

A Conceptual Approach to Lexical Categories in Bella Coola and Lushootseed¹

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0 Lexical Categories

As a first step in the grammatical description of any language, it is necessary to define the basic lexical units whose combination and recombination form the basis of the syntax: unfortunately, the definition of lexical categories in Salishan languages is no mean feat. In this language family, traditional approaches to the lexicon based on the syntactic distribution of lexical items are frustrated by the lack of extensive morphological marking of lexical category and the ability of these languages to use any of various lexical categories to fill syntactic roles that, in Indo-European languages, are reserved for a specific class or classes of words. This unusual flexibility has led a number of researchers to make radical claims about the lexical inventory of Salish. Kinkade (1983), for instance, proposes that the lexicon be divided only into "predicates" and "particles" (words that can not be predicates), while Nater (1984) argues for a fundamental distinction in Bella Coola between "transitive" and "intransitive" roots. Both of these authors argue that the morphology and syntactic distribution of lexical items provides evidence only for these distinctions, leaving no role in the languages for the more traditional distinctions between "verb", "adjective", and "noun". Such extreme structuralism, however, begs the question of the fundamental underlying meaning of these traditional lexical categories—that is, by defining the class to which a word belongs solely on the basis of its syntactic distribution, the idea of lexical category loses any semantic or conceptual basis that it might have had. An alternative to this would be to approach the whole issue from the opposite direction and to begin by defining lexical category on just such a conceptual basis, then allowing these considerations to drive the syntax. As will become clear in the course of the discussion below, when applied to Lushootseed and Bella Coola this approach delivers some interesting results and shows the two languages not only to be more similar to each other than might have been hitherto supposed, but also reveals a great degree of coincidence between the syntactic patterning of our conceptually-defined lexical categories and that of their counterparts in a variety of languages.

In terms of theoretical approach, what is needed to define lexical categories on a conceptual basis is a framework which in some way equates the structural properties of a language—including its lexical categories—with its semantics. One such approach is Cognitive Grammar (Langacker 1987, 1991). Cognitive Grammar (CG) treats language as a product of the ordinary cognitive functions of the human mind, and it is founded on the notion that the grammatical forms and processes of language are fundamentally symbolic and meaningful. Another fundamental notion of Cognitive Grammar—and one that is of special relevance here—is the basic distinction it makes between "things" on the one hand and "relations" on the other. This conception is founded on what Langacker terms the "billiard-ball" model of the universe—the cognitive construal of the universe as consisting of discrete objects or "things", their relations (spatial, temporal, etc.) to one another, and their energetic interactions over time. Because the units of language in CG must reflect the basic cognitive organization of this view of the universe, the individual morphemes must reflect one of the two basic categories—"things" (nouns) or "relations". Relations are further subdivided into atemporal (adjectives, adverbs, prepositions) and temporal relations (verbs). A lexical item or "predication" will generally represent a class or "type" of entity

(1) Semantic poles of relational predications



(e.g. "fish" represents the class of things which are felt to be sufficiently related to the prototypical fish) and all languages have processes whereby a "type" can be linked to a specific "instance" (that is, the type "fish" can be linked to a specific object which is thereby identified as an instance of the category "fish"). An instance of a type can be further specified via a process called "grounding" which serves to "establish the location" of an instance with respect to the "ground" of the utterance—"the speech event, its participants, and its immediate circumstances" (Langacker 1991: 548). For a noun or nominal expression, grounding is usually accomplished by means of a determiner or deictic (in those languages that have them); for a clause, grounding is accomplished by the realization of tense, modality, or (in the case of Bella Coola and Lushootseed, which have neither) the full specification of all event-participants.

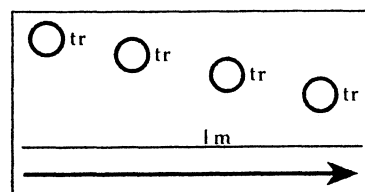
In terms of representation, the semantic meaning or "pole" of an object or "thing" is realized schematically as a plain circle; the representation of relational predications, on the other hand, is somewhat more complex as it necessarily involves at least two entities—a "thing" which serves as the clausal "figure" and some other entity whose relation to the clausal figure is the meaning of the predication. This is shown schematically in (1). The predication in (1)(a) is one which expresses the relation between an object—the clausal figure or "trajector" (tr)—and some other entity or "landmark" (lm) which is not itself a "thing"; examples of this type of relational predication include colours (which represent the location of the trajector on the spectrum of colours—see (50)(a) below), other adjectives expressing size, age, quality, etc., and most adverbs. The predication in (b), on the other hand, expresses a relation between two objects, the trajector—who represents the principle focus of the expression—and the landmark, whose relationship to the trajector constitutes the meaning of the morpheme. The most common representative of this type of atemporal relation in English is a preposition such as "over" in "the canopy over the doorway" which serves to locate the trajector—"the canopy", realized in ordinary syntactic terms as the head of the NP—relative to the landmark ("the doorway", realized as complement of the PP).

Like atemporal relations, verbs also express relations between an object (its trajector) and some sort of landmark—verbs, however, are conceived of as temporal relations and so are generally represented as a series of component relations or states over time, as in (2), which represents the verb "fall". Here the trajector is represented at various points in time (shown by the horizontal arrow) during its descent towards the landmark, which would be conceived of as some unspecified surface or point below the original position of the trajector.¹ Naturally, the landmark of a relational predication could just as easily be another object, as in the verb "to approach", where the changing position of the trajector is defined with respect to the object being approached. Grammatically, the trajector of a verb will be realized in a clause as the grammatical subject and the landmark (if it is a thing) will typically be realized as the direct object. This is illustrated in (3), which represents a partial "compositional" schema of the sentence "the plane approaches the runway". In this diagram, the schematic form of the verb "approach" is "elaborated" by the specification of the participants in an instance of "approaching"—in this case "plane" and "runway", which are represented as schematic "things" at the first (lower) level of

¹ I am indebted to Leslie Saxon and Thom Hess for their comments and suggestions, as I am to Tom Hukari for pointing out a gross over-

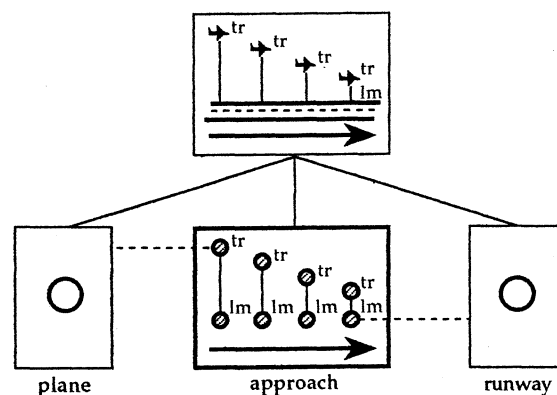
¹ Note that these particular characteristics of the landmark are not explicitly represented in the diagram beyond the fact that the notion of "below" is implied by its physical layout on the page. This is typical of representations in CG, which do not strive to be complete (or even unique) but instead serve as shorthand devices for the representation of key concepts in the context of a particular discussion.

(2) “fall”



composition. The participants are incorporated into the schematic form of the verb by being associated with specific elaboration-sites (the shaded circles) with which they are placed in one-to-one correspondence (indicated by the dashed lines). The result is the composite predication shown at the next highest level, which has incorporated the meaning of the two nominals into that of the verb. In English, the next step in the composition of the event as a whole would be the specification of a particular and unique instance of “the plane approaching the runway” by grounding the clause in time and modality, this specific event being the reference or the “profile” of the utterance. In CG, the same event may be profiled in different ways, with different figures playing the role of landmark or trajector (*cf.* “the plane [tr] approached the runway [lm]” and “the runway [tr] was approached by the plane”)—such differences in profiling play a crucial role in Cognitive Grammar and figure prominently in many aspects of the discussion below.

(3) “the plane approaches the runway”



1 Noun-Verb Distinctions

One of the more contentious issues in the study of Salish (and the neighbouring Wakashan and Chemakuan) has centred on the question of whether or not a fundamental distinction exists between the categories of verb and noun in these languages. While it is often assumed that such a distinction is a universal one (*e.g.* Chomsky 1965; Schachter 1985), a number of researchers (*e.g.* Kuipers 1968; Kinkade 1983; Jelinek & Demers 1994) have claimed that this generalization does not hold for the Salishan family as a whole, and specific assertions to this effect have been made about Bella Coola by Nater (1984). Lushootseed data is used by Kinkade (1983) to argue against noun-verb distinctions, although it is also used by van Eijk & Hess (1986) to demonstrate the existence of these categories, a position that seems to be finding some favour in a number of more recent works (*e.g.* Kroeber 1991; Mattina 1994; Demirdache & Matthewson 1994; Davis & Matthewson 1995). The central and most prevalent argument for the lack of a noun-verb distinction

in Salish and other languages of the Northwest is an essentially syntactic one, based on the ability of “nouns” and members of other “non-verbal” lexical categories in these languages to function as sentence predicates. Kinkade (1983) offers data from several Salishan languages, including:²

(4) Kalispel

- (a) $\text{po}\acute{x}\acute{u}t+s$
father+3po
“[he is] his father”
- (b) $\text{an}+\text{po}\acute{x}\acute{u}t$
2po+father
“[he is] your father”
- (c) $\text{k}^w+\text{in}+\text{po}\acute{x}\acute{u}t$
2s+1po+father
“you are my father”

Spokane

- (d) $\text{pp}\acute{a}tiq\varsigma \text{ } \acute{t}u \text{ } sk^w\acute{e}+t+s$
that name+[strative]+3po
“Ppátíqς was his name”
- (e) $\text{nt}\acute{a}l\acute{a}ne? \text{ } \acute{t}u? \text{ } sx^w+k^w\acute{u}l+mn$
that [agt]+do+[instrument]
“It was Ntáláne? who was the helper”

(Kinkade 1983: 28 – 29)

This type of sentence is also well attested in Bella Coola and Lushootseed:

(5) Bella Coola

- (a) $\text{man}+c$
father+1s
“I [am] a father”
- (b) $\text{?inu } ti+\text{man}+c+tx$
2s D+father+1po+D
“you [are] my father”

(Nater 1984: 33)

- (c) $ti+\text{?imlk}+tx \text{ } ti+\text{sp}+is \text{ } ci+xnas+cx$
D+man+D D+hit+3s-3s D+woman+D
“the man [is the one] the woman is hitting”

(Davis & Saunders 1978: 39)

Lushootseed

- (d) $\text{stub}\check{s} \text{ } \check{c}\acute{a}d$
man 1s
“I [am] a man”

²The following abbreviations are used in this paper: agr = agreement; agt = agent; caus = causative; D = deictic; f = feminine; irr = irrealis; l.o.c = lack of control; md = middle; np = nominalizing prefix; p = plural; P = preposition; part = participle; pass = passive; perf = perfective; pnt = punctual; po = possessive; pro = pronoun; prog = progressive; qt = quotative; rdp = reduplication; s = singular; stat = stative.

