A Skeletal Syntax of Puget Salish

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0. Introduction

This paper is divided into two major sections. Part I, The Data, is a cursory syntactic sketch of the bare essentials of Puget Salish simplex sentences. Part II, A Transformational Analysis, is a formal treatment of these bare essentials done in a transformational frame.

Our intent is to establish a working base for further syntactic exploration. We will frankly be surprised, though delighted, if major revisions are not required as the grammar is extended beyond the most elementary constructions. We apologize to readers who are familiar with Puget or neighboring languages for the limited scope of our analysis and invite comment on areas not discussed here which might lead to revisions in the analysis.

Puget Salish is the southernmost of the Central Coast Salish languages. The examples presented here come from the speech of Mrs. Louise George, a speaker of the Skagit dialect, to whom we give our thanks.

I. The Data

0. Puget Salish has two syntactically distinct means of marking terms. By "term" we mean a referring expression. In English, for example, terms are pronouns or noun phrases. In Puget terms may be signalled by person markers (subject clitics or goal suffixes) or by complements. "Complement" is used here for noun phrases or oblique noun phrases (i.e., prepositional phrases).

The person marker systems signal first and second person only, with the exception of reflexive objects and third person subjects in depen-
dent clauses. Otherwise, third person is unmarked in the person system but may be signalled through the optional use of complements.

1. The Proposition

0. Let us call the basic constituent of a Puget sentence the proposition. In a minimal sentence the proposition consists simply of a predicate.

1. ?alc'ut'ilib. (He/she/they) is/are singing.
2. ?uk'ax'ad. (He/she/they) helped (him/her/them).

Third person is not formally marked within the proposition (except for third person subjects of dependent clauses), so a minimal proposition may consist of an aspectual and a verb, as in the examples above.

1. ?alc'u + t'ilib
   progressive-sing

2. ?u + k'ax'at
   completive-help

1.1 Person Markers

These minimal propositions may be expanded upon to include first or second person markers.

3. ?alc'ut'ilib čad. I am singing.
   ?alc'u-t'ilib čad
   progressive-sing I

1   2   3
   1   2   3
4. \( ?u \text{a}x\text{a}x^\text{a} \text{acid c\={}ad} \).
   \( ?u\text{-k\={}ax\text{a}x\text{at-sid c\={}ad} } \) completive-help-you I
   1 2 3 4 1 2 3 4

The subject markers are personal clitics, introduced in independent clauses by the formative \( c\- \).

**Personal Clitics (Independent Clauses)**

<table>
<thead>
<tr>
<th></th>
<th>singular</th>
<th>plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>first p.</td>
<td>c{}ad</td>
<td>c{}at</td>
</tr>
<tr>
<td>second p.</td>
<td>c{}ax{}u</td>
<td>c{}al{}p</td>
</tr>
</tbody>
</table>

In dependent clauses the clitics appear in a suffix form without \( c\- \), loosely bound to the preceding word. As mentioned above, third person is marked in dependent clauses.

**Personal Clitics (Dependent Clauses)**

<table>
<thead>
<tr>
<th></th>
<th>singular</th>
<th>plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>first p.</td>
<td>-{}ad</td>
<td>-{}al{}i</td>
</tr>
<tr>
<td>second p.</td>
<td>-{}ax{}u</td>
<td>-{}al{}p</td>
</tr>
<tr>
<td>third p.</td>
<td></td>
<td>-{}as</td>
</tr>
</tbody>
</table>

5. tucuuc c\{}ad g\{}u\{}\text{a}x\{}\text{a}x\{}\text{os}.
   I told him to go.
   tu-cuuc c\{}ad g\{}u\{}-\{}\text{a}x\{}\text{a}x\{}-\{}\text{os}.
   1 2 3 4 5 6

remote-tell I hypothetical-go-3rd person
1 2 3 4 5 6
The personal clitics, whether in independent or dependent clauses, belong to a syntactic class of particles which appear postverbally only if the clause contains no auxiliary (propositional adverb), as discussed below.

The object markers are verb suffixes which we will call "goal suffixes". Their status as verb suffixes is demonstrated by the fact that their position is fixed, unlike the clitics'. As discussed by Hess (1973), goal suffixes have two allomorphs, one after the /-t/ transitive suffix and the other elsewhere. The elsewhere case is listed in parentheses below.

