

Parts of Speech

Gerald Penn

CSC 401
University of Toronto

<http://www.cs.toronto.edu/~gpenn/csc401>

Parts of Speech (POSs)

Part of speech is a formal property of word-types that determines their acceptable uses in syntax

Parts of speech (*syntactic categories*) can be regarded as classes of words. Examples:

- nouns
- verbs
- adjectives
- adverbs

POS does *not* define how a word participates in the semantic interpretation of a sentence (although not entirely independent).

A word-type can have more than one POS, but a word-token has exactly one, e.g.:

I can_{Aux} kick the can_N.

Parts of Speech

Content categories

- large classes
- new (*neologisms*) and archaic/extinct words
- semantically rich and independent
- examples: nouns, verbs, adjectives

Function(al) categories

- small classes
- conservative — few words lost or gained over time
- semantically dependent on content words
- examples: determiners, prepositions, conjunctions

Nouns

Nouns refer to *varieties*: entities and concepts in the world

Examples: cat, hat, Fred, life, philosophy, him

Properties:

- case (language specific)
- person
- number (language specific)
- gender (language specific)
 - grammatical gender and/or
 - natural gender

Nouns

Nouns refer to *varieties*: entities and concepts in the world

Examples: cat, hat, Fred, life, philosophy, him

Properties:

- case (language specific)
 - nominative
 - genitive/possessive
 - accusative/objective
 - vestiges of others, e.g., *-ward*
 - pronominal clitic forms
- person
- number (language specific)
- gender (language specific)

Nouns

Nouns refer to *varieties*: entities and concepts in the world

Examples: cat, hat, Fred, life, philosophy, him

Properties:

- case (language specific)
- person
 - first: speaker/author
 - * inclusive (of hearer/reader)
 - * exclusive
 - second: hearer/reader
 - third: everyone else
- number (language specific)
- gender (language specific)

Nouns

Nouns refer to *varieties*: entities and concepts in the world

Examples: cat, hat, Fred, life, philosophy, him

Properties:

- case (language specific)
- person
- number (language specific)
 - singular: one (or less)
 - plural: two/three or more
 - dual: exactly two
- gender (language specific)

Nouns

Nouns refer to *varieties*: entities and concepts in the world

Examples: cat, hat, Fred, life, philosophy, him

Properties:

- case (language specific)
- person
- number (language specific)
- gender (language specific)

Verbs agree with their *subjects* in person, number (and gender)

In the English present tense, only third-singular is overtly inflected

Nouns

Nouns refer to *varieties*: entities and concepts in the world

Examples: cat, hat, Fred, life, philosophy, him

Other distinctions

- proper vs. common noun
- pronouns: like proper nouns, but with *anaphoric reference*
 - discourse
 - reflexive
 - reciprocal
- mass vs. count noun

Nouns

Nouns refer to *varieties*: entities and concepts in the world

Examples: cat, hat, Fred, life, philosophy, him

Nouns bear *grammatical functions*:

- subject: *John* gave Mary the book
- (direct) object: John gave Mary *the book*
- indirect object: John gave *Mary* the book
- object of preposition: John gave the book to *Mary*

and *thematic roles*: agent, patient, theme, location in, location to, instrument, recipient, beneficiary, . . .

Mapping Grammatical Function to Case

This is language-specific, but in languages like English:

Gram. Fn.	Subject	Direct Object	Indirect Object	(Oblique)
Case	Nominative	Accusative	Dative	Preposition + Case

... and this is just for *verbal* grammatical functions. Some nouns can have arguments with grammatical functions, for which the genitive case is generally used, e.g., *the ship's destruction*, *the student's thought*, *the boy's search*.

Adjectives

Adjectives qualify or describe varieties

Examples: good, tall, red, thorough, clever, former

Properties:

- case (agrees with noun)
- number (agrees with noun)
- gender (agrees with noun)
- degree
 - positive: *happy*
 - comparative: *happier*
 - superlative: *happiest*

Adjectives

Adjectives qualify or describe varieties

Examples: good, tall, red, thorough, clever, former

Other distinctions:

- colour, size, ...
 - *big red* vs. *red big*
- intensionality
 - *former*, *alleged*
- attributive vs. predicative
 - *mine*, (arch.) *thine*
 - *ours*, *yours*, *theirs*

Prepositions

“anywhere a mouse can go:”

- *over, under, in, out, ...*

but also:

- *by*

- alongside: a cottage *by* the lake
- agentive: ... given to Mary *by* John

- *for*

- benefactive: a newspaper *for* your father
- purpose: reserve a room *for* a lecture

- *of*

- possessive: office *of* a professor
- partitive: leg *of* a table
- measure: three cups *of* sugar
- appositive: the province *of* Ontario
- objective: destruction *of* the aircraft

Prepositions

“anywhere a mouse can go:”

- *over, under, in, out, ...*

but also:

- *with*
 - sociative: watch a film *with* a friend
 - instrumental: hit a nail *with* a hammer
- others ...

Most of the exceptions are uses of prepositions where other languages would use case.

Determiners

Semantically, these are quantifiers (as in logic)

Syntactically, they are the leftmost modifiers of nouns in a *noun phrase*

Kinds:

- articles: *a, the*
- quantificational: *every, some, most*
- demonstrative: *this, that*
- numerical: *one, two, three*

Determiners typically agree in case, number, and gender with their nouns (like adjectives).

Verbs

Verbs *predicate* events or states of being

Properties:

- person (agrees with subject)
- number (agrees with subject)
- often gender (agrees with subject)
- tense: present, past, future, ...
- aspect: durative, iterative, progressive
- voice: active, passive, (middle)
- mood
 - infinitive: *to go*
 - indicative: *he goes/went*
 - imperative: *(you) go!*
 - interrogative: *Did he go?*
 - subjunctive: *if he were to go ...*
 - optative: *... then she would go too*

Mapping Thematic Role to Grammatical Function

This is language-specific as well as verb-specific, but there are systematic alternations that are captured by voice:

Active voice, e.g., *John threw the ball to Mary*:

Them. Role	Agent	Theme/Patient	Beneficiary
Gram. Fn.	Subject	Direct Object	Indirect Object
Case	Nominative	Accusative	Dative/to+Accusative

Passive voice, e.g., *The ball was thrown by John to Mary*:

Them. Role	Theme/Patient	Beneficiary	Agent
Gram. Fn.	Subject	Indirect Object	Obj. of Prep.
Case	Nominative	Dative/to + Accusative	Instrumental/by+Acc.

Verbs

Other distinctions

- transitive vs. intransitive
- auxiliaries and modals
- stative: *become, feel*
- copular: *be*

Adverbs

Modify verbs, adjectives, and other adverbs:

- run *quickly*
- *very* happy, *much* more
- *very* quickly, *very* much

Adverbs indicate:

- time: *soon, now, yesterday, ...*
- place: *here, far, ...*
- manner: *quickly, angrily, ...*
- degree: *very, much*