- (e) stubš
man
"he is a] man"
- (f) sbiaw ti ʔuʔw
coyote D go
"the one who goes is Coyote"

(van Eijk & Hess 1986: 324)

In each of the sentences in (4) and (5), a nominal element serves as the sentence predicate, which Kinkade takes as evidence that these nouns are in some sense "verbal": given that there is no way to classify words as either nouns or verbs based on their ability to function as predicates, he goes on to argue, there is no syntactic criterion on which a noun-verb distinction can be made. The absence of syntactic evidence (and it is by no means clear that all syntactic evidence is absent) for the distinction, however, is not evidence for the absence of the distinction itself, and much of the force of Kinkade's argument rests on the tacit equation that he makes between the terms "verb" and "predicate" (an equation made explicitly by van Eijk & Hess 1986), something which is far from clear cross-linguistically. While English and most Indo-European languages restrict the role of predicate to verbs or to non-verbal elements dependent on a copula, the use of nouns and nominals by themselves as sentence predicates is well-attested in a wide variety of languages:

- (6) Tagalog
(a) Mga guro sila
[plural] teacher 3p
"they [are] teachers"

(Schachter 1985: 7)

- Arabic
(b) dool sawwaʔin wiššīn
those drivers bad
"those [are] bad drivers"

(McGuirk 1986: 28)

- Buriat (Mongolian)
(c) baabaj+mni aduušan, ežy+mni xonišonjum
father+1po horse•breeder mother+1po shepherd
"my father [is] a horse-breeder, my mother [is] a shepherd"
(Bertagayev & Tsydendambaev 1962: 55)

- Nanay (Tungusic)
(d) ej naj aloosimdi
this man teacher
"this man [is] a teacher"

(Skorik 1968: 146)

In all of these examples a noun (and to my knowledge no one has proposed that they are anything else) serves as an equative predicate in precisely the same sort of structure as that illustrated in Salish in (4) and (5) above. Thus, while Kinkade is correct in his assertion that nouns are predicative in Salishan, they are predicative in many other languages as well, many of which (e.g. Buriat and Nanay) have complex systems of verbal and nominal inflection which clearly distinguish the two classes (Skorik 1968).

In addition to the ability of nouns to function as predicates, another characteristic of Salish that has been made a great deal of is the relatively free application to both verbs and nouns of a number of morphological and grammatical elements which are highly specific to one or the other of these lexical categories in European languages. One remarkable feature of the verbless sentence in Lushootseed and Bella Coola, for instance, is the way in which what is generally thought of as "verbal" morphology such as agreement features or pronominal clitics appears associated with a non-verbal predicate. This is quite obvious in Bella Coola, where all predicates bear intransitive subject agreement (as in (5)(a)), and also surfaces in some Lushootseed subordinate clauses, which use a series of subject-clitics, as in

- (7) haʔi ti sqədʔuʔ ʔə ti stəftqʔiʔ gʔə+sqədʔuʔ+əs
good D hair P D bafflehead•drake [subjunctive]+hair+3s
"the drake bafflehead's hair is pretty, if it is hair"

(Hess 1993a: 95)

This pattern is unusual, but it is not unique, being attested in divers languages such as Buriat,

- (8) ferme daagša bi+b
farm manager 1s-pro+1s-agr
"the farm-manager [is] me"

(Bertagayev & Tsydendambaev 1962: 58)

and Beja (a Semitic language of Sudan):

- (9) (a) ti+kʔaa+t+oo+`k=t+u
D+sister+f+[genitive]+2s=f+3s
"she [is] your sister"³

(Hudson 1974: 126)

- (b) wí+`aandà gʔa+ee+n+è búun=u
[relativizer]+men drink+[part]+3p+[relativizer] coffee=3s
"what men drink [is] coffee"

(Hudson 1974: 117)

This last example represents a sentence-type—a verbless copular construction with a clausal (in this case, participial) subject—well-attested in Lushootseed and Bella Coola. Compare (9)(b) with:

- (10) Lushootseed
(a) sʔuladxʔ tiʔəʔ s+u+ʔəlad ʔə tiʔil pišpiš
salmon D np+[pnt]+eat P D cat
"what the cat eats [is] a salmon"

(Hess 1993a: 133)

- Bella Coola
(b) ti+sʔaʔt+kʔ ti+nu+yaxʔ+im+kʔ+alu+č ał+tʔw
D+cariboo+[qt] D+[agt]+call•to•do+3s-[pass]+[qt]+[attemptive]+[perf] P+then
"the [one] they tried to call to do it then [was] the cariboo"
(Davis & Saunders 1980: 90, line 33)

³The equals sign is used here to mark the morphological boundaries of the pronominal clitic. Hudson analyzes these clitics as copular verbs, although beyond their use in this type of construction there seems to be nothing inherently verbal about them.

Such sentences are also attested in a wide variety of other languages such as Mongolian (Poppe 1970), Kalmyk, Even, Nanay, Ul'ch, Udeg, Aleut, Nivkh, and Ket (Skorik 1968).

Another morphosyntactic fact that Kinkade (1983) makes use of is the fact that deictics—usually associated with nouns—can be applied to any word in a Salishan sentence, verb or noun:

(11) Lushootseed

- (a) $ti?it$ $sq^w\acute{a}bay?$ ti $?u\acute{c}ala+t+\acute{a}b$ $?a$ $ti?it$ $wiwsu$
 D dog D chase+[caus]+[md] P D children
 "the dog [is what] the children chased"

(Hess 1993a: 128)

Upper Chehalis

- (b) $?it$ $w\acute{a}t+\acute{t}aq+n$ tat $?ac+m\acute{a}lk^w+i$
 D loosen•tie+3p D [stat]+wrap+[intransitive]
 "he unwrapped the package"

(Kinkade 1983: 35)

As can be seen in (11)(a), the Lushootseed deictic elements $ti?it$ "that" and ti "the" may be applied both to words that we would expect on semantic grounds to belong to the class "noun"— $sq^w\acute{a}bay?$ "dog", which constitutes the sentence predicate—and to an expression which seems to be "verbal"— $?u\acute{c}alat\acute{a}b$ $?a$ $ti?it$ $wiwsu$ "chased by the children"; similarly, in (b) the deictics $?it$ "this" and tat "that" are applied to verb phrases, one of which functions as a complement and the other of which functions as a predicate, supporting Kinkade's argument that deictics do not serve, as they do in English, to distinguish the lexical category of their heads. This does not, however, mean that they do not in some sense serve to distinguish syntactic category—that is, that verbs (or, more accurately, verb phrases) that bear deictics are used to fill nominal roles in a sentence and are, in effect, treated *syntactically* as nominals. In Lushootseed and Bella Coola, this hypothesis is supported in part by the pattern of distribution of the deictics themselves, which are almost invariably found associated with sentence-complements, but are found attached to predicates very rarely and only in those cases in which the predicate is open to interpretation as a predicate nominal; if the same pattern holds true in Chehalis, this would point to a gloss of the sentence in (b) along the lines of "the it-is-wrapped [is] the he-unwrapped-it" or, more idiomatically, "the wrapped up one [is] the one he unwrapped".⁴ Thus, while the occurrence of deictic elements with both "verbs" and "nouns" does—like the use of nouns as predicates—argue for the flexibility of lexical categories with respect to the syntactic roles which they may fill in a sentence, it does not in itself necessitate the abolition of these lexical categories altogether.

Another common source of evidence for the unity of verb and noun in Salishan comes from the distribution of a number of "aspectual" affixes which seem to apply to members of both categories whereas—once again on the basis of comparison with more widely known languages—these might be expected to be restricted to verbs. It should be noted, however, that the same type of evidence is pressed into service by van Eijk & Hess (1986) to demonstrate the opposite view, that nouns and verbs can be classified (in Lillooet and Lushootseed) into distinct morphological categories on the basis of their ability to take certain aspectual prefixes. Even Kinkade (1983) concedes that the distribution of such affixes is to a very large degree semantically-driven and so is not a reliable indicator of lexical class, although this position begs the question of the conceptual basis of the lexical categories themselves, something alluded to by van Eijk & Hess with reference to both aspectual prefixes and possessive morphemes. As might be expected, if the category of

⁴Kinkade (1983: 30) himself offers a similar gloss of $?act\acute{a}w\acute{t}$ tit $?acm\acute{a}lk^w$ "the wrapped up one is big".

noun is taken as referring to the semantic class of "person, place, or thing" (van Eijk & Hess 1986: 320), only nouns occur with possessive affixes, whereas verbs that appear in association with these affixes must also bear a prefix, $s-$, most generally classified in Salishan languages as a "nominalizer".⁵ According to van Eijk & Hess, the net effect of this prefix is to "freeze" an action and create a new (nominal) lexical item whose reference is the action or event as a whole, conceived of atemporally (as opposed to being conceived of as a process over time). As will be discussed in the following section, the process of morphological nominalization is used to create both new lexical items (Lushootseed $?at\acute{a}d$ "eat" > $s?at\acute{a}d$ "food"; Bella Coola $q^w\acute{il}ac$ "crush berries" > $sq^w\acute{il}ac$ "wine") and to create more complex nominals to fill certain syntactic roles in a sentence:

(12) Lushootseed

- (a) $ti?it$ $bib\acute{s}\acute{c}\acute{a}b$ $?i$ $ti?it$ $su?suq^w\acute{a}?$ $+s$, $t\acute{a}tyika$, $ti?it$ $\acute{t}u+d+s+hubtu+bicid$
 D mink and D cousin+3po D [irr]+1po+np+tell•story+2s
 "what I will tell you about [is] Little Mink and his younger cousin, Tetyika"
 (Hess 1993a: 175, line 5)

Bella Coola

- (b) $\acute{t}i+s+nap+is$ $ci+xnas+cx$
 D+np+give+3s-3s D+woman+D
 "what he gave the woman"

(Nater 1984: 102)

The fact that such a process exists at all is a good argument for the existence of a distinction between verb and noun, without which the function of the $s-$ prefix would not be at all clear.⁶

The final argument for a noun-verb distinction in Salish, and perhaps the most compelling one from a conceptual or cognitive point of view, is the semantic argument touched on briefly in the preceding paragraph in the context of van Eijk & Hess's (1986) interpretation of the function and distribution of possessives and the nominalizing suffix. In Salish, just as in English, those words that denote people, places, and things in the real world are by and large those that take possessive affixes, most commonly appear with deictic elements, and most commonly (but by no means always or exclusively) serve the syntactic role of complement to a predicate. Words denoting actions or states serve most often as predicate and (generally) do not take a deictic in this role, and they can be combined with affixes expressing certain kinds of aspect semantically related to the notion of process and duration. In Cognitive Grammar, this conceptual distinction between noun and verb is a fundamental one. CG lexical categories are defined in terms of the semantic content or profile of the predication in question, the primary distinction being made between those predications that represent "things"—"a region in some domain of conceptual space" (Langacker 1987: 494) that may refer to an object, person, place, etc.—and those which profile a relation between such things and thus constitute a superordinate category subsuming verbs, adjectives, adverbs, and so on. The fact that, as van Eijk & Hess (1986) point out, the boundaries of the classes identified by syntactic and morphological criteria coincide so closely with these semantic categories argues strongly for such a division: if class membership in either of the two categories were arbitrary, then we would expect far more cross-over than we actually see—yet as things stand, words which are nouns in most of the world's languages tend to fall into one group while those things that are verbs (and adjectives) fall into the other. From a structuralist point of view, it is certainly true that the absence of clear morphological marking of lexical category and

⁵This last appears not to hold for Bella Coola, which has fused the possessive and the intransitive-subject paradigms, although this can be treated as morphological syncretism.

⁶Kinkade (1983) analyzes $s-$ in Upper Chehalis as a marker of "continuative aspect". While there are semantic similarities between this aspectual notion and the notion of a process construed as an abstract entity, the fact that the application of $s-$ in Lushootseed and Bella Coola causes roots to pattern syntactically and morphologically as nouns argues against its interpretation as an aspectual marker.

the flexibility with which Salishan languages use these categories in various syntactic roles means that words and roots in isolation are often ambivalent as to which lexical category they belong to; however, the appropriate category for a given word becomes readily apparent when the admittedly sparse structural evidence is combined with semantic criteria, allowing us to make the familiar and (probably) universal category distinction between verb and noun.

