1. Introduction

Languages of the New World present an important testing ground for generative theories of syntax—in particular the theory of government and binding (recently recast in Chomsky (1986) as the "barriers" framework and which I will refer to as the theory of "parameterized universal grammar"), which was created mostly under the influence of the study of western European languages. My work on Lushootseed has been driven not only by my interest in the language and culture native to the Pacific Northwest, but by my belief that the study of American languages has much to contribute to the generative theory of language, just as this theory has much to contribute to our understanding of the languages of the New World.

In this paper, I want to describe the morphology and syntax of the Lushootseed transitive sentence (S), invoking Jelinek’s (1985) Pronominal Argument Parameter to account for the complementarity between the morphological person marking paradigms (subject clitics and object suffixes) and full noun phrases (NP) representing verbal arguments. In addition, I will analyze the -d and -eb suffixes [suffixes with a somewhat controversial analytical history] as pronominal in the sense of the Pronominal Argument Hypothesis (PAH), and suggest that many of the properties of the Lushootseed transitive S follow from interactions of the PAH and the case assigning properties I assume for the Lushootseed S.

2. The Lushootseed person marking morphology

Lushootseed is an argument-dropping (pro-drop) language; that is, arguments of a predicate may be named by an independent noun phrase (NP, or nominal) or it may be omitted, the referent being inferred from context.

   STV-sleep DEM dog STV-sleep
   "that dog is sleeping" "he/she/it/they is/are sleeping"

If an argument of a verb is first or second person, it is realized as a second position (2P) clitic (in the case of subject) or a verbal suffix (in the case of object). Consider the following sets of clauses:

(2) tes 'hit (with fist)'
   ?u-tes(elt-s PNT-h1t(TR)-lsP =2s8 "YOU(sg) hit me"
   ?u-tes(e)t-ubu~ PNT-hit(TR)-lpP =2pP =1pS
   "I hit you(pl)"
   ?u-tes(elt-s PNT-h1t(TR)-lsP =2s8 "YOU(sg) hit me"
   ?u-tes(e)t-ubu~ PNT-hit(TR)-lpP =2pP =1pS
   "we hit you(pl)"
These morphemes are the only (unmarked) way to realize first or second person arguments of verbs. Lushootseed is different from more prototypical (Indo-European) argument dropping languages like Spanish, where the bound morphology marking the person and number of subject and object may cooccur with independent nominals:

(4) me peg-aste lso= hit-2sS(past.tense) "you hit me"
(5) ti me peg-aste a mf you 1s0= hit-2sS(past.tense) P me "you hit me" (emphatic)

As illustrated in (2) and (3), there are four subject clitics representing first and second person, singular and plural.

(6) The subject clitics

<table>
<thead>
<tr>
<th></th>
<th>singular</th>
<th>plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>first</td>
<td>=̩əd</td>
<td>=̩əx-</td>
</tr>
<tr>
<td>second</td>
<td>=̩et</td>
<td>=̩elep</td>
</tr>
</tbody>
</table>

The absence of one of these indicates a third person subject. Plurality of such a third person subject, when optionally indicated, comes in the form of a particle helg-e?, usually following the verb. (This same particle can indicate plurality of a third person possessor, which is marked by a suffix -s which is ambiguous for number. It has also been known to appear with unambiguously plural first or second person subjects and objects.)

These are 2P clitics, often referred to as 'Wackernagel clitics' after the 19th century Indo-Europeanist who first described the properties of this type of clitic in Indo-European. Since Lushootseed is verb initial, they normally follow the verb. When there is a preverbal adverb such as click'- 'very' or (he)la7b 'well', the clitics follow the adverb.

3. Third person arguments and the -d suffix

3.1 Construal of third person arguments

The absence of a first or second person marker indicates, as I have mentioned above, that the argument in question is third person. This is certainly true of subjects, as exemplified in (1) and (9) below.

(9) ?ulu+ tsiʔiʔ səadeʔ? PHT-canoe DEM "that woman is canoeing"

In (9a), interpretation of the subject of ?ulu, a one-place (intransitive) predicate, is forced to be coreferential with the adjunct nominal tsiʔiʔ səadeʔ? 'that woman'. In the absence of the adjunct nominal (9b), the subject is third person, but anaphoric, being determined by context. But what of third person arguments in transitive structures?