**Goal Suffixes**

<table>
<thead>
<tr>
<th></th>
<th>singular</th>
<th>plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>first p.</td>
<td>-s (-bŠ)</td>
<td>-ubuľ (-buľ)</td>
</tr>
<tr>
<td>second p.</td>
<td>-sid (-bicid)</td>
<td>-ubuľad (-buľad)</td>
</tr>
<tr>
<td>reflexive</td>
<td>-sut (-but)</td>
<td></td>
</tr>
</tbody>
</table>

A proposition, then, may contain one or two person markers:
a subject clitic and a goal suffix, intransitive verbs taking a subject clitic only.

The following are some of the possibilities for person markers in transitive and intransitive contexts.

Transitive

8. Subject clitic only:

\[ \text{\textasciitilde u-k\textasciitilde x\textasciitilde ad \text{-\textasciitilde d}.} \]
I helped (him/her/them).

\[ \text{\textasciitilde u-k\textasciitilde x\textasciitilde at \text{-\textasciitilde d}} \]
completive-help I

9. Subject clitic and goal suffix:

\[ \text{\textasciitilde u-k\textasciitilde x\textasciitilde ac \text{-\textasciitilde d}.} \]
You helped me.

\[ \text{\textasciitilde u-k\textasciitilde x\textasciitilde at-s \text{-\textasciitilde d}} \]
completive-help-me you

10. Goal suffix only:

\[ \text{\textasciitilde u-k\textasciitilde x\textasciitilde ac.} \]
(He/she/they) helped me.

\[ \text{\textasciitilde u-k\textasciitilde x\textasciitilde at-s} \]
completive-help-me

Neither:

2. \[ \text{\textasciitilde u-k\textasciitilde x\textasciitilde ad.} \]
(He/she/they) helped (him/her/them).

Intransitive

11. Subject clitic:

\[ \text{\textasciitilde u-t\textasciitilde l\textasciitilde w\textasciitilde il \text{-\textasciitilde d}.} \]
I ran.

\[ \text{\textasciitilde u-t\textasciitilde l\textasciitilde w\textasciitilde il \text{-\textasciitilde d}} \]
completive-run I
12. No subject clitic:

(He/she/they) ran.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>?es-tag'owax' xead</td>
<td>static-hungry</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14.</th>
<th>ck'waqid xed ?estag'owax'.</th>
<th>I am always hungry.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ck'waqid xed ?es-tag'owax'</td>
<td>always I static-hungry</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>15.</th>
<th>la?b xed ?estag'owax'.</th>
<th>I am very hungry.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>la?b xed ?es-tag'owax'</td>
<td>very I static-hungry</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Note that the subject clitic is attracted to the auxiliary. If more than one auxiliary is present, the subject clitic is attracted to a position after the first.

<table>
<thead>
<tr>
<th>16.</th>
<th>ck'waqid xoax la?b ?estag'owax'.</th>
<th>You are always very hungry.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ck'waqid xoax la?b ?es-tag'owax'</td>
<td>always you very static-hungry</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
1.3 **Particles**

The proposition may be further expanded to include various particles. Particles form a class of elements which occur after the verb if there is no auxiliary but which are attracted by the first auxiliary in a clause. The particle class includes subject clitics (discussed above), modal particles and the question particle ?u. Modal particles include *je-t* "must", *k'eda"maybe", k'el"reportedly" and *six"again".

The sequencing of particles is an area for further research. Apparently the subject clitic always precedes the other particles. We have, however, examples of the question particle both preceding and following modal particles.

17. ?æsq"ælob čeəx" ?u six". Are you tired again?

?æs-ælob čeəx" ?u six"

1 2 3 4 5

static-tired you question again

1 2 3 4 5

18. ?æstæg"ex" čeəx" jət ?u. You must be hungry?

?æstæg"ex" čeəx" jət ?u

1 2 3 4 5

static-hungry you must question

1 2 3 4 5

We do not know at this time whether this reflects subclass differences among modal particles or optional word-order differences (presumably with corresponding semantic differences). For the purpose of discussion, we assume that the question particle comes last in unmarked word-order, as this is more frequent.
The following schemata summarize the categories which may appear in a proposition, where parentheses indicate optional elements.

\[
\text{Aspect} + \text{Verb} + (\text{Goal Suffix}) + (\text{Subject Clitic}) + (\text{Modal}) + (\text{Question})
\]

or

\[
\text{Auxiliary} + (\text{Subj. Clitic}) + (\text{Modal}) + (\text{Question}) + \text{Aspect} + \text{Verb} + (\text{Goal Suff.})
\]

We return to a formal treatment of the proposition after discussing complements.