2 Morphological Nominalizations

As noted above, one reason to suppose that a real distinction between the lexical categories of noun and verb exists in Bella Coola and Lushootseed is the existence in these languages of distinctive, morphologically-marked processes for the derivation of syntactically nominal elements from verbs. Langacker (1991) identifies three classes of nominalization, each of which is distinguished from the other according to the organizational level of the clause at which the nominalization process occurs. The first class, which will be referred to here as “lexical nominalization”, involves only the verb stem, forming a lexical noun from a lexical verb (for example, the derivation of *explosion* from *explode*) and the nominalized word is considered, like any other noun, as a generic type rather than a specific instance of the entity represented by the predication. The second class, “factive nominalization”, involves the nominalization of a verb (*sans* tense and modality) and its objects and attributes—excluding the subject—and as such represents not a type of event but an ungrounded instance (that is, a particular event or type of event which has not been located in “conceptual space” by the speaker with respect to time, modality, and clausal profile); in English these are represented by the present participial or gerund phrase and in Russian by the *prichastie* (commonly translated as “participles”): for this reason factive nominalizations will be referred to here as participles. This category is far more frequently and obviously attested in Lushootseed than in Bella Coola. The final class of nominalization creates a nominal element from an entire clause and constitutes a fully grounded instance referring to one specific event (or set of events) that has been fully located for the listener in conceptual space; this type of “sentential nominalization” is apparently absent from Lushootseed, but in Bella Coola it is a common method of forming subordinate clauses.

2.1 Lexical Nominalization

In both Bella Coola and Lushootseed, all morphological nominalizations, including lexical nominalizations, are realized by means of nominalizing prefixes, the more common and less-restricted in usage being *s-*. Consider these examples of words formed with the *s-* prefix:

- (13) Lushootseed

(a) s+ʔəłəd
np+eat

“food”

(b) s+ʔilib
np+sing

“song”

(c) s+ʔuladxʷ
np+(to) fish

“salmon”
- (Hess 1993a: 202)

(Hess 1993a: 254)

(Hess 1993a: 204)

- Bella Coola

(d) s+qʷilac+l
np+crush•berries+[perf]

“juice, wine”
- (e) s+lxʷta
np+spit

“spittle”
- (f) s+aʕa
np+build•canoe

“canoe”

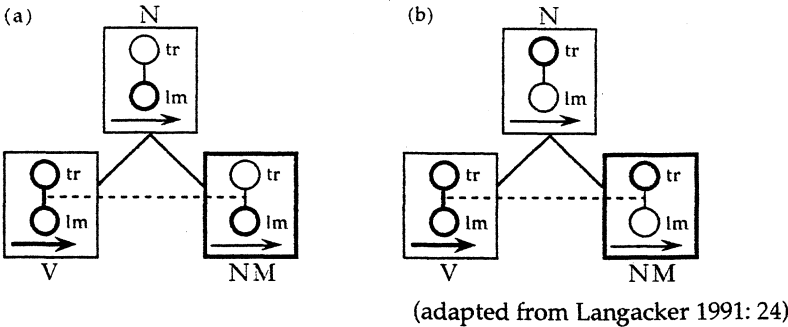
(Nater 1984: 101)

(Nater 1984: 101)

(Nater 1984: 101)

In each of these examples, a noun is derived from a verb representing a type, rather than an instance, of an event (*i.e.* “eating” in general as opposed to a specific instance of “eating”) and thus derives a new lexical item (“food”, not “what was eaten”). According to Langacker (1991), the English counterparts to the kind of nominalizations in (13) are derived through a process he calls “alternate profiling” whose compositional properties are shown in (14), illustrating the distinction between the two English nominalizing suffixes. In both cases illustrated, the verb (V) and nominalizing morpheme (NM) combine to form a noun (N). The profile of the verb stem is a process over time (the arrow) relating two participants, the trajector (tr) and the landmark (lm); correspondence between the process represented by V and that represented in NM is shown by the dotted line, and that the profile of the composite structure (N) is the profile of NM is shown by the heavy box around it. In (a) the nominalizing morpheme profiles the landmark of the process (*i.e.* the nominalization represents the object, as in “interviewee”) and in (b) the morpheme profiles the trajector (the subject, as in “interviewer”), with the result that the composite structures are nouns.

(14) English nominalizing morphemes



In Bella Coola and Lushootseed, on the other hand, there is only one nominalizing morpheme used in ordinary lexical nominalizations, meaning that the profile of a lexical nominalization is going to depend on the combinatorial properties of the stem to which it is attached. This is most easily expressed in terms of the valency of the stem involved. Valency is the number of arguments (actants) for which a verb subcategorizes; in Bella Coola and Lushootseed, a verb with a valency of two (that is, which subcategorizes for two actants) may be either transitive—having a subject (trajector) and a direct object (landmark)—or intransitive, having a subject and an oblique object (which is unprofiled and, therefore, not a landmark), as in Lushootseed,

- (15) (a) ʔu+ʔutəd tsi ɕaɕas ʔə ti bəsqʷ
[pnt]+eat D child P D crab
“the girl ate crab”

(Hess 1993a: 38)

- (b) s+ʔutəd
np+eat
“food”

(Hess 1993a: 202)

In (a) the object eaten—that is, the food—is realized as an oblique rather than a direct actant, requiring use of the preposition ʔə; in (b) it is the oblique actant that is profiled by the nominalization. Such actants are referred to as “peripheral” actants.⁷ The same syntactic pattern holds for the stems in (13), all of which may form the predicates of sentences with a subject (the agent) and an oblique object which becomes the profile of the *s*-nominal. Note that in many cases the object has been semantically incorporated into the meaning of the stem; thus, ʔaʔa “build a canoe” in Bella Coola includes the notion of what is built (which would be the direct object in English), as does the corresponding terms in Lushootseed, *payəq*. This is not unusual in either language, although it is interesting that such implicit objects may be realized overtly in a sentence, in which case they appear as oblique (peripheral) actants, as in

- (16) (a) ʔaʔa+yuks+aw x+a+s+aʔ+aw+c
build•canoe+[plural]+3p P+D+np+build•canoe+3p+D
“they were building their own canoes”

(Davis & Saunders 1980: 183, line 91)

- (b) læcu+payeq ʔə tiʔit sdiʔ+dəxʷit
[prog]+carve•canoe P D [rdp]+hunting•canoe
“[he] was carving out a hunting canoe”

(Hess 1993a: 177, line 34)

Instruments (realized in clauses as peripheral actants using the preposition *x-*) of some divalent stems in Bella Coola are also profiled by the *s*-nominalizer, as in

- (17) (a) s+qɪkʷ “tools”
np+fix [sth]
(b) s+lq “mind, brains”
np+think [of sth]

(Nater 1984: 102)

For most transitive verbs in Bella Coola, however, the same pattern as intransitive divalent verbs is found, with the non-subject argument surfacing as the profile of the nominal, as in

- (18) (a) s+knix “food”
np+eat
(b) s+kič “laundry”
np+wash

(Nater 1984: 102)

Because transitive verbs in Lushootseed are derived from intransitive radical stems (see 3.1), divalent transitives in this language do not seem to undergo lexical nominalization, a “patient-profiling” nominal such as those illustrated in (13) being derivable from the radical itself. Nominalizations of trivalent verbs in both Bella Coola and Lushootseed, like the instrument-centred and divalent intransitive forms, profile the peripheral actant of the clause.

With the exception of Bella Coola transitive stems (which are in themselves somewhat exceptional—see Section 3.2), then, we seem to have a pattern whereby the profile of a lexical nominalization corresponds to a peripheral actant of a the stem which has been nominalized. There are, of course, exceptions to this generalization, some real and others only apparent. Consider, for example, the data in (19):

- (19) Lushootseed
(a) s+qaxʷ “ice”
np+frozen

(Hess 1993a: 243)

- (b) s+tax+il “night”
np+dark+[trm]⁸

(Hess 1993a: 234)

- (c) s+əliʔ “soul”
np+alive

(Hess 1993a: 224)

- Bella Coola
(d) s+ps “north-east blizzard”
np+hiss

(Nater 1984: 101)

- (e) s+xum+aqʷs “tears”
np+stream+eye

(Nater 1984: 101)

- (f) s+ʔusqa+lič “smallpox”
np+come•out+skin

(Nater 1984: 101)

Stems such as *qaxʷ* “frozen”, *əliʔ* “alive” (Lushootseed), and *ps* “hiss(ing)” (Bella Coola) are monovalent (they are, in fact, not strictly speaking verbs, but radicals—see 3.1 below) and when nominalized by the *s*-prefix profile the only figure in their profile, their trajector or that thing which possesses the property that they delineate. Other monovalent expressions which are more clearly verbal are derived stems such as *taxil* “grow dark” (Lushootseed) and *ʔusqa+lič* “come out of skin” and these, too, profile their only argument when they are nominalized. Note, however, that in all of these cases the trajectors of the radicals—that is, “that which freezes”, “that which grows dark”, “that which comes out of the skin”—is not a definite agent or entity; in clauses, subjects of this type are often realized by null or expletive arguments in a wide variety of languages and in Cognitive Grammar this type of subject is often treated as an abstract setting in which the event occurs (Langacker 1991). Because of the abstract nature of the trajector of these types of expression, words such as *taxil* might easily lend themselves to an interpretation as “a

⁷The term “peripheral” is borrowed from Davis & Saunders (1984), although the distinction there is semantic rather than syntactic.

⁸[trm] = “transmutative”, a morphological category having the meaning “to begin to be” (Mel'čuk 1994).

darkening" or even "when it grow dark"; this type of shifting of a profile from one of the participants to the event or relation as whole is amply illustrated for nominalized clauses and will be discussed further below. For now it is enough to note that the abstract nature of the trajector of the words in (19) may well lead to their interpretation as nominalized event-types as opposed to event-participants.

In addition, Nater (1984) gives a number of nouns derived via *s*-nominalizations from words such as *ck* "heavy" (> *sck* "weight") which correspond to English adjectives; note that in such examples, the profile of the nominalization is the state described by the relational predication—that is, the nominal profiles the predication's referential landmark. Once again, because these "adjectival" radicals serve more to describe states than events *per se*,⁹ their trajectors are difficult to construe outside of a specified instance or context. An English adjective like "big" can be applied to anything and does little to aid us in defining its trajector or imagining the type of event in which that trajector might have taken part; on the other hand, a more "verbal" radical such as the Lushootseed *ilib* "sing" or Bella Coola *ʔaʔa* "build a canoe" tells us quite a bit about the potential event participants and so its nominal interpretation is easily shifted to one of these.

In view of all of the possible construals of *s*-nominalizations, it might seem initially that there is not one but several related meanings for this prefix. In CG, however, this does not require us to treat the *s*-prefix as a different morpheme in every case—instead, we can treat the various profiles of lexical nominalizations as the products of various "subschemas" of a more abstract nominalizer whose meaning includes the creation of a "thing" from a relational predication, but does not specify what aspect of the relation becomes the nominal profile. As will be shown below, *s*- is also used for other types of nominalizations which involve more than a mere shift in profile, and so the question of how best to represent the *s*- morpheme will be postponed until after the discussion of these categories. For the moment it is enough to note that alternate profiling is but one of the functions of the nominalizing prefix. Which of the subschematic meanings of the *s*-prefix a listener will select in interpreting a lexical nominalization depends on the stem involved; aside from monovalent (radical) stems and Bella Coola transitive radicals, *s*-nominalizations profile a verb's peripheral actant. This association between the peripherality and the *s*-morpheme (noted for Bella Coola in Davis & Saunders 1984) is an important one in both languages, and figures prominently in a great many areas of their syntax.