(10) a. ?u-tes(et)-d ̩əx- PHT-hit(TR)-D 2sS "you(hit me)"
b. ?u-tes(et)-d ̩əx- tsiʔiʔ stub? PHT-bit(TR)-D 2sS DEM "you(hit me) hit that man"
c. ?u-teste(-d) tiʔiʔat stub
PNT-hit(TR)-D DEM man
"he hit that man"
"that man hit him"

In (10a), the subject is realized with the second person singular subject clitic. The object is interpreted as third person, but note that the verb ends in a voiced [d] rather than [t]. Similarly, in (10b) and (10c), this voicing occurs. This should be contrasted with (11), where the nominals are interpreted as subject, and the objects are marked with suffixes.

(11) a. ?u-teste(t-e) tsiʔab
PNT-hit(TR)-1sO DEM man
"that man hit me"

b. ?u-k-ax-at-mid tsiʔab
PNT-help(TR)-2sO DET DEM
"that woman helped you"

3.2 Facts to be accounted for

There are generally three things which must be accounted for in these constructions. First, the appearance of two nominals in a simple transitive like the ones under discussion is ungrammatical.

(12) * ?u-teste(-d) tiʔiʔat stub tsiʔab
PNT-hit(TR)-D DEM noble DEM woman
"that noble hit that woman"

Second, when one of the arguments is overtly marked by a clitic or suffix (i.e., in first or second person), the other is assumed to be third person. Accompanying nominals are interpreted as coreferential with this third person argument. Note in particular pairs of the type:

(13) a. ?u-šal(at)-d șed tiʔiʔat šikʷ sq-ebyʔ
PNT-chase(TR)-D 1sO DET mean dog
"I chased that mean dog"

b. ?u-šal(at)-s tiʔiʔat šikʷ sq-ebyʔ
PNT-chase(TR)-1sO DET mean dog
"that mean dog chased me"

Finally, only when the nominal is not accompanied by a first or second person marker is its interpretation fixed as object.

The first of these facts is accounted for by case theory. The fact that only one NP is possible strongly indicates that there is only one (structural) case available to license an NP under the Case Filter. Structural cases may be assigned by a structural verb, or by the category INFL (Chomsky 1986).

As I have argued elsewhere (Hagiwara 1988), the aspectual system of Lushootseed cannot reasonably be interpreted as structural tense. Among the more compelling arguments for this case is the fact that time marking aspectual prefixes tu- 'past/remote' and FUT- 'future' may occur on nouns and adjectives as well as on verbs.

(14) a. time-marking aspect on verb

<table>
<thead>
<tr>
<th>Verb</th>
<th>Time</th>
<th>Aspectual Prefix</th>
</tr>
</thead>
<tbody>
<tr>
<td>tu-šal(at)-d</td>
<td>PST-chase</td>
<td>tu-šal(at)-d</td>
</tr>
<tr>
<td>PST-help-D</td>
<td>FUT-help-D</td>
<td>&quot;he chased it&quot;</td>
</tr>
<tr>
<td>&quot;she helped him&quot;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

b. on noun

<table>
<thead>
<tr>
<th>Verb</th>
<th>Time</th>
<th>Aspectual Prefix</th>
</tr>
</thead>
<tbody>
<tr>
<td>tiʔiʔat</td>
<td>PST-chase</td>
<td>tiʔiʔat</td>
</tr>
<tr>
<td>PST-help-D</td>
<td>FUT-help-D</td>
<td>&quot;he chased it&quot;</td>
</tr>
</tbody>
</table>

Thus, I argue that the category INFL is lacking in Lushootseed grammar, and only one structural case, that assigned by the verb, is available to license any NP. Sportiche (personal communication) has suggested that the last problem, that even when both arguments are third person an adjunct nominal must be interpreted as object rather than subject, may also be accountable by the case facts, but more analysis of the structural properties of the person marking suffixes will be required.

This leaves to be accounted the fact that, in principle, an adjunct nominal may be interpreted either as subject or object, depending which of the arguments is marked in the first or second person.

