Topics in Computational Linguistics — Grammar Engineering —

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http://lingo.stanford.edu/courses/05/ge/
Our Grammars: Table of Contents

Type Description Language (TDL)
- `types.tdl` type definitions: hierarchy of grammatical knowledge;
- `lexicon.tdl` instances of (lexical) types plus orthography;
- `rules.tdl` instances of construction types; used by the parser;
- `lrules.tdl` lexical rules, applied before non-lexical rules;
- `irules.tdl` lexical rules that require orthographemic variation;
- `roots.tdl` grammar start symbol(s): ‘selection’ of final results.

Auxiliary Files (Grammar Configuration for LKB)
- `labels.tdl` TFS templates abbreviating node labels in trees;
- `globals.lsp, user-fns.lsp` parameters and interface functions;
- `mrsglobals.lsp` MRS parameters (path to semantics et al.)
Types vs. Named Feature Structures ('Instances')

`types.tdl`

verb-word := word &
  [ HEAD verb,
    SPR < phrase & [ HEAD noun,
      SPR < >,
      COMPS < > ] ] > ].

verb-word-3sing := verb-word &
  [ SPR < [ HEAD [ AGR 3sing ] ] > ].

`lexicon.tdl`

barks := verb-word-3sing &
  [ ORTH "barks" ].
Derivation trees are constructed from lexical items and grammar rules; node labels (up to now) are top-level types of underlying feature structure.
Decorating our Trees: Abbreviatory Node Labels

's-label'

s-label := label &
[ HEAD verb, SPR <> , COMPS <> ,
 LABEL-NAME "S" ].

vp-label := label &
[ HEAD verb, SPR < [] > , COMPS <> ,
 LABEL-NAME "VP" ].

v-label := label &
[ HEAD verb,
 LABEL-NAME "V" ].

np-label := label &
[ HEAD noun, SPR <> , COMPS <> ,
 LABEL-NAME "NP" ].