2.2 Factive Nominalization

The second class of nominalization, factive nominalization, is virtually absent from Bella Coola, whereas in Lushootseed it is one of the most distinctive features of the grammar. In CG, a factive nominalization is considered to have all the attributes of a clause except subject, tense, and modality, while at the same time sharing many of the syntactic and morphological properties of a noun, including the realization of a possessor, which represents the clausal subject. Such nominalizations are commonly referred to in Indo-European languages as "participles", a term that I will extend here to cover the analogous structures in Lushootseed.¹⁰

Consider the following "non-finite clauses":

⁹Although in CG states are treated as subtypes of events in which there is no change in the trajector-landmark relation over time.

¹⁰Note that in English grammar, a distinction is traditionally made between participles and gerunds, the former filling an attributive role in a sentence and the latter acting as a nominal. Aside from the facts of their distribution, however, the two categories seem to be identical and most likely reflect two uses of the same type of lexical item. In Russian, the term "participle" is used to refer to the attributive use of this class of nominalization, coinciding with the English usage, whereas in some discussions of Altaic languages such as Turkish (e.g. Comrie 1981) "participle" is used for both substantive and attributive roles; the term "gerund" is more often used in Altaic (Comrie 1981; Poppe 1970), Spanish (Solé & Solé 1977), and in traditional Russian grammars (e.g. Pulikina 1982) to refer to what are more accurately described as "verbal adverbs": for this reason I have chosen the term "participle" rather than "gerund".

- (20) *ṣʷul pʰaʔaʔ tiʔəʔ d+s+ʔabyid*
only worthless D 1po+np+give
"what I give [to him] is only junk"
(lit. "my given [to him] [is] only worthless")

(Hess 1993a: 185, line 14)

In (17) the grammatical subject of the clause, the giver, is represented by the first-person pronoun *d*- from the possessive paradigm, whereas in the next example,

- (21) *ʔuʂudxʷ tiʔit s+əs+qʷuʔ ʔə tiʔit ʔiʂəd+s ʔal tiʔəʔ hikʷ ʕʰaʔ*
see D np+[stat]+gather P D relatives+3po P D big stone
"[he] saw the gathering of his relatives by the big stone"

(Hess 1993a: 185, line 3)

the subject of the participial clause *səsqʷuʔ* "gathering" is an overt third-person NP, *tiʔit ʔiʂəds* "his relatives", and is realized as a possessor, being marked by the preposition *ʔə*. (Compare this to the corresponding finite clause *ʔəsqʷuʔ tiʔit ʔiʂəds* "his relatives are gathered". The participle here is also marked for verbal aspect (*ʔəs*- "[stative]"). The next sentence,

- (22) *ṣʷul pʰaʔaʔ tiʔit s+ʔabyid+s tiʔit ʕʰaʔ*
only worthless D np+give+3po D stone
"what he gives to Stone is only junk"

(Hess 1993a: 187, line 33)

shows an example of a participle, *sʔayid* "giving", with a third-person subject (represented by *-s*, the third-person possessive affix) and an overt object, *tiʔəʔ ʕʰaʔ* "Stone" (an anthropomorphized boulder who is given worthless gifts by Coyote). On the other hand, (23)

- (23) *juʔil+əxʷ ʔə tiʔəʔ tu+s+ʔələd ʔə tsi sʰalqəb ʔə tiʔəʔ qa wiʷsu*
enjoy+now P D [irr]+np+eat P Df monster P D many children
"[he] enjoyed [the thought of] the monstress's eating the many children"

(Hess 1976: 657)

contains a participle, *sʔələd* "eating", with both an overt object—*tiʔəʔ qa wiʷsu* "these many children"—in an oblique relation to its predicate, and an overt subject—*tsi sʰalqəb* "the monstress"—also marked by *ʔə*, in this case a mark of the possessive. Note that the participle in (23) carries general aspectual marking,¹¹ as does the example in (24):

- (24) *hay lax+du+b+əxʷ ʔə tiʔit ʕʰxʕʰ*
then remember+[l.o.c.]+[md]+now P D fish-hawk
tiʔit tu+s+cut+t+əb+s ʔə tiʔit sʕətxʷəd
D [past]+np+speaking+[caus]+[md]+3po P D bear
"then fish hawk remembers what bear said to him"

(lit. "then his was-spoken-by-bear is remembered by fish hawk")

(Hess 1993a: 194, line 46)

Here *tuscuttab* "[past]+being spoken" has been passivized by the affixal combination *-t+əb*, deriving the grammatical subject of the participle (marked by the third-person possessive suffix) from the object of the verb *cut* "speak to".

¹¹In Lushootseed there are two classes of affixes that express aspect or aspect-like concepts. The first only appears on radicals or words derived from radicals; the second, that of the past *tu*- in (24) and the irrealis *tu*- (23), may be applied to both radicals and nouns.

The term “participle” is not one that is commonly used in the Salishan literature; however, the non-finite clauses in (20) – (24) bear close comparison with participial clauses in Altaic and Indo-European languages as enumerated in Comrie (1981) and Comrie & Thompson (1985). One particularly salient feature is the requirement that the grammatical subject be realized in the role of possessor. The same occurs in English sentences such as

- (25) (a) I gave Mary a ball.
(b) my giving Mary a ball

English participles depart from the Lushootseed pattern in that they are able to take non-possessive subjects, which are (more or less) synonymous with possessive subjects, e.g. “John/John’s giving Mary the ball”. Interestingly, Comrie (1981) reports the same pattern in Tatar, as in

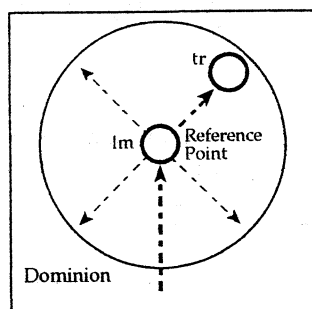
- (26) (a) min kür+gän+ne bel+de
1s+[accusative] see+[past part]+[accusative] know+[past]
“he found out that I had seen”
(lit. “he knew me seeing”)

(b) min+em kür+gän+em+ne bel+de
1s+[genitive] see+[past part]+1po+[accusative] know+[past]
“he found out that I had seen”
(lit. “he knew my seeing”)

(Comrie 1981: 82)

Here the subject of a “verbal noun” is expressed as a possessor in the genitive case or as an actant in the accusative. As suggested by Taylor (1994) for deverbal nouns in English, the use of the geni-

- (27) Possessive relation in CG



(adapted from Langacker 1991: 171)

tive/possessive to realize the subject in factive nominalizations can be linked to Langacker’s (1991) “reference-point” analysis of the possessive construction. Under this analysis, the possessive can be analyzed as a relational predication which serves to profile its landmark (the possessor) as a point of reference which can be used to locate the trajector (the possessed) in conceptual space and identified it as the particular instance or instances of the entity to which the speaker is referring. This is illustrated in (27). The landmark here serves as a reference point for the location of the trajector within the landmark’s “dominion”; the dominion of an entity is defined as the set of objects which it can be used to locate, either in a spatial sense or in the abstract sense in which the reference point serves an indexical or deictic function.

According to Taylor (1994), the possessor of a deverbal noun is identified with the subject or object of the verb from which it is derived because it can be used to identify the particular instance of the entity designated by the possessed element; thus, “Harry” in “Harry’s love” is used to single out a particular instance of “love” for the hearer’s attention—that instance of “love” of which Harry is the protagonist. Whether or not the possessor refers to the subject or the object of the clause depends on the utility of the respective arguments for correctly identifying the entity being singled out by the speaker: while some deverbals (like “love”) select inevitably for subjects and others select for the object (“fright”), many deverbals seem to allow for either interpretation, depending on the argument’s “topicality” and the “informativity” (the precision with which it allows the hearer to pinpoint a specific instance of a possessed). The details of Taylor’s argument are not directly relevant to the issue of factive nominalizations, in which the possessor always refers to the clausal subject, but these two criteria do seem to offer an explanation of why it is that possessor-subjects are selected for by participles—which retain more of their clausal properties than other deverbals (cf. Grimshaw’s 1991 notion of “argument structure”). In clausal constructions, subjects are known to be highly topical cross-linguistically (Keenan 1976; Givón 1979) and, in the case of Lushootseed and Bella Coola, subjects almost invariably correspond to discourse topics. Because of this topicality, subjects often serve the function of anchoring new information in discourse (see also Langacker (1991), where “topic” is defined in precisely these terms) and, thus, they serve as the reference-point against which new information can be located in the discourse space. Objects are not available for this function, as they are included within the scope of the factive nominalization (and so can not be used as a reference point for their own location).

Another feature of clauses that participles retain is marking for voice and aspect. English uses combinations of auxiliary verbs to do this, though it is nowhere as expressive as Lushootseed in this respect. A better Indo-European parallel is found in Russian *prichastie*:

- (28) (a) present active imperfective
mužčina, priglašajuschij druga na obed
man invite friend to lunch
“the man inviting a friend to lunch”

(b) present passive imperfective
mužčina, priglašаемyj drugom na obed
man invite friend to lunch
“the man being invited by a friend to lunch”

(c) past active imperfective
mužčina, priglašavschyi druga na obed
man invite friend to lunch
“the man who was inviting a friend to lunch”

(d) past passive imperfective
kniga, chitannaja mal’čikom
book read boy
“the book which was being read by the boy”

(e) past active perfective
mužčina, prigasivšii druga na obed
man invite friend to lunch
“the man who has invited a friend to lunch”

- (f) past passive perfective
 mužčina, priglašjonnyj drugom na obed
 man invite friend to lunch
 "the man who had been invited by a friend to lunch"

Russian participles can (and, in the past passive perfective, frequently do) serve as nominals and resemble to factive nominalizations in terms of semantic and syntactic structure; most often, however, they are used attributively and bear the morphological agreement features of adjectives, which serve to mark the participle's role as modifier of the noun corresponding to its grammatical subject. Lushootseed participles are also used attributively, as are nouns, as in

- (29) (a) tiʔəʔ hikʷ ʔalʔal
 D big house
 "this big house"

(Hess 1993a: 117)

- (b) tiʔəʔ kiyuuqʷs stətudəq
 D seagull slave
 "these seagull-slaves"

(Hess 1993a: 117)

- (c) tiʔəʔ tu+s+əs+čəbaʔ+s kʷagʷičəd
 D [past]+np+[stat]+backpack+3po elk
 "this elk he'd been backpacking"

(Hess 1993a: 142)

In sentences like (c), Lushootseed participles take on the function of the English relative clause; this is highly reminiscent of the situation in many Altaic languages, as in Uzbek

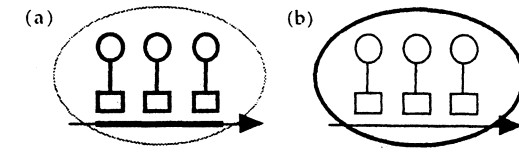
- (30) men+in yoz+gan xat+im
 I+[genitive write+[past part] letter+1s
 "the letter that I wrote"
 (lit. "my having-written letter")

(Comrie 1981: 82)

In Uzbek, as in related languages such as Mongolian, the participle is considered by grammarians to be a noun (Comrie 1981; Poppe 1970); in Lushootseed, the distributional properties of participles and their appearance in association with the possessive affixes (taken by van Eijk & Hess 1986 as a definitive marker of nouns) also argue strongly for their nominal status.

