

# Transitivity and Causation in Lushootseed Morphology

David Beck, University of Toronto

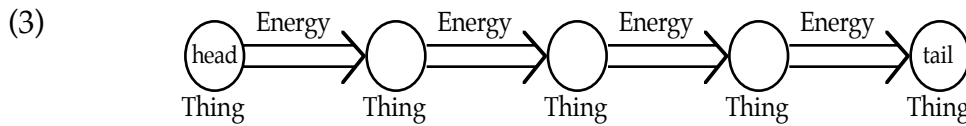
Lushootseed has a set of verbal endings which Hess (1993a) classifies as either *patient-orienting* or *agent-orienting* suffixes. Patient-orienting suffixes increase the valency of stems, as do some agent-orienting suffixes, cf. (1): D = deictic; f = feminine; P = preposition; pnt = punctual

- (1) (a)  $\text{?u+g}^w\text{ə}^c\text{+ə}d$  tsi čačas (2) (a)  $\text{?u+g}^w\text{ə}^c\text{+ə}d$  čəd tsi čačas  
 PNT+seek+patient Df child PNT+seek+patient I I Df child  
 'he/she looked for the girl' 'I looked for the girl'
- (b)  $\text{?u+g}^w\text{ə}^c\text{+ə}b$  tsi čačas (b)  $\text{?u+g}^w\text{ə}^c\text{+ə}b$  čəd ?ə tsi čačas  
 PNT+seek+agent Df child PNT+seek+agent I P Df child  
 'the girl looked for him/her' 'I looked for the girl'

- valency-increasing morphemes such as these add participants to the profile of an event by adding a link to the *action chain* (I) described by that event
- the agent-orienting suffix *-b* 'middle' adds an agent, but forms intransitive verbs
- patient-orienting suffixes— *-s* 'applicative', *-t* 'transitivizer', *-dx<sup>w</sup>* 'lack of control', and *-tx<sup>w</sup>* 'causative'—add an agent to an event-profile, but form transitive verbs

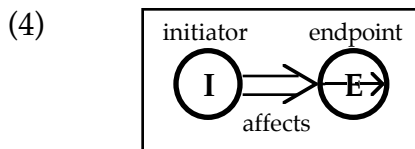
Cross-linguistically, instrumentals, causatives, and applicatives are known to increase the valency of verbs (Comrie 1989); the analysis presented here will show that (other than *-s*) Lushootseed valency-increasing suffixes are all causatives of a sort, the transitivity of the stems they form depending on their degree of conformity with the *transitive archetype* (II).

## I) The action chain (Langacker 1991)



## II) The transitive archetype

Transitivity and causation have been related in the literature (Hopper & Thompson 1980; Shibatani 1976; Comrie & Polinsky 1993). Langacker (1991) explicitly describes transitivity as a function of causal relations, the transitive event following the prototype in (4):

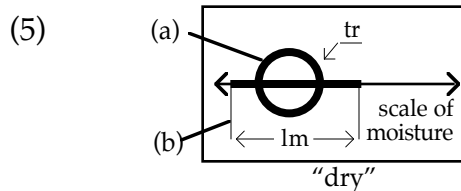


(based on Kemmer 1993: 50)

- two-place chain with distinct participants
- *initiator* transfers energy to *endpoint*
- initiator-endpoint interaction is causative
- endpoint undergoes 'internal' change of state (small arrow), ∴ endpoint is *affected*

## III) Cognitive Grammar Representations

- a) *trajector* (tr): primary clausal figure (subject). Dark lines = *profiled elements*.  
 b) *landmark* (lm): secondary clausal figure whose relation to tr = meaning of word. Here lm is *referential* landmark; when a clausal participant, lm = direct object.



#### IV) Two important constraints of Lushootseed grammar

- a) Only one third-person direct actant (subject or direct object) may be overt in a clause: in transitive clauses, third-person subjects are elided (1a); first- and second-person subjects in transitive clauses are realizable as pronominals (2a), which are not NPs.
- b) Oblique (intransitive) objects are not in the verb's profile and surface as a PP (2b).

#### V) Radical stems

Lushootseed verbs are formed on intransitive roots or 'radicals' (Hess 1993b); these may express the result of a transitive event, and take the endpoint as subject/trajector:

- |         |  |              |     |                                |              |
|---------|--|--------------|-----|--------------------------------|--------------|
| (6) (a) | $\text{ʔu+pus}$                        | $\text{čəd}$ | (b) | $\text{ʔu+čax}^w$              | $\text{čəd}$ |
|         | PNT+be-hit-by-flying-object            | I            |     | PNT+be-struck-by-stick         | I            |
|         | 'I am/was struck (by a flying object)' |              |     | 'I am/was struck (by a stick)' |              |
- (Hess & Hilbert 1976: II, 136)

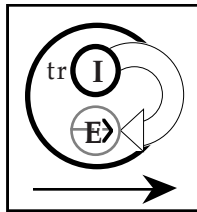
- radicals do not distinguish adjective from verb, the verbal notion of a relation over time being added by verbal affixes (cf. Givón 1979 and Bhat 1994 for cross-linguistic perspectives on verb-adjective conflation)

#### Agent-Orienting Suffixes

#### VI) -b 'middle'

- in middle voice, a subject acts 'on herself/himself (reflexive) or for herself/himself' (Trask 1993: 171), entailing a lack of distinguishability of event-participants (Kemmer 1993) and partial identification of participants in distinct semantic roles (Beck 1996)
- in Lushootseed both of Trask's middle meanings are realized by the suffix -b (MD)

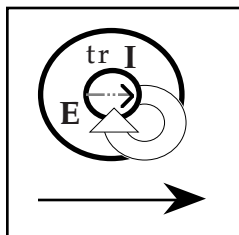
#### (7) Causative middle



- |     |                         |   |                                   |
|-----|-------------------------|---|-----------------------------------|
| (a) | $\text{łac}$            | > | $\text{łac+əb}$                   |
|     | 'cinched'               |   | 'cinch up one's belt'             |
| (b) | $\text{d}^z\text{ak}^w$ | > | $\text{d}^z\text{ak}^w\text{a+b}$ |
|     | 'shake, rock'           |   | 'wag one's tail'                  |
| (c) | $\text{šab}$            | > | $\text{šab+əb}$                   |
|     | 'dry'                   |   | 'dry sth'                         |
| (d) | $\text{q}^w\text{əl}$   | > | $\text{q}^w\text{əl+b}$           |
|     | 'ripe'                  |   | 'cook sth'                        |

- initiator (tr) is in a causal relation to an endpoint in its *possessive domain* (cf. Langacker's 1991 'dominion'), causing partial identification of the endpoint with the subject (more specifically, with the subject's body or the subject's interests)
- initiator is profiled, endpoint is not and must be realized with the preposition ʔə
- canonical middle is the only middle that increases valency, but it is not transitivizing

#### (8) Reflexive middle



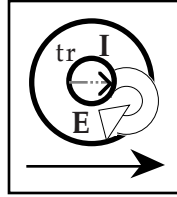
- |     |                                   |   |                                      |
|-----|-----------------------------------|---|--------------------------------------|
| (a) | $\text{həd}^?i\dot{w}$            | > | $\text{həd}^?i\dot{w}+b$             |
|     | 'inside'                          |   | 'go inside (house)'                  |
| (b) | $\text{pil}$                      | > | $\text{pil+əb}$                      |
|     | 'flat'                            |   | 'go flat'                            |
| (c) | $\text{d}^z\text{a}\dot{\lambda}$ | > | $\text{d}^z\text{a}\dot{\lambda}+əb$ |
|     | 'confused'                        |   | 'make mistake'                       |

- trajector acts upon itself rather than on a separate entity (initiator ≈ endpoint)

- similar in meaning to the true reflexive, which is formed from transitive verbs with a reflexive pronominal—however, reflexives imply that tr is a *unitary* entity (I = E)

(7) and (8) are related schematically to the prototypical middle in (9):

(9) Prototypical middle



Each of the morphemes above elaborates slightly on the pattern of the prototype, in which the initiator/trajector acts within its possessive domain and is identified with the endpoint, taking on the role of affected participant. The endpoint may be the tr itself (reflexive middle), or it may be another object in its domain (causative middle), thereby adding to the valency of the stem.