2. Complements

In addition to the proposition, a sentence may contain one direct complement (nonoblique noun phrase) and various oblique complements. The direct complement may be either the subject or the object of the sentence. We use the terms "subject" and "object" somewhat loosely here, with no implication that the subject is a daughter of the sentence and the object is a daughter of a verb phrase (as in Chomsky, 1964). By "subject" we mean fulfilling a role which may be fulfilled by a subject clitic. For example, the direct complement of (19), \( \text{te stubs} \), plays the subject role, as does the subject clitic of (20), \( \text{čad} \).

19. \( \text{ṭukwax'acid te stubš} \). The man will help you.

\[\begin{array}{ccccc}
\text{ṭu-k'ax'at-sid te stubš} \\
1 & 2 & 3 & 4 & 5
\end{array}\]

future-help-you the man

12345

20. \( \text{ṭukwax'acid čad} \). I will help you.

\[\begin{array}{ccccc}
\text{ṭu-k'ax'at-sid čad} \\
1 & 2 & 3 & 4
\end{array}\]

future-help-you I

1234
By "object" we mean fulfilling a role which may be fulfilled by a goal suffix. In the following example the direct complement in (21), te stubš, plays the object role, as does the goal suffix of (20), -sid.

21. ʔukʷaxʷad čəd te stubš.  I will help the man.

future-help I the man

In (19) and (21) the direct complements must be subject and object respectively. In (19) the goal suffix -sid fulfills the object role, so the direct complement must be the subject. Similarly, in (21) čəd is the subject, so te stubš must be the object.

A Puget sentence does not permit two direct complements. This may seem at odds with the system of person markers within the proposition, since it is possible to mark both subject and object by the use of person markers, as in (20) above. Further, the one direct complement, as we have seen, may be interpreted as either a subject or an object. But in a transitive construction if both subject and object are third person, a direct complement is always interpreted as the object. So, for example, the following sentence is unambiguous.

22. ʔukʷaxʷad te stubš.  (He/she/they) helped the man.

The only way of expressing both terms of a transitive construction as complements is to use the passive, where the patient (object of a transitive) is expressed as a direct complement and the agent (subject of a transitive)
3. The Passive

The passive construction is based morphologically on transitive verbs, marked with a -b suffix.

Active: ṭu-kʷaxʷatb (He/she/they) helped (him/her/them).
Passive: ṭu-kʷaxʷatb (He/she/they) was/were helped.

Within the proposition the passive construction is parallel to many European languages in that the object of a transitive verb corresponds to the subject of a passive.

Active: ṭu-kʷaxʷac (He/she/they) helped me.

Passive: ṭu-kʷaxʷatb ẓad I was helped.

A passive proposition contains no object marker, since the first or second
person element signalled by a goal suffix in an active construction is signalled by a subject clitic in the passive. Passive agents are not expressed in the proposition.

Outside the proposition, a passive agent may be expressed by an oblique complement. It is by means of the passive-oblique agent that both agent and patient may be expressed by complements. In the passive, the direct complement is always interpreted as the patient (corresponding to the object of an active construction).

23. ?ukʷaxʷatəb ?ə te stubš cə s'ładəy?.
   OBLIQUE  PATIENT
   AGENT

?u-kʷaxʷat-b ?ə te stubš cə s'ładəy?
1  2  3  4  5  6  7  8

completive-help-passive oblique the man the woman
1  2  3  4  5  6  7  8

24. ?ukʷaxʷatəb cə s'ładəy?  The woman was helped.
   PATIENT

4. Concluding Remarks

It is our intent in this very brief sketch to deal only with the most essential points of Puget syntax in attempting a first approximation of a formal treatment which appears below.

We have analyzed Puget sentences as consisting of a proposition plus optional complements (noun phrases). Further, only one monoblique complement is permitted in a simplex sentence. Perhaps the propositional constituent deserves some justification. We have posited this unit because
it forms the core constituent of the sentence, complements being optional. Further, complements act as though they are external to the constituents of the proposition. Particles normally do not follow complements. Similarly, complements are not attracted to auxiliaries (as are subject clitics), so complements do not appear within the constituents of a proposition.
II. A Transformational Analysis

0. Theoretical Preliminaries

The nature of underlying structures in a transformational analysis is, in part, a function of the model. In a semantically based grammar (e.g., Lakoff, 1971), where underlying phrasemarkers are at the semantic level, presumably all languages have the same set of phrase markers (assuming universal semantics). But in a syntactically based grammar with deep structures distinct from semantic representation it is at least an open question whether the base is universal (excluding lexical items which clearly are language specific). In a syntactically based grammar it is even an open question whether all languages draw from one set of deep structure categorical symbols. That is, it is possible that such major constituents posited in Chomsky (1965) as verb phrase, noun phrase and predicate phrase provide optimal descriptions for some but not all languages.