If Lushootseed participles are accepted as nominals, the question of how to describe the nominalization process arises; clearly, alternative profiling, as illustrated in (14) for English *-ee/-er*, is inadequate, as the factive nominalization does not simply profile a participant in a type of event (or relation), but rather profiles either a specific event as a whole (as in (21)) or a participant in an instance of that event type (as in (22)). In other words, whereas a lexical nominalization like *sʔələd* "food" designates any object of any instance of the eating process, a factive nominalization such as that in (22)—*sʔabyids tiʔit čʔaʔ* "what he gave to Stone"—designates a particular object of a particular (grounded) instance of giving—not a gift in general but a particular gift given on a particular, fully identified occasion. This is reminiscent of what Langacker (1991) terms the "conceptual reification" of a processual relation, represented in (31). The first part of the diagram shows the semantic pole of a verb, which is represented as a relation between the trajector (the circle) and its landmark (the rectangle) over time (the arrow); a verb is considered to be a sequen-

(31) Conceptual reification of a verb

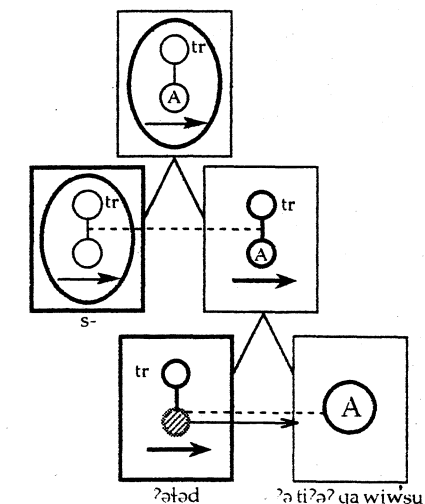


(Langacker 1991: 24)

tial progression of component states—here represented by a sequence of three trajector-landmark pairs—which profiles a given segment of time over which the relation holds (shown by the thickened line overlying the arrow). These component states form an abstract region in conceptual space which is only latent in the verb (represented in (a) by a lightened ellipse), but which may be profiled as in the factive nominalization in (b), where the profile is no longer a relational entity scanned sequentially over time (*i.e.* a verb) but a region containing a series of entities corresponding to the component states of a process—that is, a noun.

In those cases where a participle represents an event as a whole, such as *tusʔələd ʔə tsi sʔəlqəb ʔə tiʔəʔ qa wiʔsu* "the monstress' (future) eating the many children" from (23), the nominalization process can be represented as the compositional schema in (32). Here at the initial level the verb stem *ʔələd* "eat"—represented schematically by a single component state—is combined with its oblique object *tiʔəʔ qa wiʔsu* "the many children" (abbreviated by "A"); the cross-hatched elaboration-site (e-site) is an (unprofiled) actant in the process, as indicated by the arrow (marking elaboration) and the dashed line (marking correspondence between the two entities). At the next level of composition, the nominalizing morpheme—once again, *s-* just as it is in lexical nominalizations—is added, shifting the profile of the composite structure from the processual relation ("eating the children") to a region of conceptual space which refers to an instance of "eating the children". The final stage in the composition of the nominalization (not shown) would be the elaboration of the trajector (tr), which is accomplished by the addition of the possessor, *ʔə tsi sʔəlqəb* "of the monstress", thereby creating a fully grounded instance of the eating (*i.e.* express-

(32) Factive nominalization of *tusʔələd ʔə tsi sʔəlqəb ʔə tiʔəʔ qa wiʔsu*



ing a unique real-time instance of the process—an actual event located in conceptual space by the possessive morpheme, rather than a schematic conceptualization of an event-type).

It should be noted that the net effects of the *s*-morpheme here and in the English nominalizations represented in (14) are somewhat different, as an additional subschema of the *s*-morpheme has been selected, one which carries out the conceptual reification illustrated in (31). This subschema seems to apply in those cases where all of the event-participants have been specified. In cases such as (22), where all of the actants of the verb are not specified, the profile of the participle corresponds to an unrealized participant: just as the subject is not an eligible target for profiling by the participle, neither is the direct object. Even when the direct object is not expressed, as in *dsʔabyid* “my given [to Stone]” (“what I gave to Stone”) from (20), the object’s identity is unambiguous in discourse and would be represented in the syntactic structure by a zero pronoun. This is seen in cases where neither subject nor direct object are overt and the realization of a peripheral actant shifts the meaning of the nominal to the event itself, as in

- (33) *juʔil+əxʷ ʔə tiʔəʔ s+ʔabyid ʔə ti sbiaw*
 enjoy+now P D np+give P D Coyote
 “[he/she] enjoyed the giving of Coyote [to him/her]”
 (Hess, personal communication)

Here the prepositional phrase *ʔə ti sbiaw* serves the role of peripheral actant (the gift) and the participle represents the event as a whole, indicating the presence of all of its actants. This requirement that the profile of the nominalization correspond to a peripheral actant seems to stem from the nature of a factive nominalization, which is a nominalization whose scope includes the object of a verb; in Lushootseed, however, it seems that the profile of a stem includes only the subject and the object (the direct actants) of a verb and peripheral actants must be expressed overtly as a PP. In the absence of this PP, the identity of a peripheral actant is not included in the scope of the nominalization and thus becomes an eligible candidate for profiling by the participle itself.

2.3 Sentential Nominalization

In sentential nominalizations, the nominalizing morpheme is applied to a fully grounded instance of a relational process—that is, to a tensed verb (in languages that have tense) and its direct actant(s). In English and related languages, sentential “nominals” are not realized morphologically, but are created through the use of complementizers (“[That he walks in his sleep] drives her crazy”; “I see [that you have found your own way home]”), which allow a finite clause to serve a nominal (actantial) role in a sentence. In Bella Coola, however, clauses that serves as actants must be nominalized using the *s*-prefix, as in

- (34) (a) *pwi ti+s+puʔaylayx+aw*
 halibut D+np+(to)fish+[l.o.c.]+3p
 “what they caught [is] a halibut”¹²
 (Nater 1984: 102)
- (b) *wic ʔac wa+s+ʔaʔps+tu+m qʷaʔxʷ*
 [idn] this D+np+eat+[caus]+3s-[pass] raven
 “what Raven was fed [was] this”¹³
 (Nater 1984: 102)

¹²The verb here *puʔaylayx* “to fish” is intransitive, being closer to “to fish (for)”, although it implies that the fishing was successful.

¹³The copular “identifier” is discussed in Nater (1984). The causative form of *ʔaʔps* “eat”, which means “to feed”, takes as its subject the one who feeds and as its object the one who is fed, the food being peripheral in the clause.

- (c) *ʔaʔnap+is+kʷ+c ta+qiiqtii+tʃ wa+s+kʷacta+tu+m*
 know+3s-3s+[qt]+[perf] D+baby+D D+np+name+[caus]+3s-[pass]
x+ti+man+ti
 P+D+father+1p-po
 “the baby knew what he had been named by our father”
 (Davis & Saunders 1980: 108, line 121)

Here, the nominalized sentence functions as an actant of the predicate—the subject of a verbless sentence in (a) and (b) and as an object of a verb in (c)—and, like lexical nouns in analogous sentences, they are marked with deictic elements. In these sentences the profile of the sentential nominalization corresponds to a peripheral actant of the nominalized verb (e.g. the oblique object of *puʔ* “to fish” in (34)(a)). Sentential nominalizations also serve as circumstantial clauses:

- (35) (a) *kamalexʷs s+ka+lip+c*
 next•year np+[irr]+turn+[refl]+1s
 “it [is] next year [when] I will come back”
 (Nater 1984: 103)
- (b) *ʔiliwa+s sʔmt+s*
 quick+3s np+get•up+3s
 “he [was] quick [as] he got up”
 (Nater 1984: 104)
- (c) *ʔaws+ulmx+c s+ʔaʔwlaa+ti+c*
 damp+ground+now np+rain+[past]+D
 “the ground is damp, it having rained”
 (Nater 1984: 105)

In (35) the profile of the nominalization corresponds to an event as a whole (or, in (b), to the temporal extension of the event) and acts as an adverbial modifier. Like adverbs and other sentence particles, such nominalizations are not usually marked with deictics. Sentential nominalizations also serve as sentential complements, as in

- (36) (a) *ʔanayk+c s+ka+ʔap+c*
 want+1s np+[irr]+go+1s
 “I want to go”
 (Nater 1984: 104)
- (b) *ʔaʔnap+it s+ʔinus ti+ka+ʔap*
 know+3s-3p np+2s D+[irr]+go
 “they know that it is you who will go”
 (lit. “they know that the going one is you”)
 (Nater 1984: 103)

Finally, sentential nominalizations, like Lushootseed participles, serve in roles corresponding to English oblique-centred relative clauses:

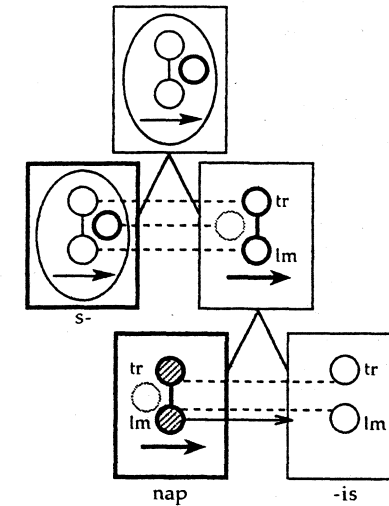
- (37) *ti+qʷlsx+tx ti+s+nap+is ti+ʔmsta+tx ti+staltmx+tx*
 D+rope+D D+np+give+3s-3s D+person+D D+chief+D
 “the rope that the person presents the chief with”
 (Davis & Saunders 1984: 218)

This sentence shows a sentential nominalization in a modifying relationship to a noun, the deictics on the relative clause being a result of a morphological process of deictic spreading.¹⁴

Unlike Lushootseed participles, however, sentential nominalizations in Bella Coola are not obviously nominals except in those cases like (34) where they function as actants of a predicate by profiling event-participants and, possibly, (36) and (37), where their syntactic roles are at least ones that are commonly filled by a noun. Indeed, as Kroeber (1991) points out, in Bella Coola “the term ‘nominalized’ loses much of its meaning, since ‘nominalized’ clauses in fact display no distinctively nominal properties: one might almost as well simply label *s-* a subordinative prefix ...” (p. 59). Nevertheless, it is striking (as Kroeber himself goes on to point out) that it is the same morpheme (*s-*) which is used in lexical nominalization, in oblique-centred relative clauses, and in those cases where a sentence is required to fill a syntactic role usually filled by a noun or a lexical word; cross-linguistically, *s-* serves a nominalizing function in all Salishan languages and, as we have seen, in Lushootseed it is used to form participles. Thus, it is well worth asking whether we can attribute a single semantic representation to this morpheme that will allow a unified treatment of all the phenomena that have traditionally been lumped together under the heading of “nominalization”.

