Patterns of nominalization in Bella Coola and Lushootseed

In the Salishan languages Lushootseed and Bella Coola, nominalization of verbs and even entire clauses is realized through the use of nominalizing prefixes, the most important of which is *s*-(Nater 1984; Hess 1993). Although some properties of *s*-nominals in these languages differ, the schematic meaning of the morpheme is the same, both languages making use of a single proto-type and one or two subschematic meanings. The cross-linguistic differences are largely the result of whether the prefix is applied to bare verbs, verbs plus objects, or verb, subject, and object. The combination of these two factors--one conceptual or semantic (choice of schema) and the other compositional or syntactic (type or scope of nominalization)--leads to a unified analysis of the meaning and behaviour of *s*-nominals in the two languages.

1) Types of Nominalization

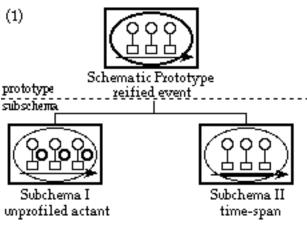
In Cognitive Grammar (Langacker 1987, 1991), three types of nominalization are proposed:

- <u>Action Nominalization</u>: nominalizes a verb with no accompanying arguments (actants), creating a new lexical item which designates a generic type of action or event.
- <u>Factive Nominalization</u>: nominalizes a verb along with all of its actants except the subject; these are also called "participles" or "gerunds". This creates an instance of an event not uniquely identified or "located in conceptual space".
- <u>Sentential Nominalization</u>: nominalizes a verb along with all of its actants including the subject. This creates an instance of an event distinguished from all others located for the listener in conceptual space.

Between Bella Coola and Lushootseed, all three are realized morphologically using the *s*-prefix.

2) Schemas of the *s*-prefix

Independently of the compositional level at which the *s*-prefix is applied, it can be taken to have three distinct-but-related meanings, as shown in (1) (prototype drawn from Langacker 1991: 24)



Prototypically, *s*- is a nominalizer which serves to reify an event, thereby

- suspending sequential scanning
- delimiting a region of conceptual space
- construing a process atemporally as an object or thing (*cf.* van Eijk & Hess 1986)

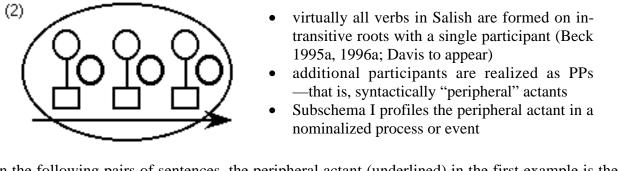
Subschema are context-dependent meanings:

- the first defines a participant in an event
- the second profiles the time over which events occur, creating a temporal adverb

The combination of these three meanings of the *s*-prefix with the three types of nominalization predicted by Cognitive Grammar (and observed in the data) gives us a full account of the variety of s-nominalizations found in Bella Coola and Lushootseed.

3) Compositional pattern I: Lexical nominalization

The uses of the s-prefix are least well-defined at this level and, as is typical of word-level processes in general, their meanings are often highly grammaticalized. Productive application of the morpheme, however, generally makes use of Subschema I, shown in (2):

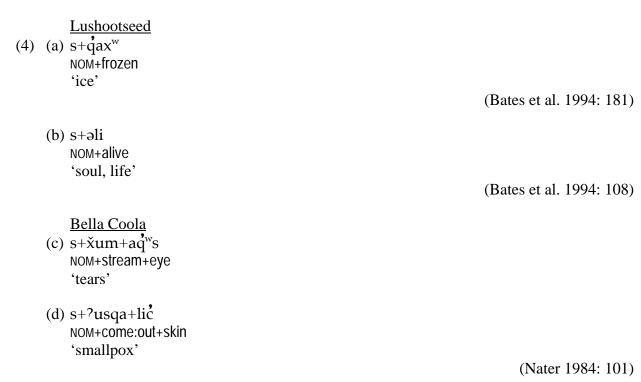


In the following pairs of sentences, the peripheral actant (underlined) in the first example is the trajector of the lexical nominalization in the second:

