressive state (from "lə- + ʔəs-")
ləcu-	continuous

Bella Coola also has a set of verbal prefixes,

(63) Bella Coola verbal prefixes

tm-	just, only
tam-	cumulative, iterative
sm-	already, right away, from the beginning
x̌am-	the same
ʔaɬ-	progressive state[10]
ʔix-	distributive
nus-	customary
ʔanu-	continuative[11]

With the exception of *ʔaɬ-* and possibly *ʔanu-*, however, these prefixes do not correspond semantically to the Lushootseed affixes, although Nater classifies them as aspectual. On the other hand, the following verbal suffixes, which Nater does not classify as aspectual, do seem to express aspect or aspect-like qualities:

(64) Bella Coola aspectual suffixes

-a	present progressive
-tnm	habitual
-alus	desiderative
-alst	deprivative

[10]This prefix may also be used in front of uninflected verbal stems to form nouns, as in *ʔaɬ+quɬ* (to write) = "something written, a document, etc.".

[11]The last two are from Newman (1976), who adds that of the verbal only *ʔaɬ-* is productive and all are rare.

-lx/-alx	inchoative
-ɬ/-ɬɬ	past/distant past (rare) (Newman 1976)

There are also two circumfixes that fall into this category—*nus-* X-*(mx)* "always X-ing" and *nu-* X *-ik*, another desiderative.

3.2.2 General Affixes

The five Class I affixes, classified here as "general", are used to express various moods or states that pertain to the word being modified and may be added to both verbal and nominal stems. In Lushootseed these are:

(65) Lushootseed general prefixes

g̱ʷ-	subjunctive
ƛu-	habitual
ɬu-	irrealis
tu-	past
bə-	additive

Bella Coola has a set of morphemes of this type as well, although most are suffixes.

(66) Bella Coola general affixes

ka-	irrealis[12]
-ɬ	"disconnection", change, past
-i(i)/-y(i)	diminutive
-uks	a number of, plurality
-liwa	semblative
-am/-anm	inchoative

Like the Lushootseed affixes, these may be attached to both nominal and verbal stems.

3.3 Clitics

As noted above, where Lushootseed tends to make use of prefixes and various types of adverbials and particles, Bella Coola tends to rely on suffixation or encliticization to express the same sorts of ideas. Bella Coola enclitics may occur in strings and are organized into a strict ordinal hierarchy as indicated in the table below (adapted from Nater 1984).

(67) Bella Coola enclitics

A	-a	interrogative
	-kʷ	quotative
B	-(?)l-	interrogative
C	-ma/-m-	maybe
D	-?i(t)	coercive/imperative
E	-a-lu/-aɬtu	unreal

[12]According to Nater, this is a proclitic rather than a true prefix. Newman (1969a) claims that it is a particle.

F	-(?)i-	interrogative
G	-(s)tu	emphasis
	-su	surprise
H	-lu/-ɬ(l)u	still, yet
I	-k̓ʷ/k̓u	repeatedly
J	-ya	confidential
K	-(s)c̓(n)(i)	now
L	-k(a)	contrastive
	-ks	interrogative
	-ck(i)	indefinite
	-c̓akʷ	optative
M	-tuu	exactness

Nater also lists three clitics associated with imperatives which do not appear in his hierarchical list, these are: *-?isu* repetitive imperative ("do it again!"), *-?iɬu* "do it first, for a while", *-na* "please" (following an imperative). The semantics and combinatorial properties of Bella Coola clitics are extremely complex and are discussed at length by Nater.

The use of clitics in Lushootseed, on the other hand, seems to be limited to the morpheme *-axʷ* "now" (which is appended to verbs or adverbs) and a set of person clitics appearing in adverbial subordinate clauses (see section 2.2.2). These are given in (68).

(68) Lushootseed subordinate clause person clitics

	1p	2p
sg	ad/əd	axʷ
pl	aɬi/əɬi	aləp/ələp

Note that these endings appear to be the same as the A_1-pronominal paradigm presented in (41) above, minus the prefix c̓-.

3.4 Adverbials

In Lushootseed there are two types of adverbial morphemes, one of which serves exclusively as a predicate adverb and the other which may also serve other roles in the sentence. Members of the first set are:

(69) Lushootseed predicate adverbs I

cic̓kʷ/cay	very
c̓kʷaqid	always
da?xʷ/daw̓	just now
dəxʷ	[?]
gʷa?xʷ	eventually, soon
put	very much so, in a great way
tiləb	immediately, bluntly; right there
x̌ʷəɬ ti	as though, like
x̌ʷul̓	just (that and nothing else)

The second set is given in (70).