According to Langacker (1991) the underlying distinction between factive and sentential nominalization lies at the compositional level at which the reifying process illustrated in (31) takes place; whether the resulting nominalization is factive or sentential depends entirely on the degree to which the relational entities appearing in the profiled region of conceptual space have been elaborated—that is, whether the target of nominalization consists of a non-finite verb and its objects, or a fully grounded instance of a verb and all of its actants. Applying this to the Bella Coola data, this means that instead of adding the nominalizing morpheme, as in Lushootseed participles, to the verb at the compositional level following the addition of the objects and preceding the addition of the subject, Bella Coola sentential nominalizations add the nominalizer at the next level up from the subject, as in the composition of *snapis* “that he presented him (with)” from (37), shown in (38). In this diagram, the elaboration of both the landmark and trajector are carried out at the same level of composition by a single morpheme *-is* representing both the third-person transitive subject and the third-person transitive object of the verb. Because *nap* “give” is trivalent, its representation includes one unprofiled, peripheral actant (dotted circle). As Bella Coola verbs are not marked for tense, it is presumably the complete elaboration of the verb’s actants (and particularly the elaboration of the subject, which serves as a reference point for the event in discourse) that results in the grounding of an instance of a relational process. The application of the *s-* morpheme at the next level of composition thus results in a sentential nominalization. The fact that the realization of both subject and object is accomplished with a single portmanteau morpheme may allow us to explain the divergence of Bella Coola from Lushootseed (and other Salish languages): the fusion of historically separate subject and object markers makes it impossible to carry out factive nominalizations in this language because both subject and object are necessarily elaborated at the same level of composition in transitive verbs. In the

(38) Composition of *snapis*



case of intransitive verbs, the convergence of intransitive subject and possessive morphemes removes any morphological distinction between intransitive participles and intransitive sentential nominalizations, effectively eliminating participles as a distinctive class in Bella Coola.

Note, however, that the particular subschema of the nominalizing *s-* in (38) differs from that presented in the composition of the Lushootseed participle in (32). In the Lushootseed example the nominalizer shifts the profile of the nominalization to the event as a whole (all of the actants of the verb having been specified). In the Bella Coola sentential nominalization (as in the Lushootseed participle in (20)), the profile of the nominal is a peripheral actant of the verb and so the subschema of *s-* that applies is one that shifts the profile of the clause from the trajector-landmark relation to the formerly unprofiled actant (as shown by the heavy circle in the topmost level of (38)). The reified process forms the context in which the profiled actant (in (20) and (38), the gift) is identified (the nominalization representing an instance—a specific gift exchanged in a specific context by specific people—rather than a type). This subschema, then, is crucially different from that seen in (32), in that it is applied in any case where a clause with an *unspecified* peripheral actant undergoes nominalization. In a pattern reminiscent of that observed above for lexical nominalizations, this subschema encompasses the third actant of trivalent verbs, the second actant of divalent intransitive verbs, and the instrument of many verbs representing actions that are felt to have inherent instruments.

So far we have two subschemas of the *s-* nominalizer, one which profiles a peripheral actant and one which profiles an event. Returning for a moment to our examples in (34) – (37), we can see that the first of the two applies to the examples of sentential nominalizations used as actants (34) and as modifiers of a noun (37), while the second case seems to cover the sentential complements (36). The circumstantial uses of the *s-* clause, however, are a little more interesting. Consider the examples from (35) as well as the following:

- (39) (a) ?ustx^u+aw ?ula+sui+aw s+ki+s ti+snx+layx
go•in+3p P+house+3po np+set+3s D+sun+D
“they go into their houses when the sun sets”

¹⁴ As in Lushootseed, Bella Coola can use simple nouns as modifiers in the same manner as the sentential nominalization in (34) is used:

- (i) (a) kx+ic ti+staltmx ti+?imlk+tx
see+3s-1s D+chief D+man+D
“I see the man [who is] chief”
(b) *kx+ic ti+?imlk ti+staltmx+tx
see+3s-1s D+chief D+man+D

(Davis & Saunders 1978: 41)

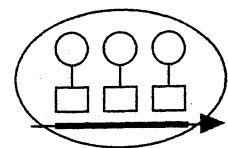
Note that, unlike other types of modifiers (which may either precede or follow their head), simple nominal modifier constructions are obligatorily head-final, almost certainly as a means of disambiguation. Davis & Saunders (1978) offer this as a further diagnostic of a noun-verb distinction in the language.

- (b) ʔasʔutqnak+s ʔut ti+qla+ʔayx wa+s+ʔasquptnak+a+k"
 take•pail+3s P D+water+D D+np+sound•drum+3p+[qt]
 "she took her pail to the water while the drums were sounding"
- (c) ʔip+aak+ʔ+ic ta+s+ʔilus+ʔ+cs
 grab+hand+[perf]+3s-1s D+np+pass+[perf]+1s-3s
 "I grabbed his hand as he went past me"

(Nater 1984: 102 – 104)

In each of these three examples, the nominalized clause represents a fully elaborated event with all of its actants and so we would expect the profile of the nominalization to be that of an event as a whole. In these sentences, however, the relationship of the nominalized clause to the matrix clause seems to be that of an adverbial expression—that is, an expression of temporal extension—indicating that, in fact, what is profiled by the *s*-nominalization here is the time over which the event in the embedded clause took place. This profiled slice of time, then, is combined with the matrix clause, whose temporal extension it serves to define. The profile of such a nominalization, then, would be that represented in (40). In this particular subschema of the *s*-prefix, the pro-

(40) Profiling of adverbial clause



file of the morpheme is the time over which the event takes place. Langacker (1991) offers a similar analysis of English expressions such as

(41) Working in the garden, I saw her go by.

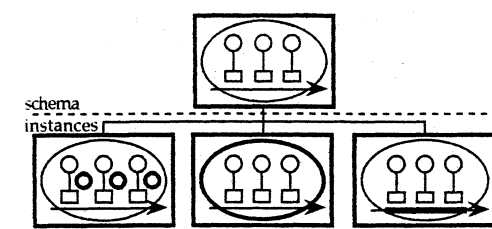
Here the participial phrase—morphologically identical to a factive nominalization—serves to identify the time at which "I saw her go by" by identifying this time as being the same as (or some part of) the time during which "I" was "working in the garden". The major difference between the English pattern of participial adverb and the Bella Coola adverbial *s*-clause is that English (and many other Indo-European languages) seems to require that the trajector of the subordinate clause be coreferential with the trajector of the main clause, whereas Bella Coola has no such restriction.

What is particularly interesting about Langacker's analysis is that he ties the idea of "subordination" of clauses to the type of shift in profile that we have seen effected by the Bella Coola *s*-prefix. According to Langacker, subordination of one clause to another means that, in effect, the profile of the subordinate clause is subsumed in some way by that of the matrix clause. The profile of the English sentence in (41), for example, is that of the event of seeing, the act of working having been reduced to additional information about the event in the matrix clause. Clearly, the *s*-prefix in Bella Coola and Lushootseed has precisely this function as well: by nominalizing clauses and thereby transforming events into abstract nouns that can serve as actants or modifiers, *s*- in effect subordinates the profile of the nominalized events to that of the matrix clause. Thus, Kroeber's observation cited earlier that Bella Coola *s*- often functions like a subordinator can not only be extended to cover all cases of sentential nominalization in Bella Coola, but can be applied to Lushootseed as well, since—according to our analysis here—nominalization

of a clause is, in fact, subordination.¹⁵ Of course, whether all cases of subordination in Bella Coola are nominalizations is another matter. It is certainly not out of line to suppose that adverbial and other types of adjuncts to a matrix clause might indeed be nominals—nouns can play this role in many languages (e.g. English "he knocked three times on the door") and many Bella Coola adverbs are derived from lexical nouns. Similarly, *s*-clauses that function as adverbials in one sentence may surface in a more noun-like role in another. On the other hand, semantically it is not clear that the subschema in (40), which profiles a temporal extension, does indeed meet the criteria for noun-hood, although it certainly could be argued that *wasʔasquptnakak* "while the drums were sounding" constitutes a reification of a time in the same way that a word like "day" (the time over which the sun passes from horizon to horizon) does. In any case, it is also unclear to what extent this is a meaningful question—for the purposes of our discussion, it is enough to note that the creation of adverbial clauses is another function of the nominalizing prefix.

Thus, it does seem—in spite of their sometimes limited nominal characteristics—that Bella Coola sentential nominalizations can be derived with the same morpheme as Lushootseed factive nominalizations, and that this morpheme is also used in lexical nominalizations. In total there appear to be three major subschemas of the meaning of this prefix, one (applied to verbs and clauses) which profiles a peripheral participant in an event, a second (applicable to radicals and fully-elaborated clauses) which merely reifies an event or relation, and a third (in Bella Coola) which profiles the temporal extension of an event, thereby creating an adverbial.¹⁶ The schematic meaning of the *s*-prefix—that is, what all of these meanings have in common—is the conceptual reification of an event to create a semantic "thing" which can then be manipulated by the syntax as a noun. This is represented in (42). The schematic relations between the various meaning of the *s*-prefix allow us to posit a range of meanings for nominalizations realized by the same morpheme. Selection of the appropriate subschema can be accounted for by the degree to which the nominalized event has been elaborated and (in the case of the third subschema in Bella Coola) by syntactic environment. Whether or not the nominalization refers to a type, an instance, or to a grounded instance of a "thing" or event depends entirely on the scope of the

(42) Schema for the *s*-nominalizing prefix



¹⁵Interestingly, this subordinating function extends itself to verbless sentences as well. Because verbless sentences with third-person pronominal subjects are, in effect, one-word sentences consisting of a noun plus (optionally) agreement features, this may create the rather bizarre situation where the nominalizing prefix is (apparently) applied to a noun, as in

- (i) paa+ic x+a+s+John
 name+3s-1s P+D+np+John
 "I will name him John"
 (lit. "I will name him the one who is John")

(Nater 1984: 101)

This approach to non-verbal elements bearing the nominalizing prefix offers a syntactic explanation of the observation made in Davis & Saunders (1984a) that the *s*-prefix is used to express "peripheral" information about an event: by subordinating the profile of clause to which it is applied to that of the matrix clause, the nominalizing morpheme is, in effect, marking peripherality.

¹⁶This is excluding the more "exceptional" cases of trajector-oriented nominalizations of radicals, the patient-oriented nominalizations of Bella Coola transitive stems discussed above, and a type of Lushootseed purpose clause not dealt with in this paper.

nominalization (that is, the compositional level at which it is applied). The nominalization is lexical and refers to a type if it includes no participants, otherwise it must be interpreted as a factive (Lushootseed) or sentential (Bella Coola) nominalization.

As a final note, this last distinction drawn here between type and instance nominalization parallels closely that drawn by Grimshaw (1991) between the nominalization of words that have "event-structure" (and hence represent an actual event and must include actors, realized as arguments) and the nominalization of words which do not (and which therefore represent a type of event involving no specific actors). For instance, the deverbal nouns in (43)

- (43) (a) The frequent expression of one's feelings is desirable.
 (b) The constant assignment of unsolvable problems ...
 (c) The instructor's examination of the papers ...

(Grimshaw 1991: 50 – 51)

have both event structure and argument structure (and, hence, obligatorily take *of*-phrase "objects"), whereas the same nouns in (44) do not.

- (44) (a) The expression is desirable.
 (b) The assignment is to be avoided.
 (c) The examination took a long time.

(Grimshaw 1991: 50 – 51)

Grimshaw (1991: 49ff) argues that because the nominalizations in (43) have event structure, they must also have argument structure, a conclusion that is compatible with the data here, although from the point of view of a conceptually-based approach to grammatical processes, it seems more plausible to reduce this structural claim to a semantic one and posit that only those nominalizations that represent an event may take the argument structure of the verb they are derived from.

