

# CAS LX 522

## Syntax I

# 3

Morphosyntactic features, part II  
(2.4.2-)

## Categories: Lexical vs. functional

- Nouns, verbs, adjectives, adverbs: These are *lexical* categories. They carry significant and arbitrary meaning, and they are *open-class* (new ones can be invented).
- But not all words are of this kind (except maybe those on telegrams).<sup>†</sup>

<sup>†</sup>Telegram (n.): An ancient form of texting.

## Functional categories/ syntactic “glue”

- Sentences are held together by little “function words” as well. These are *functional* categories.

1) I expect that the CEO will want to retire.

- Determiners: *the, a(n), some, every, that, ...*
- Pronouns: *you, him, they, my, your, ...*
- Infinitival to: *to*
- Auxiliaries/modals: *have, be, do, can, should, ...*
- Complementizers: *that, for, if, ...*

## Determiners

- Determiners generally come before a noun, and come in a few different types. There are differences between the types, though for now we’ll lump them together. Category: [D].
- Articles: *the, an*
- Quantificational determiners: *some, most*
- Interrogative determiner: *which*
- Demonstratives: *that, this*
- Possessive pronouns: *my, your, their*

## “Pre-noun things” vs. determiners, adjectives

- Can we lump determiners together with adjectives?
  - They both come before nouns.
  - They both seem to “modify” the noun.
  - If we didn’t need both categories (if they don’t matter for syntax/distribution), we’d have a simpler theory putting them together.
- *Tall building, that building, a building, my building.*

## Determiners vs. adjectives

- |  |  |
|--|--|
| 1) The big fluffy pink rabbit  | To properly describe the distribution of these elements, we really need to separate them into two classes. Lumping them together will not give us a simpler descriptive systems. |
| 2) *The my rabbit  |  |
| 3) *The that rabbit  |  |
| 4) *Every my rabbit  |  |
| • Determiners cannot co-occur with other determiners, must precede any adjectives. |  |
| • Adjectives can occur with other adjectives.                                      |  |

## Pronouns

- Pronouns differ from nouns in a couple of ways (example: case marking), and should be considered a *functional* category.
- The pronouns of English express *person*, *number*, and *gender*.
  - 1st person: *I, me, we, us*
  - 2nd person: *you*
  - 3rd person: *he, she, him, her, they, them, it*.

## Pronouns are Ds.

- We'll come back to this again later on, but we will treat pronouns as having category [D], like, say, *the* or *which*.
- 1) We linguists must stick together.

## Auxiliaries and modals

- Different from verbs: *have, be, do, will, can, might, must, should, could, would, ...*
- In questions, auxiliaries “invert” with the subject, verbs don't.
  - *Will you leave? Can you leave?*  
*Do you leave often?*  
*\*Leave you often?*

## Auxiliaries and modals

- Auxiliaries occur before *not*, verbs don't
  - *You will not leave. You did not leave.*  
*\*You left not.*
- Notice the extra *do*— “do-support”
- Auxiliaries are responsible for things like tense, mood, modality, aspect, voice.
- We abbreviate their category as [T] (“tense”).

## Infinitival to

- 1) I like to go to the movies.
- Kind of looks like a preposition, but it's not. Prepositions take nouns, *to* as a P has a kind of contentful meaning (endpoint of a path). Infinitival *to* takes (bare) verbs only, means nothing (apart from “untensed”).
  - It might be more like a modal: *To* and modals (*can, might, should*) seem to appear in the same place (between the subject and a bare verb form).

## Infinitival to

- 1) I like that John can pick up his own dry-cleaning.
- 2) I'd like for John to pick up his own dry-cleaning.

## Complementizers

- 1) Pat will leave.
  - 2) I heard that Pat will leave.
  - 3) I wonder if Pat will leave.
  - 4) I am anxious for Pat to leave.
- It is perfectly possible to *embed* a sentence inside another one. When we do this, it is indicated with a *complementizer* (introducing a *complement clause*). Category: [C].

## The P for v. the C for

- *For* is of course a preposition (*I looked for you for three hours*), but not when it is introducing clauses.
- He headed right for the back row.
- \*He'd like right for the class to be over.
- \*He expressed interest in the class to be over.
- Who would you vote for in the election?
- \*Who are you anxious for to win the election?

## The D that v. the C that

- Same kind of thing holds for *that*.
  - 1) I liked that movie.
  - 2) I heard that movie involved guinea pigs.
- Sometimes you can replace *for* clauses with *that* clauses.
  - 1) It is important that Pat votes.
  - 2) It is important for Pat to vote.

## Regrouping

- Lexical categories:
  - N: noun, V: verb,  
A: adjective, P: preposition
- We started a feature decomposition of these by proposing that they are labels for feature bundles like  $[\pm N, \pm V]$ , which can characterize certain natural classes across categories.

## Regrouping

- But there are many more than four categories.
- Aux: auxiliary, C: complementizer, Adv: adverb, D: determiner, PRN: pronoun, T: modals?, ...
- So, we would need more features to make all of the distinctions. We won't pursue that, however—we'll just use the labels like N, V, A, P, D, T, C, etc.)

## Lexical items

- Recall that part of our language knowledge is the knowledge of the lexicon.
- The lexicon is a list of the “words”
- More accurately, it is a list of the things sentences are made of.
- It is traditionally considered to be where “unpredictable” information is stored. The sound, the meaning, the grammatical category, and other features.

## Features of lexical items

- A lexical item is a bundle of properties. It is a meaning, linked with instructions for pronunciation, linked with syntactic properties like category.
- We represent these properties as *features*.

## Features of lexical items

- Any given lexical item has:
  - a. Semantic features
  - b. Phonological features
  - c. Syntactic features
- When it comes to syntax, syntactic features certainly matter. But no language seems to arrange its sentences such that words that start with *t* are first.
- Hypothesis: Syntax can only “see” syntactic features.

## English pronouns

- The English pronouns make several distinctions over and above a singular/plural distinction.
- One distinction is *person*, which is sensitive to who is talking and to whom.
- English (and most languages) distinguish three persons.

	singular	plural
first person	I	we
second person	you	you
third person	he/she/it	they

## English pronouns

- We could model person with [1], [2], and [3]—except that that predicts eight distinctions, and we have only three.

	singular	plural
first person [1]	I	we
second person [2]	you	you
third person [3]	he/she/it	they

## English pronouns

- Rather, we want to use two features, which only predict four. Slightly better.
- By eliminating [3], we predict a system like that below—as well as a [1,2] combination that is not morphologically distinguished in English.

	singular	plural
first person [1]	I	we
second person [2]	you	you
third person [3]	he/she/it	they

## English pronouns

- What about [1,2]? There’s no special pronoun form, but what would it *mean*?
- Well, [1] is the speaker, [2] is the person being spoken to. So [1,2,pl] would be *we* (including you). Not the same as [1,pl], *we* (excluding you).

	singular	plural
first person [1]	I	we
second person [2]	you	you
third person	he/she/it	they

## English pronouns

- Some languages distinguish inclusive and exclusive we morphologically, e.g., Dakota.
- No languages seem to distinguish 8 persons.

	singular	plural
first person [1]	I	we
second person [2]	you	you
third person	he/she/it	they

## Gender

- Many languages distinguish nouns on the basis of “gender” as well.
- English: *she/he/it* (3rd person pronouns)
- Gender often comes in 2-3 flavors (masculine, feminine, neuter) which often corresponds roughly to biological gender where applicable.

## Phi-features ( $\phi$ -features)

- Collectively, person, number, and gender features are referred to as  $\phi$ -features.
- These are the features that are generally involved in subject-verb agreement.
- We group them together because they seem to have their effects together (that is, not separately).

## Case features

- English pronouns change form also depending on where they are in the sentence.  
I) He left. I saw him. He saw me.
- The information about syntactic position is encoded by case features.
  - ▶ In English, case is only visible on pronouns.
  - ▶ In many other languages, case is visible on all nouns (and sometimes on words modifying nouns, like adjectives or determiners).

