Semantic Role Assignment in Lushootseed Causatives
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0. Introduction

Bates (1997) argues that Lushootseed stems are subcategorized according to the semantic roles they assign and that each stem designates one role for assignment to its absolutive argument. Other roles are conveyed in oblique phrases. The semantic roles are drawn from a small universal inventory including Agent, Experiencer, Patient, Goal, Causer and Causee. For example, the intransitive predicate in (1), qə’alb ‘cook’, assigns Agent to its absolutive argument and Patient to the oblique. This property is encoded here in the semantic frame (Ag,Pat).

(1) qə’alb -as tsi s’ulaxq
STEM ABS SUBJ MRKR DIRECT COMPLEMENT OBLIQUE
cooks if she the woman the salmon
‘If the woman cooks the salmon’.

We employ underlining in the semantic frame to indicate the role assigned to the absolutive argument. This lexical marking is necessary, because, as Bates (1997) notes, Lushootseed surface intransitives can be unergative (e.g., yayus ‘work’); unaccusative, with a Patient subject (e.g., gives the semantic frame and the oblique. This property is encoded here in the semantic frame inventory including Agent, Experiencer, Patient, Goal, Causer and Causee. For example, the intransitive predicate in (1), qə’alb ‘cook’, assigns Agent to its absolutive argument and Patient to the oblique. This property is encoded here in the semantic frame (Ag,Pat).

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(2) a. pus-il (Ag,Pat, Gol) ‘throw’
   ?upusil čad ə to əsbuluxw’ilc
   asp-throw-intr 1sgS P DET ball
   ‘I threw the ball.’

b. yayus (Ag,) ‘work’
   ‘u-yayus 0 tsi s’ul̄aday?
   asp-work 3s DET-f nom-woman
   ‘The woman worked.’

c. ʔup (Pat) ‘end up on lap’
   ʔu-ʔup čad
   asp-end up on lap 1sgS
   ‘I sat on his lap (without the intention of either of us).’

Each of the sentences in (2) illustrates the predicate stem assigning its designated (underlined) role to the absolutive argument. In (2a), the first person singular subject is assigned the designated Agent role, while (2b) shows a third person subject marker with a coreferential DP realizing the designated Agent. The designated Patient role is assigned to the 1sgS in (2c). The oblique phrase in (2a) is assigned a non-designated role, Patient.

Hess (1993, 1995) categorizes stems as AGENT-ORIENTED or PATIENT-ORIENTED to describe the distinctions shown in (2). The present analysis extends that work and, following Bates (1997), shows how syntactic transitivity interacts with semantic role mapping. Hess (1995), concentrating on main clauses, employs neither transitivity nor the idea of an absolutive subject in his analysis. The present paper assumes Bates’s (1997) position that the morphosyntax of embedded clauses requires such descriptive machinery and we extend it here to the analysis of main clauses.

As argued in Beck (1996), transitivizing morphological processes create a subject-object relation and can have significant effects on the semantic properties of the resulting forms. The absolutive argument in a transitive clause is the object position, realized in first and second persons with an object suffix and in third person with a direct complement, possibly zero. A transitive stem, therefore, assigns its designated (underlined) role to an object, and has the subject available for mapping a non-designated role, most often Agent. The example in (3) shows a transitive stem based on the same root as the example in (1): intransitive qə’ol-b (Ag, Pat) and transitive qə’ol-d (Ag,Pat) assign the same roles but designate them differently.

(3) qə’ol-d (Ag,Pat)
   qə’ol čad tsi s’ulaxq
   STEM DIRECT COMPLEMENT
   ‘She cooks the salmon.’

We employ an input-output metaphor for the suffixing processes creating transitive stems. With regard to causative formations, the input includes all stem-forming suffixes preceding -txw, along with the semantic frame for that stem; the output is the full form in -txw including its semantic
frame.