Lushootseed (3) (a) $^{2}u+^{2}a^{2}ad$ tsi čačas ?ə ti bəsq^w youngster PR D PNT+eat Df crab 'the girl ate crab' (Hess 1993: 39) (b) s+?abdNOM+eat 'food' (Hess 1993: 202) Bella Coola (c) ?ala+yuks+aw $x+a+s+a\lambda+aw+c$ canoe:making+plural+3PL PR+D+NOM+canoe:making+3PL+D 'they were building their own canoes' (Davis & Saunders 1980: 183, line 91) (d) $s+a\lambda a$ NOM+canoe:making 'canoe' (Nater 1984: 101)

The single actant of $2\partial I \partial d$ 'eat, dine, feed on' in (a) is the eater and the single actant of $2\partial I \partial d$ 'canoe-build' in (c) is the canoe-builder actants not profiled by the root (the eaten in (a) and the canoe in (b)) are "peripheral" and must be realized as PPs when Subschema I is applied, the peripheral actant becomes the referent of the nominal

In more lexicalized items, lexical *s*-nominals may profile their trajector—or, more precisely, a specific trajector which represents an instance of the process designated by the root:



In Bella Coola, *s*-nominalizations of adjective-like words tend to profile their relational land mark, as in ck^w 'heavy', sck^w 'weight' (*cf.* Lushootseed $\frac{1}{ax}$ 'dark, darkness, night' where the bare radical serves as the nominal form via association with a deictic—*ti* $\frac{1}{ax}$ 'night'). The situation in Bella Coola is further complicated by the existence of some inherently transitive roots which, when nominalized, profile either an instrument or a direct object:

(5) (a) $s+\dot{q}k^{w}$ NOM+fix [sth] 'tools' (b) $s+l\dot{q}$ NOM+think [of sth] 'mind, brains'

- (c) s+ulix+c NOM+choose+food 'provisions'
- (d) s+kić NOM+wash 'laundry'

(Nater 1984: 102)

In the case of instrument-profiling ((5a) and (b)), this is clearly another application of Subschema I (the instrument being peripheral and realized as a PP); (5c) and (d), on the other hand, profile an actant (direct object) which is included in the verbal profile, and thus represent an exceptional use of the *s*-prefix, peculiar to Bella Coola with its "un-Salishan" transitive roots.

4) Compositional pattern II: Participial nominalizations

The second compositional pattern, found in Lushootseed but not Bella Coola, consists of nomi nalizing a (non-finite) verb and all of its objects, creating an ungrounded instance of an event; cross-linguistically, these nominalizations are often called "gerunds" or "participles":

(6)	(a)	Russianmužčina,priglaša+em+yjmaninvite:IMPF+PT:PRS:PASS+MASC:SG:NOM'the man being invited by a friend to lunch'	drug+om friend+INST	na to	obed lunch							
	(b)	Buriat Badmin duu duula+x+ie šagna+ba+d Badmin song sing+PRT+ACC hear+PST+3SG 'he heard Badmin singing'	(Bertaga	ev &	Cydendambaev 1962)							
	(c)	<u>Chukchi</u> enagtat+kə+ɛ?+a qaa+k ?aacək chase+not+PRT+INST reindeer+LC youth 'he youth who did not chase the reindeer'										
	(d)	Tatar min+em kür+gän+em+ne bel+de l+GEN see+PRT+my+ACC know+PST 'he found out that I had seen'			(Comrie 1981)							
The structures bear in (6) close comparison to <i>s</i> -nominalizations in Lushootseed:												
Lushootseed (7) (a) x̃ ^w ul paλaλ ti?ə? <u>d+s+?abyid</u> only worthless D 1PO+NOM+give 'what I give [to him] is only junk' (lit. 'my given [to him] [is] only worthless') (Hess 1993: 185, line 14)												
	(b)	,	čňa? stone		ess 1993: 187, line 32)							

