Basic Syntactic Structures of English

CSCI-GA.2590 – Lecture 2B

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• Goal of syntactic analysis: figure out who did what to whom

• Goal of this lecture: introduce terminology for discussing different syntactic structures
Parts of Speech

• Indicates the roles a word may play in a sentence
• Major parts of speech
  – noun, verb, adjective, adverb  [open classes]
  – pronoun, preposition, conjunction [closed classes]
• Simple tests for each part of speech
• The same word may have several parts of speech
  – common in English
Nouns

• can form plural and/or possessive
  – cat \(\rightarrow\) cats, cat’s

• *countable* nouns vs. *mass* nouns
  – singular countable nouns must appear with a determiner:
    • Cats sleep.
    • * Cat sleeps.
    • The cat sleeps.
Nouns

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Nouns

• can form plural and/or possessive
  – cat → cats, cat’s

• countable nouns vs. mass nouns
  – singular countable nouns must appear with a determiner:
    • Cats sleep.  mainly articles (“a”, “the”)
    • * Cat sleeps. and possessive pronouns (“my”, “his”)
    • The cat sleeps.
Verbs

• Most verbs can appear in “They must _____ (it).”

• Verbs can occur in different (inflected) forms:
  • base or infinitive ("be", "eat", "sleep")
  • present tense ("is", "am", "are"; "eats", "eat"; "sleeps", "sleep")
  • past tense ("was", "were"; "ate"; "slept")
  • present participle ("being", "eating"; "sleeping")
  • past participle ("been", "eaten"; "slept")
Adjectives

- Adjectives can appear in comparative or superlative forms:
  - happy → happier, happiest

- and with an intensifier:
  - happy → very happy
Adjectives vs. nouns

- we will not consider a word an adjective just because it appears as a modifier to the left of a noun:

  “the brick wall”

most nouns can appear in this position
Adverbs

• Can move within sentence:
  • He ate the brownie quickly.
  • He quickly ate the brownie.
  • Quickly, he ate the brownie.
Personal pronouns

• personal pronouns occur in nominative ("I", "he") and accusative ("me", "him")
  – last remaining evidence of case in English
Phrases

- phrases can be classified by head
  - part of speech of the main word
  - syntactic role in sentence

“The young cats drink milk.”

noun phrase  verb phrase
subject  predicate
Verb Complements

• Verbs must be followed by particular grammatical structures appropriate to the verb (the verb complement):

• noun phrase: I served a brownie. 
  adjective phrase: I remained very rich. 
  prepositional phrase: I looked at Fred. 
  particles: He looked up the number.

• some verbs can occur without any explicit complement (“I died.”) These are intransitive.
Prepositions vs Particles

• a particle can change places with the NP:
  He looked up the number.
  He looked the number up.

• a preposition must precede the NP:
  He walked into the room.
  * He walked the room into.
• Why do we care about distinguishing prepositions from particles?
Prepositions vs. particles

• The two constructs may have very different meanings

• This is evident in ambiguous examples
  • He looked up the street
Clausal complements

• The complement of a verb can itself be a complete sentence:
  “I dreamt that I won a million brownies.”
Adjuncts vs. complements

• A verbal modifier (“adjunct”) can be deleted without changing the basic meaning of a sentence:
  – He treated her in his office.

• Deleting a complement generally changes the basic meaning:
  – He treated her as an equal.
Adjuncts vs. complements

• adjuncts and complements may also have different readings:

  • He seemed to please his teacher

  • He appeared to please his teacher

  • He disappeared to please his teacher
Adjuncts vs. complements

• adjuncts and complements may also have different readings:

  • He seemed to please his teacher  [complement]

  • He appeared to please his teacher  [ambiguous]

  • He disappeared to please his teacher  [adjunct]
Noun phrase structure

• A noun may be modified on the left by:
  – determiner quantifier adjective noun
    “the five shiny tin cans”

• and on the right by
  – prepositional phrases
    the man in the moon
  – apposition
    Scott, the Arctic explorer,
  – and relative clauses
Relative Clauses

• A relative clause is like a sentence with a missing NP:

  the man who ate the popcorn

  the popcorn which the man ate
Relative Clauses

- The gap can be filled in with the head of the larger NP:

  the man such that [the man] ate the popcorn

  the popcorn such that the man ate [the popcorn]
Reduced Relatives

• A relative clause with a form of “be” can be further shortened:

  a man such that the man is eating a brownie

  →

  a man who is eating a brownie

  →

  a man eating a brownie
Conjunctions

Co–ordinate conjunctions (and, or) are unusual in that they combine with several different parts of speech:

– noun: I like ham and cheese.
– verb: I prepared and ate the sandwich.
– adjective: It is hot and humid.
– adverb: He approached quickly and quietly.
English vs. other languages

Problems we avoid by focus on English:

• text segmented into words
  • need segmentation stage for Japanese, Chinese

• limited morphology
  • can enter all word forms in dictionary
  • inflectional morphology relatively simple
    – verb tenses, singular / plural
  • some derivational morphology
    – nominalization (destroy $\rightarrow$ destruction)

• relatively fixed word order
  • freer word order in languages with case marking