Dependency Grammars with NLTK

Natural Language Understanding Lab

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Objectives

- Understanding:
  - Dependency Relations and Grammars
  - Probabilistic Dependency Grammars
  - Projective and Non-Projective Parses
  - Transition-based Dependency Parsing
- Learning how to:
  - define dependency grammar in NLTK
  - identify a syntactic relation between Head and Dependent
  - parse with dependency grammar
  - evaluate dependency parser
  - use dependency parser of spacy and stanza

Outline

Recommended Reading

- Dan Jurafsky and James H. Martin. Speech and Language Processing (3rd ed. draft)
  - Chapter 14: Dependency Parsing
- Steven Bird, Ewan Klein, and Edward Loper. Natural Language Processing with Python
  - Chapter 8: Analyzing Sentence Structure
- Kubler, McDonald, and Nivre (2009) Dependency Parsing.