(70) Lushootseed predicate adverbs II

bək̓ʷ	all	hiqab	excessively, too (much)
cəɬuɬ	previously, in advance	x̌aɬ	also, too
cukʷ/cugʷ	only, uniquely	x̌ub	well; ought, should
day̓	only, uniquely, separate; foremost, especially; completely, all	tux̌ʷ	in contrast to the usual or expected
gʷəhaw̓ə	it seems	xʷɬub	ultimately, in fact
ha?kʷ/hagʷ	ago, long time	xʷi?	no, not
ha?ɬ	well, good	xʷu?ələ?	maybe, perhaps
(hə)la?ab	really, a lot	yaw̓	only if, not until
hikʷ	big, very		

Nater lists relatively few adverbs proper for Bella Coola and all denote direction.

(71) Bella Coola directional adverbs

?uux̌nk	downwards
?ux̌uk̓	upwards
tqʷnx̌	hither
txuli	this way, here
txula	that way, there
tx̌ʷnayaax̌	across the river

Other adverbials are formed from various expressions of time and location; when these expressions do not appear predicatively, they are treated as peripheral actants and generally appear sentence-finally. Note also that many of the adverbial functions listed here for Lushootseed seem to correspond to the functions of the enclitics in (67) and certain of the derivational affixes listed in the Appendix.

3.5 Particles

Lushootseed employs a system of five predicate particles that are used to express the attitude of speakers towards the content of what they are saying. These particles are

(72) Lushootseed predicate particles

u?xʷ	continuity ("still")
dˀəɬ	probability ("must be")
k̓ʷəɬ	quotative ("they say")
əw̓ə	surprise
six̌ʷ	disgust

Also included in the class of particles are the interrogative particle, *?u* (section 2.4), and the pronominal particles (see section 2.3). Note that many of the functions of these words in Lushootseed are fulfilled in Bella Coola by the enclitics listed in (67).

There are three classes of Bella Coola words that Nater classifies as particles; none of these, however, corresponds either in function or syntactic category to the Lushootseed

morphemes listed here. The first group are the non-predicative adverbs (see 71 above) and the second are the conjunctions, *?n/?in* "and", and *pux̌s* "plus". The last group are interjections, of which Nater lists some 12, including words such as *yaw* "hello," *?aw* "yes," and *?ax̌ˀa* "yuck". On the other hand, Newman (1969a) lists the morphemes *s* "and," *?aɬ* "in, on, at," *?iluk* "in spite of," and *ka* (irrealis) as particles as well, while Davis & Saunders (1979)—who also class *ka* as a particle—add four more morphemes to the list:

(73) Bella Coola particles

čak̓ʷ	futile desire
lu?	expectation
alu	expectation not fulfilled
luc̓	unexpected outcome

Davis & Saunders (1979) discuss the semantics and pragmatics of these particles, which correspond roughly in function to the Lushootseed particles in that both sets of morphemes express speaker-attitude or the relationship of the speaker to what is being said.

4 Word Order

As mentioned above, the basic unmarked word order for both languages appears on the surface to be VSO (or, more precisely, Predicate – Agent/Experiencer – Patient); however, it might be more accurate to say that the overall word-order is Comment – Topic and that the predicate-initial pattern is a consequence of the requirement to predicate the Comment portion of the sentence. Of the two languages, Bella Coola appears to be the more inflexible with respect to the predicate-initial pattern; this may be due in part to the fact that historically elements such as particles and adverbs that once appeared sentence initially may have been reduced to prefixes and proclitics. Lushootseed, on the other hand, regularly allows the fronting of adverbs and particles, as in

(74) x̌ub čəɬ ?u x̌ʷuɬ ɬuɬuk̓ʷ.
ought we [interrogative] just go-home
"Should we just go home?"

Here we see not only the fronting of the adverb, but the fronting of the particles *čəɬ* and *?u* (which normally follow the verb) as well; when one or more adverbs appear at the head of a sentence, these particles must come after the first adverb.

In terms of what follows the predicate, both languages almost invariantly order Agent NP actants before Patient NP actants and VP actants before NP actants; once again, Bella Coola is the less flexible of the two. Because Lushootseed makes use of pronominal particles, there tends to be some variation in the Agent >> Patient precedence, as the pronominal particles must appear closer to their predicate than an NP (irrespective of their thematic roles), as must the interrogative particle.