3.3 The -d suffix

Hess (1976) calls -d an allomorph of the -t transitive suffix, apparently conditioned by the absence of one of the object suffixes. Hess & Hilbert (1976) refer to a rule by which the (d) appears at the ends of words, but before a suffix and between vowels, it appears as (t). There is, it seems to me, another analysis.

It should be noted that distribution of the -d suffix (above, glossed as -d) is complementary with the other object suffixes. Paradigmatically, if not morphologically, the -d suffix marks a third person object. This analysis is not entirely original; Snyder 1957 also glosses -d as a person marking suffix.

It is true that -d seems to supplet the transitive -t (a fact marked in the data above by enclosing [t] along with the preceding epenthetic vowel in parentheses). However, there is a more general rule, in which the first of two similar consonants deletes over a morphological boundary (in the forms in (15), parentheses indicate that a phone is being deleted.)

(15) ped 'time of' + tab 'what' --> ped:+tab 'when'

Thus, a sequence -t-d 'TR-30' can reasonably be expected to be realized as [-t-d] only.
3.4 Excursus on the reflexive and reciprocal

The following data exemplify the reflexive and the reciprocal constructions.

(16) reflexive -sut
a. ?u-tes(e)t-sut ṣed
PNT-hit(TR)-RFL =1aS
"I hit myself"

b. ?u-tes(e)t-sut te stubš
PNT-hit(TR)-RFL DET man
"the man hit himself"

(17) reciprocal -ag-el
a. ?es-t'uc'ut-agwel ṣeṭ
STV-shoot-RCP =1pS
"we shot each other"

b. ?u-q-ulut-agwel ḳelep
PNT-hug-RCP =2pS
"you(pl) hugged each other"

In (16) and (17), the -sut and -agwel suffixes are again in complementary distribution with the other object suffixes and the -d suffix.

The fact remains that there is a gap in the subject clitic paradigm. First and second person singular and plural are overtly marked, but third person is not.

However, in non-matrix clause types, third person subjects are marked in the morphology. Note the examples in (20).

(20) Non-matrix clauses
a. subordinate
?es-Xe ṣed Ḫ=xal k-ṭ i ṣ-t'ičiš-b =s
STV-fear =1aS toward DET NON-swim-3POSS
"I am afraid of his swimming"

b. dependent
?es-Xe ṣed g-e-t'ičiš-b =e=s
STV-fear =1aS IRR-swim-3XS
"I am afraid for him to swim (I am afraid of his swimming)"

The pronominal paradigms extend in non-matrix clause types to include the third person, but all other facts remain essentially the same. The missing third person subject marker in the clitic paradigm can thus be regarded as an accidental gap, rather than as evidence of a person-hierarchical difference in the realization of a third person agent/experiencer under the Pronominal Argument Hypothesis.
4. The -eb construction

4.1 Properties of the -eb construction

With respect to (12) above, I said that the appearance of two nominals in a simple transitive was ungrammatical. Two nominals appear in a single clause, however, when accompanied by a verb with the -eb suffix.

(21) a. third person S and O

7u-k'ax-at-eb 7e ti d-stalet tsi d-sk'uy
PFT-help(TR)-EB P DET my-nephew DET my-mother
"My nephew helped my mother."

7u-k'ax-at-eb tsi d-sk'uy 7e ti d-stalet
PFT-help(TR)-EB DET my-nephew DET my-mother
"My nephew helped my mother."

b. first or second person objects

7u-k'ax-at-eb wad 7e ti d-stalet
PFT-help(TR)-EB =la P DET my-nephew
"My nephew helped me."

7u-k'ax-at-eb wad
PFT-help(TR)-EB =la
"He helped me."

With respect to the -eb construction, there are again several things in the data which need to be accounted for.

First, the verb in -eb elevates an oblique case (marked by the preposition 7e) in which an agent nominal may be expressed.

As exemplified in (21), nominals are freely ordered. There is a preference for the VSO order, but the other order is not uncommon. Of course either or both may be omitted.

Interestingly, first and second person patients are represented with subject clitics. First or second person agents are disallowed.

Finally, there are two more familiar problems. -eb is in complementary distribution with all the object suffixes, including -d and -mut, and the interpretation of the bare NP is fixed as patient (in the absence of -d), and the oblique NP (PP) as agent.