In the examples in (6), the subject of the participle is realized in various ways; in the Lushootseed examples in (7), the subject is realized as a possessor (underlined), as it is in English and

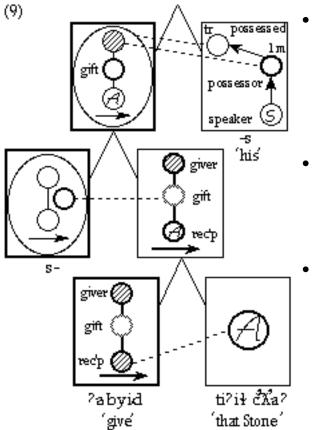
(8) (a) men+ing yoz+gan xat+im 1SG+GEN write+PST:PRT letter+1SG 'the letter that I wrote'

(Comrie 1981)

Inuit (b) inuk nanu+up takuj+a+a man bear+PO see+NOM+3PO 'the man [is the] seen by the bear'

(Hofman 1978)

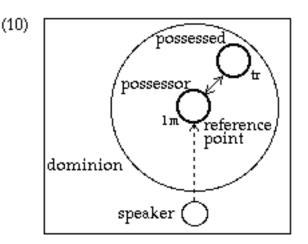
Participial nominalization is carried out by applying the *s*-prefix to the verb at the "second-level" of composition—that between the elaboration of subject and object, as shown here in the composition of *s*?*abyids ti*?*ił* $\delta \lambda a$? 'his given to Stone' from (7) above.



- first level of composition elaborates the direct object, $ti^2it c^3a^2$ 'that Stone'
 - recipients are the direct objects of acts of giving in Salish
 - gifts are unprofiled participants (*i.e.* peripheral actants)
- second level nominalizes the expression
 - here, Subschema I is applied
 - *s*-shifts the profile to a peripheral actant (the gift) in a reified event
- third level adds the subject-possessor
 - landmark of the possessive (possessor or deictic index) corresponds to the final unelaborated participant (the giver or subject of the corresponding finite clause)
 - the trajector of the possessive is the event itself, the expression thus locating the event relative to the possessor/subject

The use of possessors to realize subjects—that is, identify specific events by acting as referencepoints in narrative—bears a strong resemblance to the use of possessors as a means of identifying specific instances of objects (Langacker 1991) wherein the possessor is treated as a reference-point for singling out a particular possessed entity acting as an index or deictic used to select one specific referent among several of the same type

- possessed is identified by its (usually unique) association with the possessor
- possessor of a participially-nominalized event is uniquely related to that event by dint of being its trajector
- thus, like nouns, nominalized events are located in discourse space by their subjects/ possessors (*cf.* Taylor 1994)



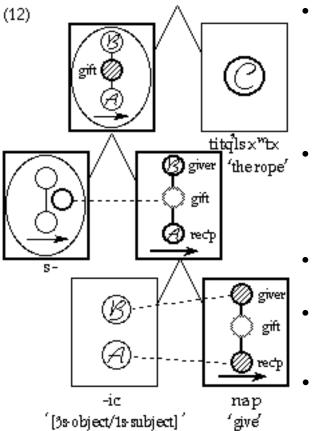
This use of possessors parallels Lushootseed's use of subjects to locate events in discourse by maintaining subject-topic continuity throughout a discourse episode (Beck 1996b).