In addition to adding a morphosyntactic argument position, causative -tx* imparts a distinction between Causer and Causee to the semantic frame of its input. Moreover, a -tx* formation is sensitive to the semantic structure of the input. When the input implies location or translocation, the output targets the Patient. These forms are discussed in Section II below. On the other hand, if no location or translocation is indicated, then the -tx* inherits the role structure of the input; these forms are discussed in Section I. As an example, compare the causative transitive forms in (4), based on the input structures from (2), repeated here for convenience. We represent the Causer-Causee distinction separately from the Agent-Patient-Goal distinction because Causer and Causee are regularly assigned to arguments that already bear one of the other roles. The example in (4a) shows a Causer that is simultaneously Agent. In contrast, (4b) shows a Causer that is not an Agent. An Agent Causer performs the action described by the stem (walking, singing, working, loading). A non-Agent Causer effects causation at some metaphorical distance from the stem's action (not sitting, but causing someone else to sit; not working, but causing someone else to work; not burning up, but causing something else to burn).5

(4) a. input: pus-il (Ag,Pat,Goal) 'throw'
output: pus-il-tx* 'throw someone (as in wrestling)'
output frame: Ag, Pat, Gol
?u-pusil-tu-bš
asp-throw-tr-1sgO
'He threw me.'

b. input: yayus (Ag) 'work'
output: yayus-tx* 'make someone work'
output frame: Ag
?u-yayus-tx*
asp-work-tr 3s
'they made me hold her on my lap (having first brought the baby to me).'

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I Non-Agent Causes: yayus-tx* 'put someone to work'

As mentioned above, causatives in -tx* often inherit the designated role of their input. When inheritance obtains, the absolute argument of the intransitive input corresponds to the absolutive argument of the transitive stem. (Indeed, this is one of the reasons that ABSOLUTE is the appropriate term here.) When the input has a designated Agent, -tx* forms behave just as Gerdts (1995) reports for Halkomelem causatives. In the -tx* form, the absolutive is an Agent Causee and the subject is a Causer. It is possible to predict when inheritance will govern role assignment in a -tx* formation, viz., when the input does not imply location or translocation. The stem yayus 'work', for example, designates Agent for its absolutive argument, and it forms a causative that also designates Agent: yayus-tx* 'make someone work'. The causative tūqʷ-tx* 'make someone cough' inherits the designated Experiencer role of its input stem tūqʷ 'cough'. The input stem tūqʷ 'snap in two' designates a Patient, and its -tx* output does also: 'stop a song'.

The examples discussed so far illustrate the two main classes of -tx* stems and we will return to them in Sections I and II. Two other classes of -tx* stems are more sensitive to the semantic structure of the resulting -tx* form than the semantics of the input. One class expresses psychological predicates (e.g., 'anger at', 'dislike of') and the other requires Goal as the designated role of the output, overriding any inheritance for the input. Sections III and IV describe and exemplify these classes.

The basic function of the -tx* is to transitivize the form and to add a semantic role of Causer that must be mapped to some position. (That is, the Causer role may not be implied.) The Causee role is designated for the absolutive argument in -tx* forms that denote psychological states, but in all other -tx* forms, the Causer maps to the subject position.7

We are now prepared to detail the various input-output relationships in -tx* forms and to bring much data to bear on the analysis. The next section discusses one of the most common patterns in -tx*.

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The examples in (5) illustrate

7 The examples are given here without reference to the other word-building properties of the roots to which -tx* attaches. It could be, however, that such reference is essential to the best treatment of Lushootseed verbal morphology as a whole (cf. Bates and Hess [in prep.]).

8 However, the following comment under the tūqʷ entry in the Lushootseed Dictionary makes it seem that 'the drummers' may be the absolute argument of the -tx* form. "This was done by making an abrupt spreading motion with the arms, palms down as a signal for the drummers to stop (as when they are not getting the rhythm right)." The corpus does not include an example with a direct complement, however.
these properties.

(5) input: output:
g“ad-il  g“ad-il-tx°
Ag Ag
Causer Causee
'sit down, get up' 'sit someone down (pick up and place him)'

(6) input: output:
yayus Ag  yayus-tx°
Ag Causer Causee
'work' 'put someone to work'
'u-yayus-tx°. Put him to work'9 'u-yayus-tx° ċax°. 'You gave him a job.'

The example in (7) is ambiguous between a non-Agent Causer reading for ?ibəš-tx° 'walk the dog' and an Agent Causer reading 'carry her while walking'. The former analysis is included here.

(7) input output
?ibəš  ?ibəš-tx°
Ag/Pat Ag/Pat
Causer Causee
'walk, journey 'walk someone, walk an animal, take someone out on a date'
by land'
'u?ibəštx° čad ti ḗq°?abat? čal k’i duk°?at. 'I will walk my dog tomorrow.
'u?ibəštx° tsi ḗq°?ab?'. He took the young woman on a date.
'u?ibəştub čad ḗq°bd, sbiaw. 'My father, Coyote, forced me to go on a journey.'

