Tree and String Analysis of a Copala Trique Sentence

Bruce Hollenbach and David Thomas

This paper is simply a presentation of two analyses of the same Copala Trique sentence. The first analysis is done by David Thomas and represents a string analysis, with a distinction between deep structure and surface structure. The second analysis is done by Bruce Hollenbach and represents a tree analysis done from the point of view of generative semantics. We hope that this presentation may be useful to those who might be interested in comparing and contrasting these two analytical techniques. The sentence is the following:

reke_32 dyose_5 ze_9 za_5 ma_3 ni_32 zih_5 noko_5

give God stuff good to us who follow

ma_3 zo_3

to him

String Analysis

The formulas are followed by diagrams of the structures, concluding with a summary diagram of deep structure constituents and the corresponding surface form (DS = deep structure, SS = surface structure.) The formulas do not give the full range of Trique structure but only give enough of each formula as is relevant to the sentence at hand. (\rightarrow = is manifested as)

A well-formed Statement Sentence = +Statement:Clause/...+Inton.

DS Statement \rightarrow SS Clause

(Discourse)

Sent: Cl

God gives good stuff to us who follow him

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A well-formed Benefactive Clause = +Pred:VP<sub>ben</sub> / .... +Agent:NP/ .... +Patient:NP/ .... +Later Possessor:RelAxP/ ....

DS Pred, Ag, Pat, LatPos → SS Pred - Ag - Pat - LatPos

\[
\begin{array}{c|c|c|c}
\text{Pr:VP} & \text{A:NP} & \text{P:NP} & \text{Lat Pos:RAP} \\
\hline
\text{Give} & \text{God} & \text{Good Stuff} & \text{To Us Who Follow Him}
\end{array}
\]

A well-formed Benefactive Verb Phrase = +V:V<sub>ben</sub> / ....

DS Action → SS V<sub>verb</sub>

A well-formed Noun Phrase = +NH:N/RelCl/NN/ ... ± Mod:Adj/ ....

DS Item, Characteristics → SS NH-Mod

\[
\begin{array}{c|c|c}
\text{Verb Phrase} & \text{Noun Phrase} & \text{Noun Phrase} \\
\hline
\text{V:V<sub>ben</sub>} & \text{NH:N} & \text{NH:N} \\
\text{Give} & \text{God} & \text{Stuff} \\
\end{array}
\]

A well-formed Relator-Axis Phrase = +Rel:ma<sup>3</sup> ± Axis:NP/ ....

DS Marker, Item → SS Relator, Axis

A well-formed Relative Clause = + Mark:zih<sup>5</sup> +Clause:BenCl/ ....

DS Marker, Clause → SS Agent-zih<sup>5</sup> - V<sub>ben</sub> - LatPos

\[
\begin{array}{c|c|c|c|c|c|c|c|c|c}
\text{RelAxP (DS)} & \text{Rel:ma} & \text{Ax:NP} \\
\hline
\text{MA} & \text{N:Pron} & \text{N:RelCl} \\
\text{WE} & \text{Rel:zih} & \text{Cl:Cl<sub>ben</sub>} \\
\text{ZIH} & \text{Pr:V} & \text{Ag:Pron} & \text{LatPos:RAP} \\
\text{(relator)} & \text{Follow} & \text{ZIH} & \text{Rel:ma} & \text{Ax:N} \\
\text{(pronoun)} & \text{MA} & \text{GOD}
\end{array}
\]

ss: Ma We Zih Follow Ma God
lexemes: GIVE, GOD, STUFF, GOOD, MA, ZIH, FOLLOW, WE
- see dictionary for forms

pronominalization: When a lexeme is to occur twice in a sentence, the second occurrence is substituted for by the appropriate pronoun. Lexemes denoting men take him as their pronoun.

COMBINED DIAGRAM OF DEEP STRUCTURE

ULTIMATE SURFACE FORM
Give God Stuff Good Ma We Zih Follow Ma God

TREE ANALYSIS

The logical structure of the sentence is given first. It is understood that, apart from differences regarding which features must be specified, this structure represents the meaning of the sentence for any language in which it might be uttered. Then follow the derivational processes which are necessary in order to convert the logical structure into the surface structure peculiar to Copala Trique.
LOGICAL STRUCTURE

Pred. Agent- Former Possessor
   | Pred. Patient
   |   Later Possessor
   |   GIVE GOD
   |   STUFF Spec.
   |   WE Spec.
   |   Pred. Patient
   |   Attr. Pred.
   |   Agent- Reference
   |   Patient Locative
   |   BE STUFF GOOD FOLLOW WE GOD
   |   3rd
   |   sg.

CYCLE 1 BEGINS - embedded propositions only

PREPOSITION INSERTION:
Later Possessor
   WE Spec.
Pred. Agent- Reference
   Patient Locative
   FOLLOW WE MA³ GOD
   3rd
   sg.

SUBJECTIVALIZATION and OBJECTIVALIZATION
would normally occur here, but these processes seem to be unnecessary for Copala Trique

LINEARIZATION

Pred. Agent- Former Possessor
   | Pred. Patient
   |   Later Possessor
   |   GIVE GOD
   |   STUFF Spec.
   |   WE Spec.
   |   Pred. Patient
   |   Attr. Pred.
   |   Agent- Reference
   |   Patient Locative
   |   BE STUFF GOOD FOLLOW WE MA³ GOD
   |   3rd
   |   sg.
RELATIVE FRONTING:

```
Patient
   STUFF Spec. Prop.
     N V Adj.
  STUFF BE GOOD

Later Possessor
   WE Spec. Prop.
     N V N
  WE FOLLOW I'A 3 GOD
    [3rd] [sg.]
```

BE DELETION:
(Perhaps optional - conditions
of application not known)

```
Patient
   STUFF Spec. Prop.
     N Adj.
  STUFF GOOD

Later Possessor
   WE Spec. Prop.
     N V N
  WE FOLLOW I'A 3 GOD
    [3rd] [sg.]
```

RELATIVE SUBSTITUTION:
(Only for personal pronouns)

```
Patient
   STUFF Spec. Prop.
     N Adj.
  STUFF GOOD

Later Possessor
   WE Spec. Prop.
     N V N
  ZIH FOLLOW I'A 3 GOD
    [3rd] [sg.]
```

EQUI-N DELETION:

```
Patient
   STUFF Spec. Prop.
     Adj.
  GOOD

Later Possessor
   WE Spec. Prop.
     N V N
  ZIH FOLLOW I'A 3 GOD
    [3rd] [sg.]
```
RELATIVE INCORPORATION

CYCLE 2 BEGINS - matrix proposition
PREPOSITION INSERTION:
(in this case marking Later Possessor)

SUBJECTIVALIZATION and OBJECTIVALIZATION would occur here, if necessary

LINEARIZATION:
and PRONOUN SUBST. (OPT.):
(for second and later occurrences of same nominal element)

TREE DELETION:
and SYMBOLIZATION: