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Parsing Polysynthesis

POLYSYNTHETIC LANGUAGES

- Words composed of many morphemes, to the extent that an entire sentence can be made up of a single word.

a. *Wičháša ki hená wówapi*
man the those book
ki Ø-wičhá-wa-k'u.[4]
the INAN-3PL.ANIM.U-1SG.A-give
'I gave the book to those men.'

b. *Wičháwak'u.*
'I gave it to them.'

- Most grammar formalisms cannot easily account for sentences like these.

LEXICAL FUNCTIONAL GRAMMAR

c-structure appears very minimally and the f-structure is flexible enough to account for polysynthetic aspects of language

wirri-wudu-miyn,
3PL/3NEUT-liver-get.PP
'They got the liver (NEUT)

(26) *wirri-wudu-miyn*
(↑ PRED) = 'get<(SUBJ)(OBJ)>'
(↑ OBJ (∈)) = ↓
(↓PRED) = 'liver'
(↓INDEX PERS) = 3
(↓INDEX GEND) = NEUT
(↑ OBJ INDEX GEND) = NEUT

(27)
$$\begin{bmatrix} \text{SUBJ} & \begin{bmatrix} \text{PRED} & \text{'PRO'} \\ \text{INDEX} & \begin{bmatrix} \text{PERS} & 3 \\ \text{NUM} & \text{PL} \end{bmatrix} \end{bmatrix} \\ \text{PRED} & \text{'GET<(SUBJ)(OBJ)>'} \\ \text{OBJ} & \begin{bmatrix} \text{INDEX} & [\text{GEND} \quad \text{NEUT}] \\ \text{CONJ} & \text{AND} \\ & \left\{ \begin{bmatrix} \text{PRED} & \text{'LIVER'} \\ \text{INDEX} & \begin{bmatrix} \text{PERS} & 3 \\ \text{GEND} & \text{NEUT} \end{bmatrix} \\ \text{CASE} & \text{NOM} \end{bmatrix}, \begin{bmatrix} \text{PRED} & \text{'HEART'} \\ \text{INDEX} & \begin{bmatrix} \text{PERS} & 3 \\ \text{GEND} & \text{NEUT} \end{bmatrix} \\ \text{CASE} & \text{NOM} \end{bmatrix} \right\} \end{bmatrix} \end{bmatrix}$$

ROLE AND REFERENCE GRAMMAR

1) "What would linguistic theory look like if it were based on the analysis of languages with diverse structures such as Lakhota, rather than on the analysis of English?"
2) "How can the interaction of syntax, semantics, and pragmatics in different grammatical systems best be captured and explained?"