Bates (1997) employs the double role Ag/Pat to indicate automation. The example in (8) appears from the gloss to involve translocation, but could be glossed 'retire'.

(8) input output
təd°-il  təd°-il-tx°
Ag Ag
Causer Causee
'go to bed'
'u-təd°-il-tu-b ča? tsi?ti:sq° uy ti bəda?at. 'That mother put

The next example illustrates the causative inheriting the role structure of the intransitive base ‘eat’, including its non-designated Patient, the food eaten.

(9) input output
‘ə?at-tx°  ‘ə?at-tx°
Ag,Pat Ag, Pat
Causer Causee
'eat' 'feed someone'
‘ə?at-tx° ti ?acitabalx°. 'They fed the people.'
q(h) acitabalx° k°?i ču-‘ə?at-tu-b. 'Many people will be fed.'
baq° ‘əsq°?ib [k°?i] s-ə?at-tu-b-s. 'Everything was prepared that she was fed.'

Our final example of a non-Agent Causer appears in (10): the first gloss for the causative , 'make someone sing', fits the present pattern. The second gloss, 'turn on the radio', is more common in the Lushootseed corpus.

(10) input output
tɬil-b  tɬil-b-tx°
Ag,Pat,Gol Ag, Pat, Gol
Causer Causee
'sing' 'make someone sing; turn on radio; play musical instrument
‘ə?tɬil-b-tx° ča? tɬt°?at. 'I played the radio.'

Under the present analysis, the 'turn radio on' and 'play musical instrument' readings are metaphorical in that the 'singer' (the radio, musical instrument) is not a volitional actor in the event; nevertheless, an Agent analysis seems appropriate.

Our discussion now turns to another numerous class of causative stems: those that assign an Agent Causer role.

II Agent Causers: ‘uwx°-tx° 'take something somewhere'

The previous section showed that causative formation adds a Causer subject to an input that already assigns some role to its absolutive argument. The Causer role can simply "fill out" the semantic frame of the output, leaving the rest of the input role structure intact; this is inheritance. The present section discusses the other general pattern of role assignment in causatives, namely,
that wherein the Causer shares the subject position with an Agent and a competing generalization overrides inheritance.

As mentioned in the introduction to this paper, Agent Causers realize the subject of causatives whose input stem involves translocation or location of a Patient. The Patient need not be the designated role in the input, but the designated role of the output is always a Patient Causer. These -tx forms all imply translocation, and we include events of speaking and loading as translocative events, where the message or the load is Patient.

The following example shows that a locative input may result in a causative in this class denoting translocation with an Agent-Causer and a designated Patient.

(11) input output
?a(h) ?a(h)-tx
Pat Ag, Pat
Causer Causee
'be there' 'have / take something/someone somewhere'
x"ul'ax" cax+t u-?a(h)-tx" tsi?i+ qad?ax tsi?i+ sqig"ac. 'You will just have there Deer's intestines.'
?cad swatix+tad tsi?o? daxx-?a(h)-tu-b-g. 'To which country is it that they have been taken?'

The Goal role implied by the input and output forms in (12 - 14) can be realized in a prepositional phrase headed by a directional preposition. like dxw?al 'towards'.

(12) input output
pus-il pus-il-tx
Ag,Pat,Gol Ag, Pat, Gol
Causer Causee
'throw' 'throw something /throw someone (as in wrestling)'
'u-pus-il-tx" cax+t. 'I threw someone.'

The Lushootseed corpus contains many examples of causatives built on stems implying auto-motion, describing events of walking, canoeing, jumping, etc. The examples in (16 - 20) show Agent Causers who transport a designated Patient.

(13) input output
?u-uc-il ?u-uc-il-tx
Ag, Pat, Gol Ag, Pat, Gol
Causer Causee
'shoot' 'shoot a projectile'
'u-?uc-il-tx" cax+t. 'I shot the arrow.'

(14) input output
x"f-ag"-il x"f-ag"-il-tx
Ag,Pat Ag, Pat
Causer Causee
'climb down' 'bring someone/something down'

Events of buying and selling imply an Agent (the seller), a Goal (the buyer) and a Patient (the item exchanged). The examples in (15) illustrate the Patient designated in the causative form.

(15) input output
x"uyu-b x"uyu-b-tx
Ag,Pat,Gol Ag, Pat, Gol
Causer Causee
'sell'
'sell something'
'oi-x"uyu-b-tx" tsi?o? s?al?al c?ak. 'He sold our house.'
Snipe took that little wooden platter up from shore.'