The following transformational analysis of Puget Salish is syntactically based. We assume Chomsky's Standard Theory (Chomsky, 1971), with a syntactic level of deep structure mapped onto surface structures by transformations and an interpretive semantic component mapping deep structures onto semantic representations. We offer no empirical evidence in favor of this model over a semantically based grammar. Our selection is based on practical considerations, not theory, and it should not imply any preference one way or the other on our part. The practical consideration at this point in our research is observational adequacy, providing a description that accounts for at least a restricted subset of the data.
The syntactic analysis presented here is superficial in the sense that the deep structures posited closely reflect potential surface structures. As a first approximation, this seems to be a reasonable approach. If it turns out that a "superficial" analysis is compatible with the facts and is as revealing of significant generalizations as a more "abstract" analysis, we feel the "superficial" analysis is preferable. Whenever the grammatical patterns of Puget seem to reflect universal categories these have been employed, as in the case of noun phrases. Wherever Puget grammatical categories do not, in our opinion, reflect universal categories we have used distinct labels. Thus while we have not gone out of the way to avoid a universal base, we have opted in favor of Puget-specific deep structure categories wherever these more closely reflect surface structure.

1. **Constituent Structure**

A deep structure analysis of sentences is in part a function of surface structure and the most economical set of transformations mapping deep structure onto surface structures. In this section we consider deep structure categories in Puget syntax. Their plausibility is partially a function of the transformational rules discussed in the next section.

Categorial rules forming the structures discussed here are presented in the appendix. We assume lexical insertion rules are local transformations and that they take place in a block before all other transformations.

1.1 **Sentential Constituents**

As suggested above, the proposition is the core constituent of the sentence with complements outside it.
The fact that a Puget sentence cannot have more than one direct complement will be reflected in the formation rules, so even at the level of deep structure no more than one direct complement will appear in a simplex sentence. The node AGENT should not be equated with semantic case. As shown below, it is possible for a semantic agent to appear in either an oblique or a direct complement.

1.2 Propositional Constituents

Inside the proposition are three major constituents: an optional auxiliary (AUX), the inflected verb (VB) and a particle phrase (Part Ph).

We assume here that AUX is a terminal category, immediately dominating a lexical item. In point of fact, it may dominate more than one item, suggesting it has internal structure. This is an area for further research.

1.3 The Particle Phrase

The particle phrase contains minimally an empty clitic node (discussed below), plus an optional modal (M) and an optional question marker (Q).
We assume the interpretation of these person markers to be semantic. For a verb such as k'ax at "help", the leftmost person marker is interpreted as the patient and the second as the agent. As shown below the (rightmost) person marker that is converted into a subject clitic has been moved into the empty clitic node (see Clitic Filling).

The spectral node (ASP) dominates an "internal" aspectual prefix. The internal aspectuals of Skagit are ?alc'u- "continuative", i.e.,
sive", ?u- "completive" and ?as- "static". The language has in addition external aspectual-like prefixes, including g'α- "subjunctive", žu- "habitual", ūu- "future", tu- "remote" and bo- "anew" or "again". These probably arise outside the VB node. ¹

1.5 Person Markers

The person markers will be assigned feature bundles by the formation rules:

\[
\begin{align*}
\text{PER} & \rightarrow [+ I] \\
[- I] & \rightarrow [+ II] \\
[+ I] & \rightarrow [+ \text{Plural}] \\
[+ II] & \rightarrow [+ \text{Plural}] \\
\end{align*}
\]

First Singular  
+ I  
- Plural  

First Plural  
+ I  
+ Plural  

Second Singular  
- I  
+ II  
- Plural  

Second Plural  
- I  
+ II  
+ Plural  

Third  
- I  
- II  

¹ T. Hess (1974) calls these "auxiliary prefixes", as distinct from the internal aspectuals. These auxiliary prefixes occur before possessive prefixes in nominalizations while internal aspectuals follow possessive prefixes. Possibly the auxiliary prefixes should be assigned to the auxiliary node.
We assume that lexical forms are not assigned to person markers in deep structure, but that they are inserted in a late pass through a special subset of the lexicon. This is necessary as the form of a person marker depends on whether it is converted into a clitic and this depends in part on the passive rule.

1.6 Complements

We will not focus on the internal structure of complements here. We leave it as an open question whether or not oblique complements should have special category labels or all be labeled something such as "prepositional phrase". In any case, we have labeled the oblique agent as AGENT, which in turn consists of an oblique marker ? to plus a noun phrase (NP).

