

Question 1: Linguistic Essentials

Exercise: 3.1

The/*Det* lemon/*Noun* is/*Verb* an/*Det* essential/*Adj* cooking/*Adj* ingredient/*Noun*. Its/*Pro* sharply/*Adv* fragrant/*Adj* juice/*Noun* and/*Con* tangy/*Adj* rind/*Noun* is/*Verb* added/*Verb* to/*Prep* sweet/*Adj* and/*Con* savory/*Adj* dishes/*Noun* in/*Prep* every/*Det* cuisine/*Noun*.

Note: The following abbreviations were used: *Det*: Determiner, *Adj*: Adjective, *Adv*: Adverb, *Pro*: Pronoun, *Con*: Conjunction, *Prep*: Preposition.

Exercise: 3.3

The subject is *He*, the direct object is *apple pie* and the indirect object is *her*.

Exercise: 3.4

In the first sentence, Mary is defending another person marked by the third person pronoun *her*, while in the second sentence Mary is defending *herself*, that is, she is defending Mary.

Exercise: 3.9

Although they can be identical tokens, particles are distinguished from prepositions because they form a collocation with the preceding verb which modifies the sense of the verb phrase it is part of. Prepositions are the head of a prepositional phrase, which can usually be removed without dramatically changing the semantics of the sentence.

- Preposition (*in London* is a prepositional phrase).
- Particle (*move in* is a semantic unit meaning to change residence).
- Particle (*puts in* is a semantic unit meaning spending time or energy).
- Preposition (*in the wrong folder* is a prepositional phrase).

Exercise: 3.12

- Mary saw the man *with the telescope*.

The prepositional phrase could attach to the verb *saw* (Mary saw the man through a telescope) or to the *the man* (Mary saw a man carrying a telescope).

- The company experienced growth in classified advertising *and preprinted inserts*.

The conjunction could attach to the noun phrase (*classified advertising* and *preprinted inserts*), in this case *preprinted* is an adjective much like *classified*. The conjunction could also attach to the verb phrase (*experienced growth* and *preprinted inserts*), this would imply *preprinted* is a verb, like *experienced*.

Question 2: Collocations

Introduction

Finding collocations is an important task in natural language processing (NLP). [1]

Program

Experiment

Results

Future Work

References

- [1] Steven Bird, Ewan Klein, and Edward Loper. *Natural Language Processing with Python*. O'Reilly Media, 1st edition, July 2009.