Example (7) in the previous section showed that ?ibəštxʷ 'walk' is ambiguous between a non-Agent Causer reading, e.g., 'walk the dog' and an Agent-Causer reading. The latter is illustrated below.

Example (22) illustrates a causative denoting an event of speaking following the present pattern and designating the Patient, that is, the message, as the absolute argument.

The next section discusses causatives that contrast with (22) in targeting the Goal, rather than the Patient.

III. Causatives Designating a Goal: yəc-əb-txʷ 'tell someone'

To this point in the discussion, all the causatives in -txʷ have designated either an Agent-Causer or a Patient-Causee as their absolute argument. In addition to these, some -txʷ forms designate a Goal-Causer for their absolute argument in an interesting expansion of the derivational potential of the Lushootseed transitivising system.

If the input describes an event with actants Agent, Patient and Goal, as many predicates involving speaking or loading do, then -txʷ can designate a Goal role as absolute even if the input designates a Patient. This operation is more complex than either inheritance (Section I) or an output constraint (Section II). This role-switching strategy increases the voice-determining derivational potential of the transitivizing suffix system, because transitive in non-causative {-d / -t-} always inherit the designated role of their input. Many of the causatives which designate a Goal have counterparts in {-d / -t-} based on the same input which designate a Patient. The input frame matches the {-d / -t-} form, not the causative:

Example (23) illustrates a causative designating a Goal, two of which are ambiguous between the Goal reading and the non-Agent Causer reading. Not all of the input stems imply a Goal, but all of the -txʷ forms specify a designated Goal.

The corpus has ten examples of causatives that designate a Goal, two of which are ambiguous between the Goal and the non-Agent Causer reading. Not all of the input stems imply a Goal, but all of the -txʷ forms specify a designated Goal.

Example (24) illustrates an event of speaking following the present pattern and designating the Patient, that is, the message, as the absolute argument.
The examples in (27-29) show our analysis of events involving communication, where the audience is Goal.

Section I noted that example (10) tilibtx* is ambiguous between 'sing to someone' and 'make someone sing'. Only the first reading is relevant to the Goal pattern, and it is the only one analyzed in (30).

It is not clear whether the Goal is implied in the input or if the Goal is supplied by the _tx* formation.

The last and smallest class of causatives we review here denote psychological states. We turn to these in the next section.
IV. Psychological Predicates: saʔ-txʷ 'dislike someone'

The -txʷ form, but not the input, is a psychological predicate in this, the smallest class of -txʷ forms. The input stems either assign no role or they might assign Patient, depending on the predicate analysis of "adjectives", but the psychological predicate has a role structure unrelated to that of the input stem. The Causer is the designated role and the subject maps Experiencer.

(31) input output
saʔ? saʔ-txʷ
Pat? Exp, Causer
'bad' 'dislike someone'
saʔ-tu-hš čaxʷ. 'You hate me.'
put čəd saʔ-txʷ. 'I do not like it.'

(32) input output
dukʷ dukʷ-txʷ
Pat? Exp, Causer
'strange, bad' 'get angry with someone'
lə-dukʷ-tu-b tiʔ? səxə. 'She became angry with Coyote.'
xʷulʷ 'u-dukʷ-tu-b ʔə tʃiʔ? ʔə badaʔə. 'His daughter simply became angry with him.'

Our final example appears in (33):

(33) input output
hikʷ hikʷ-txʷ
Pat? Exp, Causer
'big' 'respect someone'
ahʔ? tiʔ? gʷ-əd-s-sə-hikʷ-tu-b ʔə ʔə t(ə) adlišəd. 'Your people will have great respect for you.'

The example sentence shows the 2sg subject prefix mapping the designated role of 'hikʷ-txʷ 'respect' in a passive construction.

V. Conclusion

This working paper grows out of our work (Bates and Hess (in prep)) on the derivational potential of Lushootseed stems. Although we have yet to conduct an exhaustive search of the literature on causatives, we believe that the generalizations above, about Goal arguments of causative predicates, are new to the literature on Lushootseed.

We have discussed four patterns of role assignment in causatives; these four are the most numerous in the Lushootseed corpus. Another common pattern involves the affixation of the causative suffix to predicates of negation; these are beyond the scope of the present paper, as are some interesting generalizations about the interaction of stative aspect and causatives.

REFERENCES