4.2 Analysis of -eb

The -eb construction has a varied ana lytical history, Snyder (1975) calls it "passive", saying "This suffix indicates that purposeful action is being directed toward the passive subject." This indicates that Snyder acknowledged the ability of -eb to name an actor acting on a patient marked with a subject prefix. "Passive" in this sense is not an unreasonable designation.

In this same vein, Hess (1973) observes that -eb may be used when the speaker wishes to focus attention on the "patient and his attitude toward his fate" (Hess, 1973): Hess glosses 7u-k'ax-at-eb as "He (insisted) on helping me (although I would have preferred to do it alone)." (p. 92). However, Hess points out that the -eb construction is the only one where the actor/experiencer can be named with a referential NP, and thus is not functionally equivalent to the passive construction in English. In keeping with the (1973) view that -eb is not "passive", Hess (1976) glosses -eb as "middle voice".

In the grammatical notes to Hess & Hilbert (in press), -eb is called "ergative": it has two principal functions. ...it provides for the explicit expression of an agent ... (This function is an innovation apparently unique to Lushootseed.) The label "ergative" is appropriate, in the same sense that "passive" was for Snyder; it is certainly true that the agent is marked in an oblique case, and the patient is represented in the same way as subjects of transitive verb (as clitics). This is a distinctive property of ergative productions.

However, here again, I wish to propose a different story.

Verbs in -eb assign a second, inherent, case, to an agent nominal, marked with the preposition 7e. Since this occurs under government within VP, both the bare NP (direct adjunct) and the oblique one are complements of V; free ordering of complements with respect to other complements of the same head is not unusual. For example the English dative constructions:

(22) a. John gave (a book) to Mary.
    b. John gave Mary (a book).

Both the accusative book and dative object Mary are complements of the verb give, but may occur in either order. This accounts for the first two properties mentioned above.

The final thing needing to be accounted for, that first and second person patients are represented with the subject clitics, is still in some sense a problem. But given that -eb is a morpheme, it is not impossible to conceive of it at least partly as a lexical operator, by which the morphological "object" slot is taken over, throwing the realization of patientive arguments to another, independently needed, person marking paradigm: the clitics.

Note that -eb is in complementary distribution with the object suffix in (19). Note as well that first and second person patients are represented overtly with the subject clitic paradigm. Even third person patient, when one recalls that the third person subject clitic is phon-
logically null, is always represented pronominally. Finally, the -eb construction is always interpreted with a third person agent/experiencer.

In the face of these observations, I analyze -eb as having the following properties.

(23) Properties of -eb

a. -eb is a pronominal marking third person agent/experiencers. As a result, first and second person agent/experiencers are disallowed. It is not "passive" in the sense of passive morphology in English, which does not mark person.

b. -eb is a lexical operator that "shifts" the realization of patient from the object suffix paradigm to the subject clitic paradigm. In this regard, it very much like a passive. It also cooccurs with the transitive (-t) suffix, but not the (-d) third person object suffix. Third person patients, like the first and second person patients, are realized with the (paradigmatic) subject clitics; the third person subject clitic is, as noted above, accidentally null.

c. -eb is a case assigner, or more accurately, a suffix which elevates a second (oblique) case for the verb to assign under government. In this sense, again, it is like the English passive.

The -eb suffix is best understood as a person marking suffix. But is the -eb construction a passive construction? This depends on the definition of "passive". If passive is a functional notion in which affectedness of an object is expressed without referring to an actor, then as Hees (1973) argues, it is not. If passive is a semantic operation, in which an (n) place predicate is made an (n-1) place predicate, then again the -eb construction is not a passive one.

But it cannot be denied that the -eb construction shares some properties with the passive construction in languages like English—in particular, those that passives share with ergative constructions. But generative syntacticians have proposed properties of ergative constructions not shared by the Lushootseed -eb construction. This said, I leave the question open.

Finally, the interpretation of the bare NP as coreferential with the patient and the oblique NP (PP) as coreferential with the agent/experiencer, while still somewhat problematic, is not surprising.