- reflexive use of *-b* expresses the limited causation involved in tr acting upon itself
- the causative middle adds a link to the action chain: the initiator acts causally on an endpoint in its possessive domain, resulting in partial identification of I and E
- middle voice does not conform to the canonical event model in (4), which requires two highly distinguishable event-participants (Hopper & Thompson 1980): thus, *-b* forms intransitive clauses

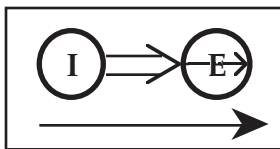
### Patient-Orienting Suffixes

#### VII) *-t* 'event-internal causative'

- adds a link to the action chain by adding an agent which acts on the endpoint
- object/endpoint of causative verb corresponds to the subject/trajector of the radical
- *-t* (ICS) has one prototypical representation and one subschema

Prototype is the transitive archetype:

(10)

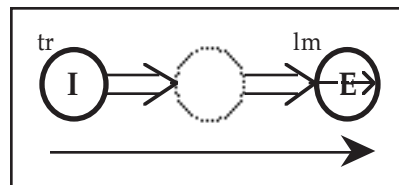


Subschema = verb + instrument:

- (a)  $\text{pus} > \text{pusu+d}$   
'hit by flying obj.' 'pelt s.o. (with sth)'
- (b)  $\text{tuč} > \text{tuču+d}$   
'get shot' 'shoot (sth at) s.o.'

- (a)  $\text{ɦič} > \text{ɦiči+d}$   
'get cut' 'cut sth'
- (b)  $\text{pīl} > \text{pīli+d}$   
'flat' 'flatten sth'
- (c)  $\text{q̣ʷəl} > \text{q̣ʷəl+d}$   
'ripe' 'cook sth'
- (d)  $\text{ləq} > \text{ləq+əd}$   
'hear' 'hear sth'

(11)



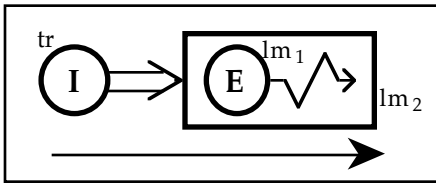
- instrument is unprofiled and may be realized by a prepositional phrase with ?ə
- related to instrumental and transitive-causative schemas in other languages (see Kemmer & Verhagen 1994)

- (d) modelled on (10) by analogy
- because the event-internal causative conforms so closely to the transitive archetype, *-t* has been referred to as a 'transitivizer'; however, other suffixes affect valency in the same way

### VIII) -tx<sup>w</sup> 'event-external causative'

- adds participant (tr) which is initiator of separate process of which it is not the trajector

(12)



- |     |        |   |                        |
|-----|--------|---|------------------------|
| (a) | ʔəʎ    | > | ʔəʎ+tx <sup>w</sup>    |
|     | 'come' |   | 'bring sth'            |
| (b) | ʔibəš  | > | ʔibəš+tx <sup>w</sup>  |
|     | 'walk' |   | 'take s.o. for a walk' |
| (c) | šul    | > | šul+tx <sup>w</sup>    |
|     | 'see'  |   | 'show'                 |

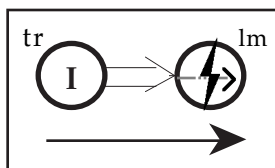
- the notion of 'separate process' is a matter of construal and in practice there is considerable overlap in direct- and indirect-causation (ics)

- |     |                                     |                                    |
|-----|-------------------------------------|------------------------------------|
| (a) | hədʔiw+d                            | hədʔiw+tx <sup>w</sup>             |
|     | 'take sth inside' 'take sth inside' |                                    |
| (b) | sula+d                              | sula+tx <sup>w</sup>               |
|     | 'place sth in centre of room'       | 'bring sth to centre of room'      |
| (c) | d <sup>z</sup> aqa+d                | d <sup>z</sup> aqa+tx <sup>w</sup> |
|     | 'fell sth'                          | 'lay s.o.'                         |
| (d) | ʔup <sup>u</sup> +d                 | ʔup+tx <sup>w</sup>                |
|     | 'seat s.o. on one's lap'            | 'seat s.o. on another's lap'       |

### IX) -dx<sup>w</sup> 'lack of control'

- creates a transitive stem designating an event in which the initiator does not have complete control over the outcome
- there are two construals, depending on which participant is felt to cause the initiator's lack of control—the initiator itself, or the endpoint

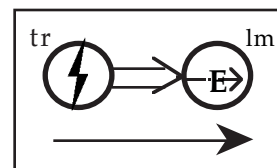
(13) Result achieved with difficulty



- |     |                          |                                     |
|-----|--------------------------|-------------------------------------|
| (a) | k <sup>w</sup> əda+d     | k <sup>w</sup> əd+(d)x <sup>w</sup> |
|     | 'take sth'               | 'manage to get sth'                 |
| (b) | šəc                      | šəc+dx <sup>w</sup>                 |
|     | 'be afraid' 'scare s.o.' |                                     |