The direct complement, as indicated in section 1.1, is simply a noun phrase. A noun phrase may consist minimally of a determiner (DET) and a noun (N). The determiner could be viewed as a feature bundle, although we will treat it here simply as a terminal category dominating a lexical item.

We leave as matters for further research the status of noun modifiers, including the possessives, and various types of subordination, including nominalization.

1.7 Some Deep Structures

As noted above, deep structures are in part a function of transformational rules mapping them onto surface structures. The greatest discrepancy between the following deep structures and the surface structures they underlie is the position of person markers, which will be discussed.
in section 2.

Proposition

\[ \text{S} \]

\[ \text{VB} \]

\[ \text{ASP} \]

\[ \text{V} \]

\[ \text{PER} \]

\[ \text{PER} \]

\[ \text{Clitic} \]

\[ \text{Proposition} \]

\[ \text{S} \]

\[ \text{NP} \]

\[ \text{Det} \]

\[ \text{N} \]

\[ \text{Proposition} \]

\[ \text{S} \]

\[ \text{ASP} \]

\[ \text{V} \]

\[ \text{PER} \]

\[ \text{PER} \]

\[ \text{Clitic} \]

\[ \text{Proposition} \]

\[ \text{S} \]

\[ \text{ASP} \]

\[ \text{V} \]

\[ \text{PER} \]

\[ \text{PER} \]

\[ \text{Clitic} \]

\[ \text{Proposition} \]

\[ \text{S} \]

\[ \text{ASP} \]

\[ \text{V} \]

\[ \text{PER} \]

\[ \text{PER} \]

\[ \text{Clitic} \]

\[ \text{Proposition} \]

\[ \text{S} \]

\[ \text{ASP} \]

\[ \text{V} \]

\[ \text{PER} \]

\[ \text{PER} \]

\[ \text{Clitic} \]
2. Transformations

Having discussed deep structures, we turn to the transformations which map them onto surface structures. Only major obligatory rules are considered here. We assume optional word orders are derived through the
application of optional movement rules.

2.1 Clitic Filling

The outermost person marker of the VB node is raised into an empty clitic node.

\(?uk\text{'ax}'acid \emptyset d. \quad \text{I helped you.}

Clitic Filling

\[
\begin{array}{c}
S \\
\text{Proposition} \\
\text{VB} \\
\text{ASP} \quad \text{V} \\
?u \quad k\text{'ax}'at \\
\text{PER} \quad \text{PER} \\
\text{Clitic} \\
\end{array}
\]

\[
\begin{array}{c}
\text{-I} \\
\text{+I} \\
\text{+II} \\
\text{-Plural} \\
\end{array}
\]

\[
\begin{array}{c}
\triangle \\
\text{-Plural} \\
\end{array}
\]

\[
\begin{array}{c}
S \\
\text{Proposition} \\
\text{VB} \\
\text{ASP} \quad \text{V} \\
?u \quad k\text{'ax}'at \\
\text{PER} \\
\text{Clitic} \\
\text{Clitic} \\
\text{-Plural} \\
\end{array}
\]

\[
\begin{array}{c}
\text{-I} \\
\text{+I} \\
\text{+II} \\
\text{-Plural} \\
\end{array}
\]

\[
\begin{array}{c}
\triangle \\
\text{-Plural} \\
\end{array}
\]
Formally, the clitic node may be viewed as containing a dummy symbol before Clitic Filling applies. While a person marker could be directly generated in the clitic by the formation rules, it is convenient for our analysis of the passive to generate both person markers in the VB node and to raise the outermost one, as discussed below.

If an auxiliary is present, the particle phrase is attracted to it after clitic filling has applied.

2.2 Particle Attraction

Since particles maintain a fixed sequential order when they are attracted to an auxiliary, the simplest description is to generate them in their appropriate order as a constituent, moving the whole constituent to the auxiliary.

\[ la?b \quad ?əstə\text{tag}ə\text{ex}w. \quad \text{I am very hungry.} \]
Clitic Filling:

```
S
  |  Proposition
  |  AUX  VB  Part Ph
  |  1a?b ASP V
  |       +I
  |       [-Plural]
  |       ?es tag'ex'
```

Particle Attraction:

```
S
  |  Proposition
  |  AUX  VB
  |  1a?b Part Ph  ASP V
  |       +I
  |       [-Plural]
  |       ?es tag'ex'
```

This rule accounts for the word order difference between sentences with or without an auxiliary.
Are you very hungry?