## Case names

- In English, we distinguish nominative (on subjects), genitive (on possessors), and accusative (elsewhere)

Singular			Plural		
Nom	Acc	Gen	Nom	Acc	Gen
I	me	my	we	us	our
you	you	your	you	you	your
he	him	his	they	them	their
she	her	her	they	them	their
it	it	its	they	them	their

## Features & pronunciation

- Lexical items are bundles of features. Like [Acc, I, sg, PRN].
- At the A-P interface [Acc, I, sg, PRN] is interpreted as “me”
- The syntactic system arranges these lexical items into sentences, and then hands the result off to the A-P and C-I systems (at the interfaces)

Singular			Plural		
Nom	Acc	Gen	Nom	Acc	Gen
I	me	my	we	us	our
you	you	your	you	you	your
he	him	his	they	them	their
she	her	her	they	them	their
it	it	its	they	them	their

## Features & pronunciation

- Not every distinction: *The structure of the paradigm can give us clues as to how the interface rules work.*
- ▶ Only 3rd person singular distinguishes gender.
- ▶ 2nd person does not distinguish number or between Nom and Acc.
- ▶ 3rd person singular feminine doesn't distinguish between Acc and Gen.

Singular			Plural		
Nom	Acc	Gen	Nom	Acc	Gen
I	me	my	we	us	our
you	you	your	you	you	your
he	him	his	they	them	their
she	her	her	they	them	their
it	it	its	they	them	their

## Verbal features

- Some features are specific to verbs.
- [past], for example, differentiating *write* from *wrote*, *kick* from *kicked*. This is a *tense* feature.
- Some languages have a special form of the verb for the future as well; [future].

## Verbal features

- We can characterize present tense as being non-past, non-future.
- In English, future is expressed in other ways, with a modal (*will*) or with the verb *go*. English does not seem to make use of the [future] feature; in English there is just past and non-past.
- Cf. duals and the use of [sg] on nouns.

## Participles

- English verbs can also take on a *participle* form: *writing*, *written*.
- Not tense, but *aspect*.
  - ▶ The *-ing* form (“present participle”) comes after *be*, indicating a continuing event.
  - ▶ The *-en* form (“past participle”) comes after *have*, indicating a completed event.
- Tense can still be expressed—on the auxiliary: *I have written*, *I had written*, *I am writing*, *I was writing*.

## Participles

- Adger's proposal:
  - ▶ Present participle: [V, part] (*writing*)
  - ▶ Past participle: [V, part, past] (*written*)
- I distance myself from that because it is not at all clear that the [past] feature in Adger's past participle has anything in common with the [past] feature in an actual past tense. A better name would be, e.g., [perf].

## Bare verb/infinitive

- 1) I want to win the lottery.
- The bare form of the verb (often appearing after *to*) is the *infinitive*.
- We will assign infinitive forms the feature [Inf].
- The fact that the infinitive is a bare verb (no suffixes or other inflection) in English may be something of a coincidence. Other languages mark the infinitive with a special verb form, on a par with participles or tensed verbs.

## Verb agreement

- Verbs very often (across languages) agree with the subject in  $\phi$ -features as well.
- 1) I eat bagels.
  - 2) He eats bagels.
  - 3) They eat bagels.
- However, *eat* isn't really "plural" in any sense. Plurality is a property of the subject, but it is *reflected* in the morphology of the verb.

## Verb agreement

- In English, only *finite* verbs show agreement (those that are not infinitives or participles).
- In fact, only *present tense* verbs do, with the single exception of the *copula* (*be*).
- In other languages, agreement sometimes appears on other forms. Participles, for example, sometimes agree with their object. Infinitives very rarely agree with anything.

## Summary:

- Categories: N, V, Adv, A, P, D, T, Aux, C
- Nominal features: case ([nom],[acc],[gen]),  $\phi$ -features: person ([1],[2]), number ([pl]), gender ([fem])
- Verbal features: tense ([inf],[past]), aspect ([part],[perf])