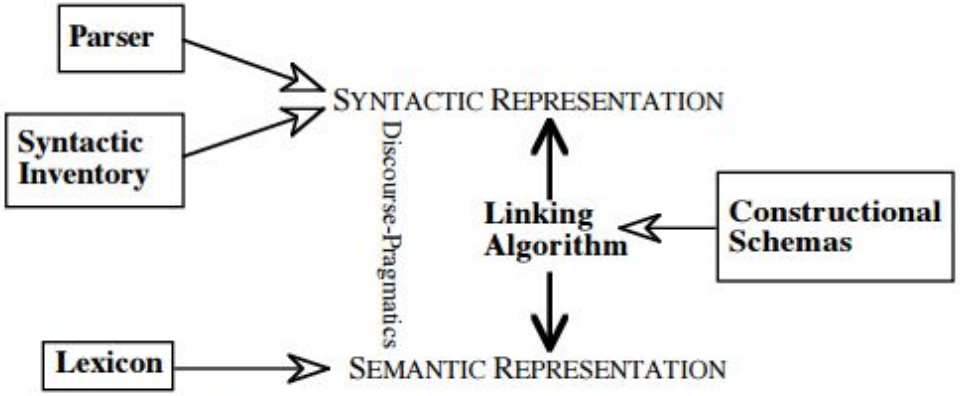

Figure 1: Organization of Role and Reference Grammar

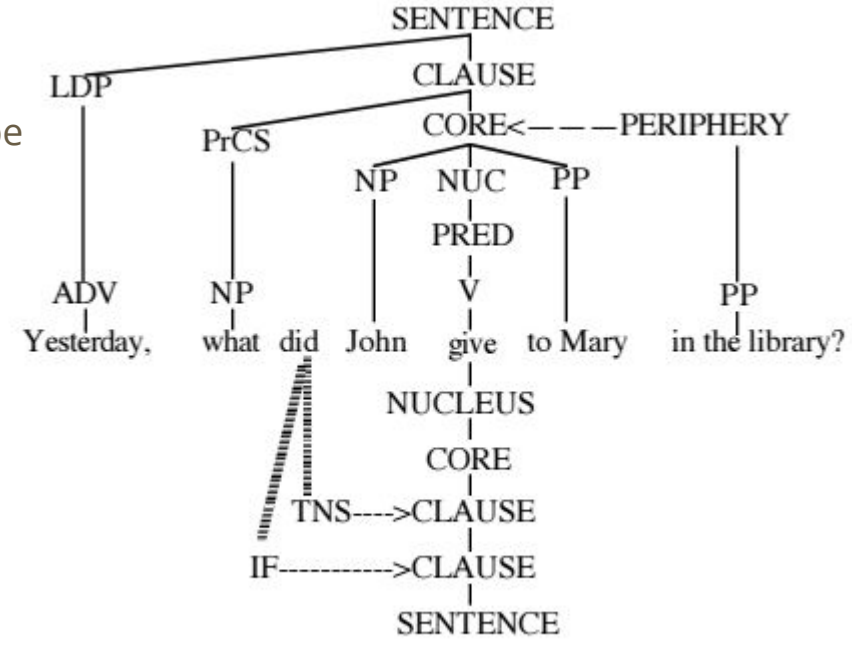

Figure 3: The LSC in English

RRG

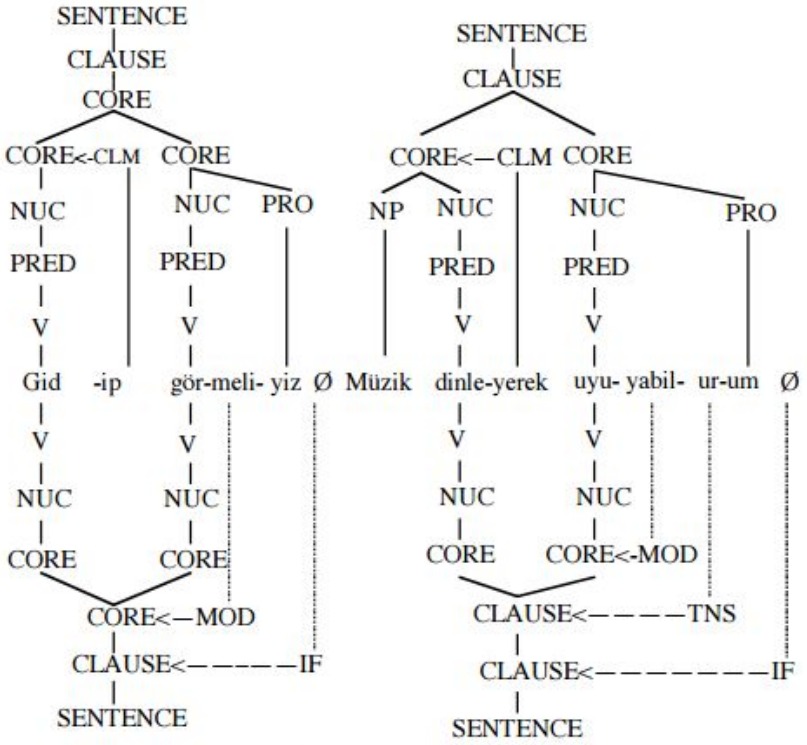

Figure 10: Turkish Core Junctures

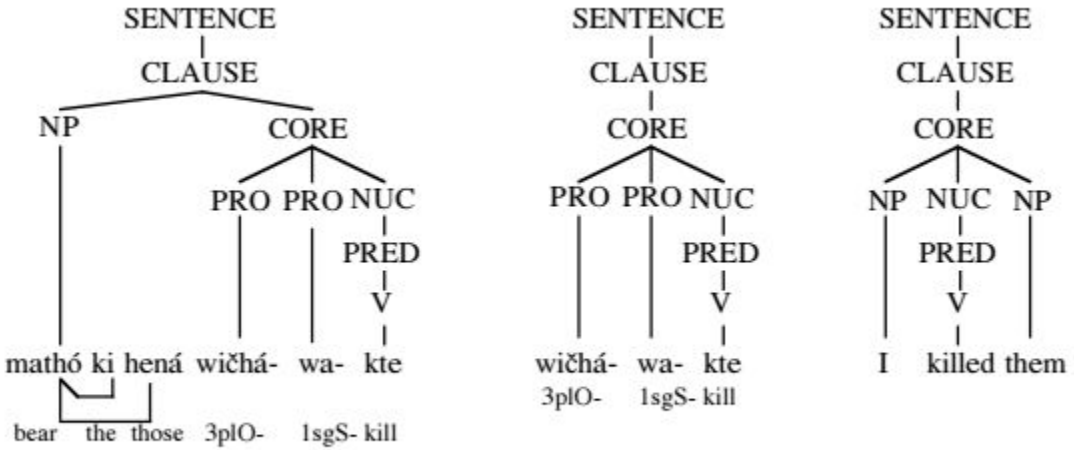

Figure 5: The LSC in Lakhota (Head-marking) and English (Dependent-marking)

*"We ought to go and see." / "While listening to music, I can sleep."

By lacking X-Bar Theory and by lacking underlying structure, RRG doesn't need to undergo the same theoretical gymnastics as do other syntactic formalisms.

TO DO

- Further understand RRG and its role in polysynthetic parsing.
- Work through how LFG is used in parsing and machine translation of polysynthetic languages like Aymara (Homola 2010, 2011, 2012).
- Write a splendiferous paper.

SOURCES

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