Participial composition can make use of either the *s*-prototype (11a) or Subschema I (11b):

Lushootseed										
(11) (a) 2 s+hay+dx ^w ti?	ił ňu+s+ə+?ibəš	?ə	ti?i₽	duk ^w ibəł						
STAT+know+LC D	HAB+NOM+STAT+Walk	Pr	D	Changer						
'[he] knew that Changer would be travelling'										
(lit. '[he] knew [of] Changer's travelling')										
((Hess 1993: 143)			
	°ə? s+əs+q?™əl+b+s			s?uladx ^w	?al	ti?ə?	hud+s			
robbed+ICS PR D	NP+STAT+COOK+MD+3P	o Pr	D	salmon	Pr	D	fire+3po			
'[hea] stole the salmon hej was roasting on hisj fire'										
(lit. '[hea] stole hisj roasting-of-salmon on hisj fire')										
(Bierwert 199										

5) Compositional pattern III: Sentential nominalizations

The third compositional pattern, found in Bella Coola but not Lushootseed, nominalizes a (finite) verb and all of its objects, creating a grounded instance of an event. Here, the *s*-schema is applied to the verb at the level of composition following the elaboration of object and subject, as in (12) which shows the composition of *titqlsx^wtx tianpic* 'what I gave to the chief [is] the rope':



- first level of composition elaborates both subject and object using transitive agreement morphology (-*ic* '[3SG:OBJECT/1G:SUBJECT]')
 - recipients are direct objects of acts of giving in Salish
 - gifts are unprofiled participants
- next level nominalizes the expression
 - here, Subschema I is applied
 - *s* shifts the profile to a peripheral actant (the gift) in a reified event
- final level realizes the unelaborated participant
- (12) can be glossed as a full sentence when the participant C is rhematic (predicate) and the *s*-nominal is thematic (subject)
- the same construction may also be glossed as a relative clause, 'the rope that I gave him', when the *s*-nominal acts as a modifier of the NP *titqlsx^wtx* 'the rope'

Sentential nominalization can make use of the schematic prototype (13a) (and thus resemble complementation—*cf*. Kroeber 1991), Subschema I (13b), or Subschema II (see (17) below):

(Davis & Saunders 1978

(b) wic ?ac wa+s+?ałps+tu+m q^waž^w COP this D+NP+feed+CS+3SG:PASS raven 'this is what Raven was fed'

(Nater 1984)

In Bella Coola, sentential nominalizations are not only used as nominals and modifiers of nominals (RCs)—very commonly they act as adverbials, a role noted for English nominals by Halliday (1994) and for nominalized non-finite clauses by Langacker (1991). Bella Coola also uses the *s*-schematic prototype to form a variety of adverbials such as purposives and circumstantials: Bella Coola

(14) (a) ?ustx^w+aw ?ula+suł+aw s+kł+s ti+snǎ+tx go:in+3Pl PR+house+3PO NP+set+3SG D+sun+D 'they go into their houses when the sun sets'

(Nater 1984)

(b) taws+ulmx+c s+?ałwlaa+łł+c damp+ground+now NP+rain+PST+3SG 'the ground is damp, it having rained'

(Nater 1984)

The *s*-nominalizer is used in other cases much as a complementizer is used in more familiar languages, to subordinate the profile of the nominalized clause to that of the matrix clause, as in WH-questions and clefts:

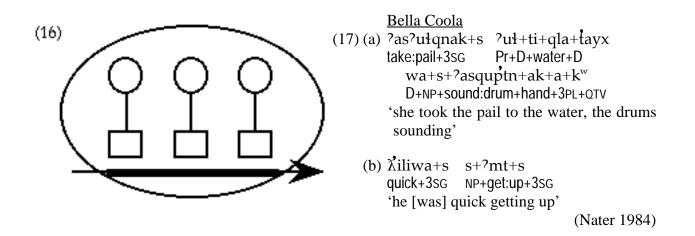
Bella Coola(15) (a) stam+naw+ks ?ac s+smłk+aw
what+3PL+INT these NP+fish+3PL
'what kind of fish are these?'
(lit. 'what are these, they being fish?')