1a?b čexʷ ?u ?əstagʷəxʷ  
very you question static-hungry

Are you hungry?

?əst-əgʷəxʷ čexʷ ?u  
static-hungry you question

2.3 Passive

2.3.1 Passive and the Proposition

The treatment of the passive is the key element in our analysis. Looking first within the proposition, passive applies only of the outermost person marker is third person. The rule deletes this person marker and inserts -b immediately after the verb stem.

Proposition

```
ASP  V  PER  PER
|    |    |    |    
?u  kʷaxʷat  [+I]  [-I]
    [ -Plural ] [-II]
```

Passive:

```
ASP  V  b  PER
|    |    |    |
?u  kʷaxʷat  [+I]
    [ -Plural ]
```
Passive precedes Clitic Filling, which then applies, moving the remaining person marker (now outermost) into the empty clitic node.

This is followed by a late lexical insertion rule which replaces the person features of the clitic with ċād.

By ordering Passive before Clitic Filling we account for the fact that the goal suffix of an active construction corresponds to the subject clitic of a passive. If Passive had not applied to the structure above the first person marker would not have been outermost, so it could not have undergone Clitic Filling.

Active: ?ukʷaxʷac.  (He/she/they) helped me.

Passive: ?ukʷaxʷatəb ćād.  I was helped.

The active counterpart to the passive above undergoes the following derivation.
Deep Structure:

```
Proposition
  VB
  |ASP  V  PER  PER
  |?
  k\text{\textasciicircum}ax\text{\textasciicircum}at
  \[\begin{array}{c}
  I \\
  \text{-Plural} \\
  \text{-I} \\
  \text{-II}
\end{array}\]
```

Clitic Filling:

```
Proposition
  VB
  |ASP  V  PER
  |?
  k\text{\textasciicircum}ax\text{\textasciicircum}at
  \[\begin{array}{c}
  I \\
  \text{-Plural} \\
  \text{-I} \\
  \text{-II}
\end{array}\]
```

Note that the grammar generates third person subject and object markers, though neither is superficially marked in independent clauses. An alternative is to allow for the generation of empty person nodes which are automatically deleted. We chose the former analysis, since the outermost third person marker has the overt shape -as in dependent clauses and is syntactically parallel to the suffix forms of the first and second person clitics (e.g., undergoing particle attraction). We assume that all third person markers are deleted in independent clauses and that a third person
marker remaining within the VB node (a goal suffix) is always deleted. The conditions for deletion in the former case cannot be stated until more is known about the internal structure of dependent clauses.

2.3.2 Complements and The Passive

The central consideration in our treatment of the passive is the relationship of complements to the proposition. As stated above, a Puget simplex sentence may contain only one direct complement. Under the appropriate conditions, this direct complement may signal either the agent subject of the patient object of a transitive construction.

27. ?ukwaxwac te stubš. The man helped me.

SUBJECT/AGENT

\[?u-k^\text{wax}\text{w}at-s \text{ te stub}\text{s}\]
1 2 3 4 5

completive-help-me the man
1 2 3 4 5


OBJECT/PATIENT

\[?u-k^\text{wax}\text{w}at \text{ čad te stubš}\]
1 2 3 4 5

completive-help I the man
1 2 3 4 5

But the agent may also be introduced in an oblique complement, an agent phrase. Only in this case may both agent and patient be represented by complements.

23. ?ukwaxwatḥe ?e te stubš ce sลาดay?. The woman was helped by the man.

AGENT PATIENT

\[?u-k^\text{wax}\text{w}at-h \text{ ?e te stub}\text{s ce sลาดay}\text{?}\]
1 2 3 4 5 6 7 8

completive-help-passive oblique the man the woman
1 2 3 4 5 6 7 8
As indicated in the example, when an agent phrase appears, the verb is passive. We will, in fact, use the presence of an agent phrase as the triggering factor in the passive transformation.

Deep Structure:

```
S
  /\  
Proposition  AGENT  NP
  \  /  
  VB  Part Ph   ?a  NP  Det  N
     /\            \  /
    ASP  V  PER  PER  Det  N  ce  sladəy?
     /\        /\      /
   ?u  k'awat  -I  -I  te  stub<s
      \  /  
     -II -II
```

Passive:

```
S
  /\  
Proposition  AGENT  NP
  \  /  
  VB  Part Ph   ?a  NP  Det  N
     /\            \  /
    ASP  V  b  PER  Det  N  ce  sladəy?
     /\        /\      /
   ?u  k'awat  -I  -I  te  stub<s
      \  /  
     -II -II
```
The third person clitic will of course be deleted unless it appears in a dependent clause.