3 Relational Predications: Verbs and Adjectives

As noted above, Cognitive Grammar makes a fundamental distinction between predications that designate an object or entity (nouns) and relational predications, which profile a relationship or interconnection between entities (Langacker 1987). Within the class of relational predicates, we can distinguish between temporal (verbs) and atemporal relations (adjectives).¹⁷ In Lushootseed and Bella Coola, these two classes are intimately related, although in slightly different ways. In Lushootseed all relational predicates appear to be, in their basic form, atemporal (that is, what in English would be adjectival) and require the addition of suffixes—many of which increase the valency of the stem—in order to take on a truly verbal, temporal meaning; in Bella Coola, on the other hand, there is an underlying distinction between those relational predications that are inherently transitive temporal relations and those that form a class of intransitive atemporal radicals corresponding to the same class in Lushootseed.

3.1 Lushootseed

Hess (1993b) defines the most basic descriptive unit of the Lushootseed verb to be the radical stem—that is, the stem with no accompanying affixes. Hess also notes that when these stems

¹⁷Adverbs and adpositions are also characterized as types of atemporal relations; Langacker (1987: 243), however, does not recognize these as fundamentally distinct within the category of atemporal relations. Instead, they are to be considered as language-specific grammatical classes which are more readily distinguishable on the basis of their syntactics than on their semantics alone. Adverbs and prepositions in Bella Coola and Lushootseed resemble their English counterparts and so will not be dealt with in any detail here.

occur as sentence predicates, they typically express states (and are often accompanied by the stative prefix *as-*) or correspond to verbs of experience. With only a handful of exceptions, the profile of radical stems never includes more than a single participant which corresponds to the patient, theme, or goal of the corresponding transitive verb. Consider:

- (45) (a) ʔu+pus čəd
 [pnt]+be•hit•by•flying•object 1s
 "I [am/was] struck (by a flying object)"
 (b) ʔu+pusu+d čəd^{18}
 [pnt]+be•hit•by•flying•object+[caus] 1s
 "I pelted [him/her]"
 (c) ʔu+čax^w čəd
 [pnt]+be•struck 1s
 "I [was] struck"
 (d) $\text{ʔu+čax}^w\text{a+d}$ čəd
 [pnt]+be•struck+[caus] 1s
 "I struck [him/her]"

(Hess & Hilbert 1976: II, 136)

Verbal radicals are not the only candidates for the addition of verbalizing suffixes: words corresponding to English adjectives often serve as the roots of verbs, as in

- (46) (a) hik^w stubs
 big man
 "big man"
 (b) $\text{ʔu+hig}^w\text{+il+əx}^w$ $\text{tiʔit} \text{ ʃəč+s}$
 [pnt]+big+[trm]+now D mind+3po
 "his courage grew"

(Hess 1976: 191)

These stems appear in copular sentences identical to sentences with verbal predicates.

- (47) (a) tu+hik^w čəd stubs $\text{tu+lu}^w\text{+il+əd}$
 [irr]+big 1s man [irr]+old+[trm]+1s
 "I'm going to be a big man when I grow up"

(Hess 1976: 191)

- (b) (hə)laʔb čəd ʔu+čəi
 really 1s [pnt]+shocked
 "I [was] really shocked"

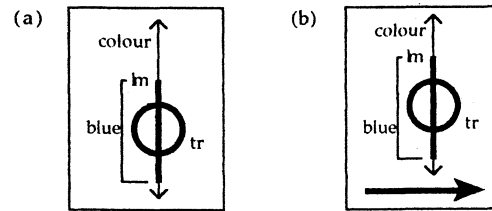
- (c) ʔu+čəi+əd čəd
 [pnt]+shocked 1s
 "I surprised him"

(Hess 1976: 96)

¹⁸The stem-final /u/ in ʔupusud —like many stem-final vowels—is part of the root, but is deleted word-finally and before many suffixes.

intransitive verbs and adjectives: therefore, to the extent that it is a meaningful question, the present analysis will assume that the radical is indeed an atemporal—hence, basically adjectival—relation standing in a copular relationship with its subject, a stand by no means at odds with the Lushootseed (and general Salishan) propensity for forming sentences with non-verbal predicates.

(50) Atemporal and temporal relations in Cognitive Grammar



3.2 Bella Coola

Although the term “radical” has not been previously applied in the literature on Bella Coola, this language, like Lushootseed, builds up words of a variety of lexical classes from unaffixed stems; as in the discussion above, the term radical will be used for those bare roots which represent relational predications. Nater (1984) divides radicals in Bella Coola initially into transitive and intransitive classes (the latter of which he extends to include nouns). Transitive radicals are similar to transitive verbs in Indo-European languages and seem to contain some notion of both temporal and transitive interaction between subject and object. Intransitive and transitive radicals are not morphologically distinguishable in uninflected form; transitives are identified by their ability to appear with affixes from the transitive pronominal paradigm:

- (51) (a) $k'x+is$ $ti+?imlk+tx$ $ci+xnas+cx$
 see+3s-3s D+man+D D+woman+D
 “the man sees the woman”
- (b) $sp'+tis$ $ti+?isimmki+tx$ $wa+wac'+uk+sc$
 hit+3p-3s D+boy+D D+dog+[plural]+D
 “the boy is hitting the dogs”

(Davis & Saunders 1978: 38)

Intransitive radicals, on the other hand, are somewhat more remarkable from a cross-linguistic perspective and seem to correspond to radicals in Lushootseed, subsuming both adjectives and intransitive verbs. As in Lushootseed, Bella Coola radicals take verb-forming affixes:

- (52) (a) $caq'+\emptyset$
 straight+3s
 “it [is] straight”
- (b) $?al+caq'+\emptyset$
 [resultative]+straight+3s
 “it has been straightened”
- (c) $caq'+tu+c$
 straight+[caus]+3s-1s
 “I straighten it”

Conversely, radical verbal stems can serve attributive roles in a sentence, as in

- (48) $ti?a?$ $ha?l$ $?u+k'wik'wəl$ $q'u?$
 D good [pnt]+trickle water
 “this nice trickling water”

(Hess 1993a: 117)

These facts suggest that at the level of the radical there is no clear distinction between verb and adjective, the only potential exceptions to this generalization being a few inherently transitive stems and a handful of adjectives like $lu\lambda$ “old” and $ha?l$ “good” which do not appear with the stative aspectual prefix (Hess, personal communication).

This potential conflation of the categories of verb and adjective fits well into a proposal made by Givón (1979) that the lexical class “adjective” does not represent a universal category, but rather a language-specific portion of the continuum of time-stability. This continuum runs from the active pole, depicting rapid change of state (verbs) through temporary states (verbs/adjectives) to permanent-inherent properties (adjectives/nouns) and objects and other things that do not change their identity over time or change it slowly (nouns). Givón notes that where languages vary is as to how the middle portion of the continuum is lexicalized. In some languages temporary states are typically realized as verbs (Krio, Topotha) while in others they are most often adjectives (English); other languages differ as to whether permanent-inherent states are usually adjectives (English, Bantu) or nouns (Walbiri). In Lushootseed, rather than the temporary states becoming verbs, we have the verbs forming a morphologically uniform class with both the temporary and inherent-permanent adjectives. Interestingly, those radical stems that seem the best candidates for forming a distinctive class of adjective in Lushootseed—those that do not take the stative prefix—are those that lie at the high end of the permanent-inherent end of the spectrum and some of these (such as $lu\lambda$ “old”) are used regularly as nouns.

As noted above, in Cognitive Grammar both verbs and adjectives are seen as relational predications, the distinction being between those whose profile includes the concept of change or duration over time (verbs) and those which profile an atemporal relation (adjectives). Returning to Givón’s continuum, we can see that languages differ as to whether words which designate temporary states are treated as are construed to be temporal (verbal) or atemporal relations (adjectival). In languages that express tense in their verbal morphology, the distinction between temporal and atemporal relations is often made in the syntax by the appearance of a copula in predicate-adjective constructions. Compare, for example, the two Russian sentences in:

- (49) (a) More bylo sinee.
 sea was blue
 “the sea was blue”
- (b) Vo rži sine+l+i vasil’ki.
 in rye blue+[past]+[plural] cornflowers
 “in the rye, the cornflowers were blue”

In sentence (a) the adjective *siniy* “blue” is construed as an atemporal relation, illustrated in (50)(a). Here *siniy* is seen as designating a region (lm) on the colour scale which corresponds to the speaker’s conception of blue; however, being atemporal, it requires the addition of the copular form *bylo* in order to express the notion of tense; in contrast, the verb *sinet’* “be blue” profiles the same relation but includes the notion of duration and hence can be inflected for tense, as in (49)(b). Its CG representation is given in (50)(b). In Lushootseed, however, tense is not marked in this way and there is no copula, leaving us no effective way in which to distinguish between

- (d) caq^w+ayx+ø
straight+[l.o.c.]+3s
"it has accidentally been straightened"
- (e) caq^w+aynix+ic
straight+[l.o.c.]+3s-1s
"I accidentally straightened it"

(Saunders & Davis 1993: 273)

According to Nater (1984), the morphosyntactic properties of those radicals that correspond to English intransitive verbs and those that correspond to English adjectives are identical; as illustrated in (53) below, intransitive stems may be used both attributively and predicatively.

- (53) (a) ta+ya ta+?imilk+l̥x
D+good D+man+D
"that good man"

(Nater 1984: 47)

- (b) ya+ø ti+?ilk+tx ti+s+ks+tu+s ti+q^wx^wmtimut
good+3s D+man+D D+np+fix+[caus]+3s-3s D+car
"the man is good at fixing cars"

(Davis & Saunder 1984: 222)

- (c) k̥x+ic ti+λap ti+λmsta+tx
see+3s-1s D+go D+person+D
"I see the person who is going"

- (d) λap+aw wa+λmsta+c
go+3p D+person+D
"the people are going"

(Davis & Saunders 1978: 38 – 40)

In the first of each pair of sentences in (53), an intransitive stem is used attributively (as an adjective) and in the second the same word is used as a sentence predicate. Note that neither the radical *ya*, corresponding to the English adjective "good" in (a), nor the radical *λap* "go" in (c) can take intransitive pronominal endings (Nater 1984), nor does *λap* require the addition of the *s*-prefix (or any other morpheme) to indicate its status as a modifier (cf. English "the *go/going person"). A transitive stem in a similar position, on the other hand, requires the expression of a second actant and thus takes the form of a relative clause (which bears pronominal affixation). Once again, as in Lushootseed, the absence of a copular verb and inflection for tense in Bella Coola leaves us with no effective means of differentiating between radicals representing temporal (verbal) and atemporal (adjectival) relations, and these will be treated here as in Lushootseed—as members of a single, conflated category of atemporal predications representing a portion of Givón's continuum of time-stability.