Recall that in the "plain" construction in Section 2, interpretation of the bare NP as object was required when neither of the arguments was first or second person. In the case of the -eb construction the same fact is in place. It may well be that whatever forces interpretation of the NP is related (only) to the presence or the absence of the first and second person object suffixes. The interpretation of the bare NP being fixed, the oblique NP is interpreted coreferentially with the remaining pronominal, the agent-marking -eb.
References


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Jelinek, Eloise, and Richard Demers (1986). "Constraints on Arguments in Lummi". In *Papers from the XXIth International Conference of Salishan and Neighboring Languages*, Vancouver, BC.


Notes

'This paper represents a portion of the research for my master's thesis. In this regard, it has gained immeasurably from discussions with many professors and students at UCLA. In particular, I wish to thank Pamela Munro and Paul Schacter for their insight, guidance and encouragement. I also wish to thank the participants in the Spring 1989 Seminar in Syntax and Semantics for their lively comments: Bonnie Chu, Chris Golston, Tomiko Hayashi, K. K. V. Kinyalolo, Emily Sittay and Dominique Sportiche.

I must also express my thanks to Vi Hilbert taq-Sblu and Thom Hess for sharing with me their knowledge and their patience.

Of course, all errors and omissions in this paper are exclusively my own, and probably remain against the better judgement and advice of those I have mentioned above—in particular, those I foolishly did not give a chance to give it.

'Data in this paper will mostly follow Lushootseed orthography from Hess & Hilbert (1976), except where orthographic conventions mask morphological structure. However, some typographical substitutions were made:

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>?</td>
<td>glottal stop</td>
</tr>
<tr>
<td>e</td>
<td>schwa</td>
</tr>
<tr>
<td>f</td>
<td>ejective lateral affricate</td>
</tr>
</tbody>
</table>

Other ejectives will be marked with a following apostrophe rather than an overstruck one.

Grammatical morphemes are glossed with capitalized abbreviations:

- **STV** stative aspect
- **PNT** punctual (completive) aspect
- **IRR** irrealis (subjunctive) aspect
- **PEL** past/remote aspect
- **FUT** future aspect
- **POS** possessor
- **DEM** demonstrative
- **DET** determiner
- **TR** transitive

Person marking morphemes are glossed in the form #XY, where the first number in the person ("1" is first person, "2" second, etc.), "X" is s for singular or p for plural, and "Y" is t for subject or o for object.

"Translations 'he', 'she', 'it' and 'they' are more or less interchangeable in all the data in this paper, but where paradigms are presented, gender and number of the referent will be preserved to avoid confusion.

I am at present uncertain as to the productivity of this suffix, but it cooccurs with the object suffix paradigm presented in this paper. Verbs occurring with one of the other transitive suffixes, notably -dx~ and -tx~, take a different, but completely analogous, set of object suffixes.

I am not, in fact, committed to this position. With recent developments in the theory, INFL has been subsumed by two categories, Tense and Agreement. Properties of these two categories are still being argued. It seems possible that it is Verb rather than INFL that is lacking. This might go a way to explain the seeming interchangeability of lexical nouns and verbs and the controversy concerning these two categories in Salishan. Here, the only crucial thing is that only one structural case is available.

I believe that even in the conjunction paradigm, in which the conjunctions ~eda, ~ex-~a, ~eda and ~elepa mark the subject of the following clause, the g-e1 conjunction can be thought of as marking third person subjects. I will need to check this with more research.

Hess (1976) and Hess & Hilbert (in press) have analyzed this suffix as simply -b, the schwa being epenthetic. For some reason, I have trouble overcoming the inertia in my own mind carried by my name for it, -eb, and will continue to refer to it that way.

In these and subsequent examples, I transate constructions in -eb in the active. This is in keeping with Hess's (1973) view that the -eb construction is not functionally passive, though it shares some properties of passive constructions in many languages. We will return to the question below.

The suffix has several functions outside the -eb construction, mostly:

<table>
<thead>
<tr>
<th>Case</th>
<th>Example</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>adverbial</td>
<td>?u-<del>ed-<del>up <del>e</del> ci</del>a</del></td>
<td>&quot;in the distance, far away&quot;</td>
</tr>
<tr>
<td>possessive</td>
<td>?e te 11i~</td>
<td>&quot;that man's name&quot;</td>
</tr>
<tr>
<td>goal</td>
<td>?u-~eb-slik-</td>
<td>&quot;be is drying the steelhead&quot;</td>
</tr>
</tbody>
</table>