In both languages, modifiers of nominal elements (both adjectives and adjective clauses) precede the element they modify; with the exception of adverbial words in Lushootseed, both languages place adverbials and prepositional phrases in post-predicate position, generally at the end of the sentence. Deictic elements are phrase-initial in Lushootseed and both phrases-initial and final in Bella Coola.

Appendix: Bella Coola Derivational Affixes

Bella Coola relies heavily on derivational affixes for a wide range of functions that in Lushootseed are accomplished by clitics, articles, or other means. For the purposes of comparison to the Lushootseed morphemes in section 3, the productive inflectional affixes listed by Nater are given here.

(75) Bella Coola derivational prefixes

verbalizers—prefixed to intransitive stems to form verbs

txaɬ-	"coming from" (with place)
txuɬ-	"going to" (with place)
tam-	"to make" (affixed to what is made)
tix-	"to catch (a number of)" (affixed to numbers)
tutu-	"to prepare, work on" (affixed to materials)
sti-	"to have a physical asymmetry" (affixed to body parts, etc.)
kaɬ-/kas-	"to gather, hunt, harvest" (affixed to plants, animals, etc.)
k̓iɬ	"to lack" (with nouns)
xɬ-	"to possess" (with nouns)
kuɬ-	"to have a lot" (with nouns)
ʔas-	"to have, contain, use" (with nouns)
ʔasi-	"to consider the taste of something as ..." (with food)
ʔanus-	"to have lost" (with nouns)
ʔit-	"to speak the language of" (with name of ethnic group)
ʔit-	"to wear" (with clothing)
ʔis-	"to gather, consume" (with flora or plant-products)
ʔus-	"to put on" (with clothing)
ʔun-	"to be fond of" (with intransitive verbs and food nouns)
ʔunus-	"to go somewhere for the purpose of" (with intransitive)

spatial prefixes

tx-	"the place where . . . is located" (with location)
txu-	"towards an area" (with location)
tx̌-	"from an area, ethnic group" (with location)
tx̌u-	"towards a geographical area" (with location)
ʔa-	"to be located in" (with location)
ʔu-	"direction, motion towards" (with location)
stam-	"together with"
nu-	"inside, in the water"
kaɬ-	"under, downwards"
ʔanu-	"having no fixed location" (with verbs)
ʔinix-	"to be extra"
ʔus-	"top surface"

(76) Bella Coola derivational circumfixes

ka- -s	"next" (forms adverbs from nouns denoting time periods)
kanus- -m	"having a certain smell/taste" (derives verbs and adjectives)
(ʔaɬ+)tu- -a	"last" (forms adverbs from nouns denoting time periods)

(77) Bella Coola nominalizing suffixes

-ta/-sta	"that which is used for" (with verbs)
-ma/-ama	"that which is used for" (with verbs)
-lik^{w}/-liik^{w}	"performer of an action" (with verbs)
-ɬp/-aɬp	"tree, plant" (with names of fruits and edible parts of plants)
-ɬp	"use" (with nouns)
-mx	"inhabitant, native of" (with location)
-mc	"all one's relatives" (with family)
-tam	"time, season, month of" (with nouns)

Another set of derivational suffixes is exclusively verbal and corresponds to the Lushootseed suffixes of the *-tx^{w}* class. These are

(78) Bella Coola verbal suffixes

-m	intransitivizer; activizer; medium voice
-a	active-intransitive
-amk	adjunct-incorporative
-n	transitive
-amx^{w}	autonomous-transitive
-cut	reflexive
-max^{w}	reciprocal
-(s)tu/-nix	causative-transitive
-tnm/-nm	causative-intransitive
-(l)ayx	passive-lack of control-intransitive
-ay-nix	passive-lack of control-transitive
-alst	deprivative
-a(n)m/-(a)lx	inchoative
-(t)-nm	habitual
nus- -mx	predilectional
(nu-) -ik	desiderative
-alus	desiderative
-lit	imitative

Many of these affixes are most likely fusions of historically distinct morphemes; one indication of this pointed out by Nater is the division of the verbal suffixes into a *t*-class and an *n*-class, where the verbal stems beginning in *t* express control or intention whereas the *n*-initial suffixes lack this connotation or imply the opposite.

Abbreviations

1p	first person	npref	nominalizing prefix
2p	second person	P	preposition
3p	third person	pass	passive
caus	causative	perf	perfective
D	deictic	poss	possessive
fem	feminine	pro	pronoun
neg	negative	prt	particle

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