(Nater 1984)

(b) ?ala?ayk'+ø+k^w s+q^wlxuł+cut+aw wa+xnas+c long:ago+3SG+QTV NP+gather+REFL+3PL D+women+D 'long ago the women would get together' (lit. '[it was] long ago that the women gathered')

(adapted from Nater 1984)

In addition, Bella Coola makes use of a second subschema of the *s*-prefix which appears not to be attested in Lushootseed. This subschema profiles the temporal extension of the event rather than the event itself, as in (16) and (17):



Expressions like these find parallels in English sentences such as "Crossing the street yesterday, he was hit by a car" and are clearly related to the use of the schematic prototype to form temporal and circumstantial adverbial clauses as in (13a) and (14) above.

6) Summary

Lushootseed and Bella Coola together manifest three types of nominalization:

- I. both languages use *s* to form lexical nominalizations
 - lexical s-nominals typically profile peripheral actants or relational landmarks
 - more lexicalized nominals may profile their trajector
 - in Bella Coola, *s*-nominalizations of adjective-like words profile a relational landmark
 - Bella Coola has a few transitive roots, which may profile direct objects or instruments
- II. Lushootseed applies *s* at the second level of composition for participial nominalizations
 - participials resemble analogous structures (participles and gerunds) in other languages
 - participants realized as subjects in finite clauses are realized as possessors
 - just as possessors of nouns identify specific instances of objects, possessors of participials serve to locate specific instances of events in discourse-space, as do subjects in finite clauses
 - participial nominalizations make use of both the s- prototype and Subschema I
- III. Bella Coola applies s- at the next level of composition, forming sentential nominalizations
 - sentential nominalizations function as nominals and modifiers of nouns
 - sentential nominals use both the *s* prototype and Subschema I
 - with the schematic prototype, uses of the *s*-prefix may resemble complementization
 - sentential nominals can also form adverbials and various other circumstantials
 - Bella Coola also uses a special subschema profiling the temporal extension of an event

The primary difference between Lushootseed and Bella Coola is compositional or syntactic:

- in complex expressions, Lushootseed adds *s* at the second level of composition, after the elaboration of the transitive object but before the elaboration of the subject
- Bella Coola applies the prefix after the elaboration of all direct actants
- portmanteau subject/object affixes force simultaneous application of subject and object
- convergence of the intransitive subject and possessive paradigms removes any morphological contrast between possessors of participials and subjects of intransitive clauses

Despite their differing compositional properties, however, all uses of s- can be shown to have a single schematic meaning, allowing us to fully account for the meanings and behaviour of s-nominalizations in the two most distantly related Salishan languages.

7) Conclusion: Finiteness, non-finiteness, and complementation

Synchronically, the distinction between the two compositional patterns raises an important question from the point of view of cognitive-functional approaches to language and linguistic structure. Given the compositional/syntactic differences between the two languages, is there any reason to suppose that the difference in compositional patterns corresponds to a difference in function or construal of *s*-nominalizations—in other words, has grammatical divergence resulted in a divergence in the use or conceptual structure of complement clauses?

In languages like English that make use of both participial and sentential nominalization (John's being drunk vs. That John is drunk), the conceptual distinction between the two is attributed to the absence/presence of tense and modality, which are said to be absent from participles but to be included in the scope of a sentential nominalization (Langacker 1991). In tense marking language like English, then, finite clauses can be said to be grounded in space (that is, identified as a unique event at a specified spatial location relative to the speech act) by their subject/trajectors whereas they are grounded in time (identified as a unique event at a specific temporal location relative to the speech act) by tense and mood. In Bella Coola and Lushootseed, however, neither tense nor mood are expressed in the verbal morphology and, more importantly, to the extent that they are expressed at all, they can be applied equally to verbs and nouns (Nater 1984; Hess 1993). Thus, in Lushootseed, participles bear as much marking for tense and mood as do "finite" clauses, which in Salish seem not to be temporally grounded so much by tense/mood as they are by the temporal extension of their participants, particularly their subjects (Davis & Saunders 1975; Demirdache 1996). As a consequence, sentential nominalizations in Bella Coola must be grounded in both space and time by their subjects, which implies that Lushootseed participles are grounded by their possessors, given that the possessors of participles—like the possessors of ordinary nouns and of Taylor's (1994) English deverbals-serve to locate specific instances of events. When their trajectors are specified, then, Lushootseed participles become fully grounded, making them the equivalent of Bella Coola sentential nominalizations, with the exception that in Lushootseed the grounding element (the subject) remains outside the scope of nominalization. Thus, a Lushootseed expression like $s \rightarrow sq^w u^2 \rightarrow tsi^2 i s + a d + a d \rightarrow y^2$ 'the gathering of the women' is conceptually indistinguishable from its Bella Coola counterpart $sq^w I \check{x} u t cutaw waxnasuksc$ 'that the women gather/gathered' other than that, in a particular context, the participle might be construed generically as an ungrounded instance of "gathering" rather than a specific instance thereof.