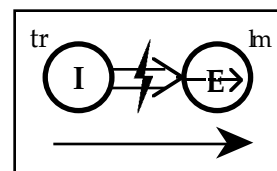
- in (b) tr can not control lm's reaction
- (d) reflects lack of full control over memory and other mental functions
- radicals have a 'preferred' subschema
- context may force the opposite reading, giving us the schema in (15)

(14) Subject acts inadvertently



- |     |                           |                                   |
|-----|---------------------------|-----------------------------------|
| (c) | g <sup>w</sup> al+d       | g <sup>w</sup> al+dx <sup>w</sup> |
|     | 'capsize sth'             | 'happen to capsize sth'           |
| (d) | laš                       | laš+dx <sup>w</sup>               |
|     | 'remember' 'remember sth' |                                   |

(15) Lack of control (LC) prototype



- patient-orienting suffixes encode causation by adding an agent to the action chain, thereby increasing valency and creating a transitive verb
- suffixes differ from one another in encoding degree of subject control or involvement

## X) Passive voice

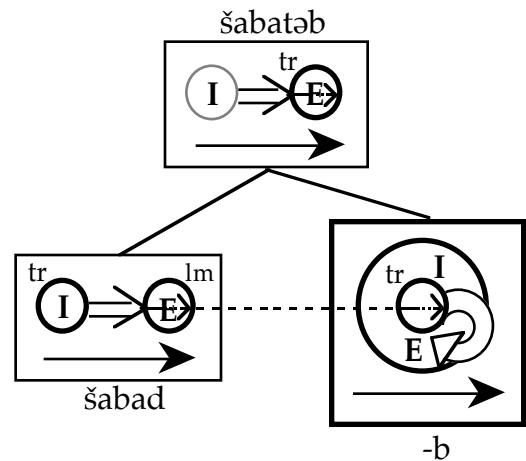
- passive voice demotes transitive subject to oblique position and promotes transitive object to subject (Mel'čuk 1993)
- formed by combining an applicative or another patient-orienting suffix with middle *-b*
- used to realize two overt third-person participants in a clause

- (a)  $\text{ʔu}+\text{šaba}+\text{t}+\text{əb}$      $\text{ʔə}$   $\text{tsi}$   $\text{lu}\lambda'$   $\text{ti}$   $\text{s}^{\text{ʔ}}\text{ulad}^{\text{w}}$     (c)  $\text{ʔu}+\text{ʔəy}'+\text{du}+\text{b}$      $\text{ʔə}$   $\text{ti}$   $\text{ča}\text{čas}$   $\text{ti}$   $\text{sq}^{\text{w}}\text{əbay}^{\text{?}}$   
 PNT+dry+ICS+MD    P    Df    old    D    salmon    PNT+find+LC+MD    P    D    child    D    dog  
 'the old woman dried the salmon'    'the boy found the dog'
- (b)  $\text{ʔu}+\text{ʔu}\check{\text{x}}^{\text{w}}+\text{tu}+\text{b}$      $\text{ʔə}$   $\text{ti}$   $\text{lu}\lambda'$   $\text{ti}$   $\text{ča}\text{čas}$     (d)  $\text{ʔu}+\text{ʔu}\check{\text{x}}^{\text{w}}+\text{c}+\text{əb}$      $\text{ʔə}$   $\text{ti}$   $\text{lu}\lambda'$   $\text{ti}$   $\text{ča}\text{čas}$   
 PNT+go+ICS+MD    P    D    old    D    child    PNT+go+APPL+MD    P    D    old    D    child  
 'the old man took the boy'    'the old man went after the boy'

(Hess 1993a: 29 – 38)

- the passive is built on a transitivized (patient-oriented) stem profiling a distinct initiator and endpoint
- like the middle, whose tr is identified with an endpoint, passives profile the *affected* element (transitive endpoint)
- middle voice is *profile determinant*, shifting subject/trajector status from the initiator of the transitive clause to the direct object (affected endpoint)
- the middle prototype does not include the non-thematic participant, which must thus surface as a PP, ∴ like a middle, a passive is intransitive

### (16) Composition of *šabatəb* 'to be dried'



## IX) Summary

- verbs are built up from stative roots by affixes that change valency and event structure
- agent-orienting *-b* suffix establishes a causative action chain with the trajector as initiator and some entity in its possessive domain as the endpoint
- patient-orienting suffixes create a prototypical transitive action chain
- this analysis also accounts for the inflectional properties of the passive voice
- Lushootseed morphology reflects a formal encoding of the causativity inherent in transitive constructions, and thus offers some insight into the relationship between transitivity and causation, and into the semantic characteristics of the transitive event

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