The agent node should not be equated with the semantic agentive case. A semantic agent may or may not appear in an oblique agent phrase. The following pair differ in this respect at the level of deep structure.

27. ?uk’ax’ac te stubš. The man helped me.
   ?u-?k’ax’at-s te stubš completive-help-me the man
   1 2 3 4 5 1 2 3 4 5

29. ?uk’ax’atəb čəd ?ə te stubš. I was helped by the man.
   ?u-k’ax’at-b čəd ?ə te stubš completive-help-passive I oblique the man
   1 2 3 4 5 6 7 1 2 3 4 5 6 7
Tree (27) will undergo **Clitic Filling** with subsequent deletion of the third person clitic. Tree (29) obligatorily undergoes **Passive** due to the presence of the agent phrase.
Note that deep structure propositions of (27) and (29) are identical. The sole reason for the application of Passive in (29) is the agent phrase.

A question arises as to the status of passive sentences with no overt agent phrase, since such sentences occur.

30. ʔukʷaxʷatəb čəd.  
I was helped.

ʔu-kʷaxʷat-b čəd  
completive-help-passive I
31. ꞌu-kꞌaxꞌat-b ꞌe stubš.  The man was helped.

The agentless passive could be explained by allowing the node AGENT to be unfilled (i.e., to contain the dummy symbol). Alternatively, and preferably, as we will see in section 3, the NP of the agent phrase may simply contain a pronominal feature matrix which is not realized lexically and which triggers the deletion of the agent phrase after Passive applies.

Deep Structure:
3. Deep Structure Constraints

As a consequence of freely generating person markers in the proposition, independently of complements, the grammar requires deep structure well-formedness constraints on coreferentiality between person markers and
and complements. The following phrase marker, for example, cannot underlie a surface structure and hence is not a deep structure.

\[
\text{S} \\
\text{Proposition} \quad \text{AGENT} \quad \text{NP} \\
\text{VB} \quad \text{Part Ph} \quad \text{?o} \quad \text{NP} \quad \text{Det} \quad \text{N} \\
\text{ASP} \quad \text{V} \quad \text{PER} \quad \text{PER} \quad \text{Clitic} \quad \text{Det} \quad \text{N} \quad \text{ce s} \text{lad} \text{a} \text{y?} \\
\text{?u k\text{"a}x\text{"a} at I} \quad \text{-I} \quad \Delta \quad \text{te stubs} \\
\text{-Plur.} \quad \text{II} \quad \text{-Plural} \]

The person markers are filled by first and second person features and hence the subject and object roles are filled, making it impossible to accommodate an agent phrase or a direct complement. Since this phrase marker can be generated by the formation rules, constraints must be imposed at the level of deep structure which filter out such ill-formed structures.

**Direct Complement Constraint:** the NP of the sentence (the direct complement) must be coreferential with

a) the innermost person marker, if this is [-I] and [-II]

b) otherwise, it must be coreferential with the outermost person marker, which must be [-I] and [-II].

**AGENT Phrase Constraint:** the NP of an agent phrase must be coreferential with the outermost person marker of two person markers, which must be [-I] and [-II].
A formal statement of these constraints will guarantee that subject and object roles are not doubly filled by complements and first or second person markers. We will not offer formalizations of these constraints here, though this can be done by various means. If, for example, all noun phrases and person markers contain a referential index in deep structure, it is simply a matter of checking for identity.

4. **Conclusions**

The syntactic sketch of Puget Salish presented above gives a rather "superficial" (close-to-surface) level of deep structure. We have opted for a language-specific approach in the following areas:

1. the dichotomy between propositions and complements,
2. deep structure person markers,
3. the existence of only one direct complement in deep structure.

The analysis is not unique however, and perhaps it is not as language-specific as it may at first appear, though it is motivated on language-specific grounds. McCawley (1971) suggests a dichotomy between propositions and noun phrases in universal grammar, arguing from a semantic point of view. Keenan (1972) also proposes that noun phrases are, in universal grammar, outside the basic sentence, although his underlying (semantic) structures introduce them through multiple sentential embeddings. Further, he proposes that pronominal elements are in the basic sentence (as in our proposition), bound referentially to the external noun phrases. Again, the analysis is primarily semantically motivated, although he cites various languages which make use of both person markers and noun phrases, doubly marking terms in some cases.
It would be interesting to see how the base given here compares to that of other Salishan languages. Unfortunately, the productivity and originality within the school of transformational grammar has yielded so many possible approaches that analyses are often incomparable. To cite a case in point, the radical differences between our Puget deep structures and those proposed for Bella Coola by Davis and Saunders (1973) can largely be attributed to different theoretical approaches. Davis and Saunders propose the following as the basic elements of a deep structure sentence.