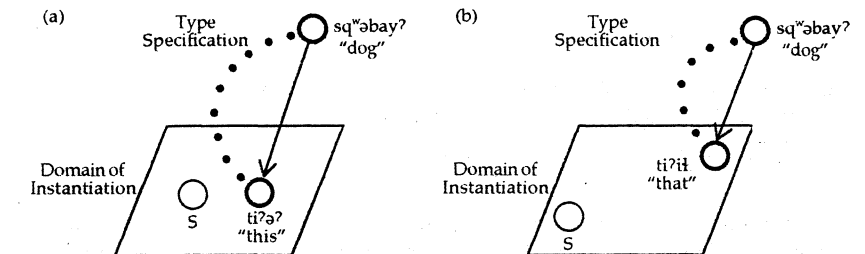
4 Deixis

The final category to be considered here is the category of deictic, cross-linguistically a subcategory of the larger class of determiner. In conceptual terms, a deictic is an element which serves a pointing function by identifying or grounding an object or thing with respect to the speaker and the speech act. A great deal of controversy surrounds the status of determiners in terms of their

lexical and syntactic properties and this issue has sparked debate among linguists from a wide variety of theoretical persuasions. The key issue in this debate is the nature of the relationship between noun and determiner. The traditional analysis (Chomsky 1965; van Langendonck 1994) holds that in a noun – determiner string, it is the noun that is the head; recently, however, that view has been challenged, and a number of researchers (Abney 1987; Hudson 1990) have proposed the opposite structure, with the determiner as the head—an analysis that has found much favour among Salishanists (e.g. Jelinek & Demers 1994; Davis & Matthewson 1995).

One of the principle arguments for the treatment of determiners as syntactic heads is the fact that determiners in many languages have pronominal properties (R. Hudson, personal communication), and it is certainly true that deictics in both Bella Coola and Lushootseed seem not only to have their ordinary function of grounding "things", but also can be used pronominally to stand in for a clausal figure. This is most explicit in sentences where the subject is a deictic element alone. Consider the diagram in (54), which represents the two Lushootseed sentences *sq^wəbay? ti[?]ə?* "this [is] a dog" and *sq^wəbay? ti[?]i?* "that [is] a dog". What the diagram here shows is the equation (dotted curve) of an abstract or generic type—"dog", representing the class of all dogs—to a particular instance of that type which is located in the domain of instantiation by its correspondence (arrow) to a pronominal deictic. Roughly, the "domain of instantiation" can be

(54) Predication of types



understood as the mental map of items whose location is known to the speaker and which can be identified with "things" that are known, can be seen, or are presupposed to exist.¹⁹ The difference between (a) and (b) resides in the relative spatial locations of the type's instantiation (the dog in question) vis-à-vis the speaker (S): use of the deictic to point to a particular dog ties the reference of the type to a specific instantiation by equating it with one at a designated location, distinguishing it from others of its class.

The pronominal function of deictics is also apparent in sentences built on more complex relational predications. Consider an expression based on a Lushootseed radical such as

- (55) ti[?]ə? luλ^w
D old
"this old fellow"

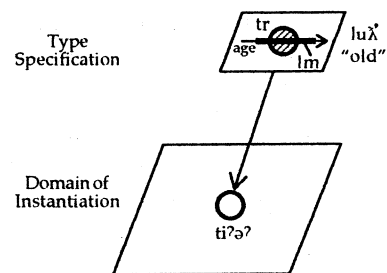
(Bates et al. 1994: 139)

In such expressions the relational predication *luλ^w* "old" serves to locate its trajector relative to a scale of age (cf. the predication "blue" illustrated in (50)(a)); in English, the trajector of such a predication is generally elaborated by a noun, either a referential noun (as in "the old man") or

¹⁹The term "location" in a discussion of deixis can have a variety of (language-specific) meanings (Anderson & Keenan 1985) ranging over locations in physical, conceptual, and even discourse space (e.g. "latter" vs. "former").

some sort of syntactic dummy inserted to meet the constraints of the grammar ("the old one"). In Lushootseed, however, the possibility exists to elaborate the predication with a deictic element which, as a pronominal, can act simultaneously as the trajector and as a grounding element for the predication, in effect serving to locate a particular instantiation of the relation in question ("oldness") by locating an entity with that property in conceptual space for the listener. This is illustrated in (56), which shows the correspondence (arrow) between a particular entity in the domain of instantiation (whose location/identity is known the speaker and hearer) and a figure or e-site (hatched circle) in a relational predication which serves to define its type specifications.

(56) Instantiation of type defined by an atemporal relation



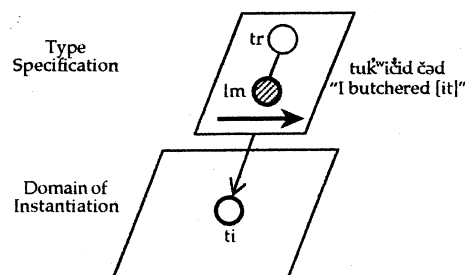
A similar analysis holds for deictics which head a non-nominalized clause, as in the Lushootseed

- (57) (a) ?u+ləkʷ+əd čəʔ ti tu+kʷiči+d čəd
[pnt]+eat+[caus] 1p D [past]+butcher+[caus] 1s
"we ate [what] I butchered"

(Hess 1993a: 140)

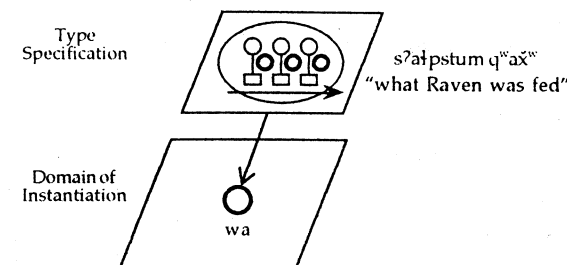
Here we have a clause—a relational predication—one of whose actants is elaborated by a deictic acting both pronominally and as a grounding element, as shown in (58). Because the trajector of the clause is overtly realized, the cross-hatched elaboration site for the deictic is interpreted as being the clausal landmark, making the expression as a whole an instantiation of that participant (the object of the clause). The deictic thus elaborates a clausal figure in the same way that a pronoun might, while at the same time grounding the type ("something such that I butchered it") in the domain of instantiation.

(58) Instantiation of a type defined by a temporal relation



The case of deictics associated with morphological nominalizations is a bit different. Consider (59), representing the Bella Coola construction *wa+sʔaɪpstum qʷaɣʷ* "what Raven was fed" (given in (34) above). Unlike (58), the type specification in (59) is not a relational predication but is

(59) Instantiation of morphological nominalizations



instead a noun whose profile is defined by the combination of the embedded clause with the nominalizing prefix. The deictic here functions in precisely the same manner that a deictic associated with an ordinary noun would, grounding a type—defined by its participation in an event—by locating it in the domain of instantiation. Given the deictic's pronominal character, however, the correspondence between type and instance in (59) becomes precisely that which we find in ordinary noun-modifier relations, where the head noun serves as an instantiation of a type defined by its modifier. Such modifiers in Bella Coola and Lushootseed can be relational predications ((56) or (58)), nouns ((29)(b)), or finite clauses, as in this Lushootseed relative construction,

- (60) (a) ?u+šudxʷ čəʔ ti čačas ?u+təs+əd ti?it stubš
[pnt]+see 1p D boy [pnt]+hit+[caus] D man
"we saw the boy [that] hit the man"

(Hess & Hilbert 1976: II, 125)

which seems to admit of the same representation as the DP in (58)—with *ti čačas* "the boy" grounding the predication "[s.o.] hit the man" by elaborating its subject, just as the deictic *ti* elaborates the object of "I butchered [sth]". There is, of course, a semantic difference between a DP and a noun-modifier construction: the DP grounds its dependent in the domain of instantiation. However, this is a result of the semantic content of the deictic itself, rather than of the relation that holds between type and instance.

The close resemblance of the semantic structure of the DPs illustrated in (56), (58), and (59) to ordinary noun-modifier relations offers an interesting explanation of an observation made by Kinkade (1983). Lawrence Nicodemus, a native speaker of Coeur D'Alene with some linguistic training, regularly glosses DPs as RCs, as in

- (61) xes+itčə? xʷe čə?
good+flesh D deer
"they are good to eat those which are deer"

(Nicodemus 1975, cited in Kinkade 1983: 34)

Under the pronominal analysis of determiners, an even more literal gloss might be "the ones who are deer [are] good meat", the determiner *xʷe* serving as the head of a relative clause formed from the sentence "they are deer". Although it is difficult to know how seriously to take such considerations, Kinkade's interpretation of Nicodemus (that all overt NP complements—which are obligatorily headed by determiners—are full clauses) has had a certain intuitive appeal among some Salishanists and has come to play a crucial role in some of the more recent theoretical work on these languages (e.g. Jelinek & Demers 1994). While it may be going too far to claim identity of DP and relative clause, the fact remains that there is a high degree of structural, and hence (one would expect) semantic, convergence between the two.

Comparison of the predication of types in (54) with the structures illustrated in (56), (58), and (59) reveals some further parallels. The first thing to note is that, by dint of its grounding function, the deictic in all four cases stands in the same type-instance relation to some element. In terms of the semantics of this relationship, these structures carry the same propositional meaning: in each case the deictic is identified as a member of a certain class of things. This fact might lead us to expect a similar convergence in syntactic structure, which is certainly the case in (56), (58), and (59), each of which appears syntactically as a DP, a structure in which the deictic is considered to be the syntactic head. In the case of the verbless sentence, however, we have the inverse of this pattern, with the type acting as the predicate (head) of the sentence and the instantiating deictic serving as its dependent. The key to understanding this difference lies in understanding the thematic structure of the verbless sentence. The communicative goal of the predication of a type is to provide new (rhematic) information about a topic—that is, about some entity (the deictic's antecedent) which has already been instantiated in conceptual or discourse space: thus, the rhematic nature of the type specification requires that it be realized as the sentence predicate. The DP examples, on the other hand, can not stand on their own as fully elaborated clauses and so have no thematic structure (or, whatever thematic structure they have is subordinated to that of the larger clause in which they appear), resulting in the inverse configuration, where the deictic stands as the syntactic head.

5 Summary

The net result of the analysis presented in the preceding sections is an essentially two-way division of the major lexical categories of Bella Coola and Lushootseed, classifying them initially as predications profiling either entities (nouns and nominals) or relations between entities (verbs and adjectives). In the case of Bella Coola, relational predications can be further subdivided into temporal (transitive) and atemporal (intransitive) categories; in Lushootseed, the relational predications expressed by radicals are all atemporal and require the use of suffixation for the expression of unambiguously temporal relations, verbs being built up via various layers of affixation. In neither language does the lexical class of adjective form a distinctive morphosyntactic category. It should be noted that the lexical classes proposed here are considerably different from other proposals that have been made for Salishan languages, which often make the initial division between predicates and non-predicates and then fail to differentiate any further "underlying" distinction (beyond valency) within the predicate category. Such analyses, however, run into a number of problems, including those outlined in van Eijk & Hess (1986) and in the discussion above. Even had they succeeded, however, they would remain inherently unsatisfying from the point of view of conceptual frameworks such as Cognitive Grammar, which seek to base the morphosyntactic properties of language on underlying semantic and conceptual content. Because of the pervasive ambivalence of Salishan roots with respect to their class membership, the construction of a straightforward syntax on purely structural grounds becomes a daunting task and often leads to analyses that paint these languages as much more exotic and mysterious than they really are. Alternatively, allowing ourselves to make reference to the conceptual content of roots in order to identify their lexical category, as we have done here, both makes the task of describing the syntactic behaviour of these roots and their derivatives much simpler, and permits an analysis that brings Bella Coola and Lushootseed more in line with patterns observed by other researchers across the broad spectrum of human languages. At the same time, a conceptual approach to the category of deictic offers an explanation of some of the more remarkable features peculiar to Salishan languages, many of whose unique features stem from the strongly pronominal nature of their deictic elements and the ways in which these are used to simultaneously to ground and to represent event-participants—and, once again, these unique features turn out to be a matter of language-specific approaches to universal conceptual and cognitive problems.

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