Just as many Lushootseed participial nominalizations seem best glossed by English sentential nominalizations (cf. the glosses for and), Bella Coola sentential nominalizations seem in some cases to serve as expressions of ungrounded instances of events, as in some of the examples in and above, which are most accurately glossed in English as participles. Thus, where English employs two strategies of complementation (syntactic complementation and participial nominalization) to distinguish two portions of a semantic field (the reification of grounded, specific versus ungrounded, generic events), Bella Coola and Lushootseed each employ different syntactic variants (sentential and participial nominalization, respectively) of a single strategy (morphological nominalization) to cover the same field as a whole. Given the absence of a semantic contrast between participial and sentential nominalization in either one of the two languages, it is hardly surprising that, in functional terms, their uses of *s*-nominals are also highly parallel, the primary syntactic function of the *s*-prefix in both being that of complementation—the subordination of the profile of one clause to that of another. In both languages, *s*- allows complex verbal expressions to serve subordinate roles as actants, modifiers, and predicate-complements. A minor difference in the uses of *s*-nominalizations is that Bella Coola forms temporal adverbials with *s*-

while Lushootseed does not, but given that Lushootseed forms other types of adverbial from *s*-clauses, this does not seem to amount to a major functional distinction between the two languages.

Perhaps a more significant difference is the widespread use of s-nominals in Bella Coola, illustrated in above, to form Wh-questions, clefts, pre- and post-posed topics, and similar expressions. In these roles, as noted by Kroeber (1991), s- most closely resembles the that-type of syntactic complementizer used in English and similar languages, particularly given the fact that the syntactic scope of the nominalizer is sentential (includes the entire clause and all of its actants) and the meaning of s- used in these cases is invariably the schematic prototype (pure nominalization). However, even in those cases where the use of the s-prefix accomplishes an additional shift in profile from an event to a nominal semantic argument (i.e. when Subschema I is applied), s- continues to be reminiscent of syntactic complementizers such as what (cf. the glosses of, 'what I give [to him]' and (c), 'what Raven was fed'), which affect a similar shift in profile. The typological contrast that this offers between languages that use a syntactic means versus languages that use a morphological means of complementation is an interesting one, and it is of particular note that in Salishan languages the preferred strategy for complementizing clauses is nominalization. What this seems to indicate is that in these languages the notion of "noun" or "nominal" is in some way linked to the notion of "subordinate" or "syntactic dependent" and that the reifying properties of the s-prefix, by creating constructions from verbs and verbal expressions that are conceptually nouns, create "conceptually autonomous" (Langacker 1991) entities which can then be incorporated into the profile of a larger expression by turning them into (or making them more like) nouns, which prototypically have this function. To a certain extent this observation also applies to English, which uses a morphological means to form nominal gerunds, but it remains to be seen to what extent this relationship between nominalization and complementation can be extended to other languages, particularly those that, like Bella Coola and Lushootseed, make heavy use of morphological processes of complementation.

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