\[
S \quad \text{Comment} \quad \text{Topic} \\
\quad \text{Agent} \quad \text{Patient} \quad \text{Adjunct}
\]

The elements of the topic are full noun phrases or person markers. Information is copied transformationally from the topic elements onto the predicate in the comment. In our analysis, such information (i.e., person) is generated within the proposition (roughly corresponding to their Comment) in deep structure. Further, we have no motivation for treating complements as one constituent in Puget (i.e., Topic), though such an analysis is probably compatible with the data.

Our differing approaches may reflect in part differences between the languages. As Davis and Saunders state, "Bella Coola is a VSO language."\(^1\) Superficially at least, Puget is not, since the situation never arises where the subject and object roles are both expressed by nonoblique complements.

---

This has had a profound influence on our analysis, causing us to handle person markers and complements in very distinct ways. It is formally possible to treat Puget as a VSO language, deriving all person markers transformationally from complements, though such an analysis would be much farther removed from the surface facts.

1 I am indebted to Thomas Hess and our informal discussions of Puget syntax, as well as Hess (1973).
Appendix A: Tentative Base Rules

The following context free phrase structure rules (1-7) generate the categorial symbols of deep structure phrase markers. In addition, we have included rules (8-11) specifying person features for person markers. Possibly other categories, such as the determiner and noun phrases will be expanded by feature specifications. Lexical insertion will be done by local transformations, using lexical subcategorization features as structural descriptions (as suggested at one point in Chomsky (1964)).

1. \( S \rightarrow \text{Proposition} \ + \ (\text{AGENT}) \ + \ (\text{NP}) \)
2. \( \text{Proposition} \rightarrow (\text{AUX}) \ + \ \text{VB} \ + \ \text{Part Ph} \)
3. \( \text{NP} \rightarrow \text{Det} \ + \ N \)
4. \( \text{Part Ph} \rightarrow \text{Clitic} \ + \ (M) \ + \ (Q) \)
5. \( \text{VB} \rightarrow \text{ASP} \ + \ V \ + \ \text{PER} \ + \ (\text{PER}) \)
6. \( \text{AGENT} \rightarrow ?\varepsilon \ + \ \text{NP} \)
7. \( \text{NP} \rightarrow \text{Det} \ + \ N \)
8. \( \text{PER} \rightarrow [^1] \)
9. \( [-I] \rightarrow [^4II] \)
10. \( [^4I] \rightarrow [^4\text{Plural}] \)
11. \( [^4II] \rightarrow [^4\text{Plural}] \)
Appendix B: Tentative Transformations

The following is a partial list of the rules described above, deriving surface structures from deep structures.

**Passive**
\[ X - V - PER - PER - Part Ph - AGENT - Y \]

SD: \[ 1 \ 2 \ 3 \ 4 \ 5 \ 6 \ 7 \]  
SC: \[ 1 \ 2+3 \ 3 \ \emptyset \ 5 \ 6 \ 7 \]

**Clitic Filling**
\[ X - V - Y - [\alpha F] - [\wedge] - Z \]

\[ \text{PER Clitic} \]

SD: \[ 1 \ 2 \ 3 \ 4 \ 5 \ 6 \]  
SC: \[ 1 \ 2 \ 3 \ \emptyset \ \begin{bmatrix} 5 \ \alpha F \end{bmatrix} \ 6 \]

That is, all feature specifications of the outermost person marker are assigned to the dummy clitic.

**Particle Attraction**
\[ \# \# [\wedge AUX] - X - Part Ph - Y \]

SD: \[ 1 \ 2 \ 3 \ 4 \]  
SC: \[ 1+3 \ 2 \ \emptyset \ 4 \]

That is, the particle phrase becomes a sister to the first lexical item marked [AUX]. We assume that lexical items are specified with features for lexical categories.
Agent Deletion

\[ X - \left[ ?_a \left[ [ \text{Pro} ] \right] \right] - Y \]

\begin{align*}
\text{SD:} & \quad 1 \quad 2 \quad 3 \Rightarrow \\
\text{SC:} & \quad 1 \quad \emptyset \quad 3
\end{align*}

That is, if an agent phrase contains a noun phrase marked \[ \text{[Pro]} \] it is deleted.
References


