### Features and categories

Introduction to Syntax, EGG Summer School 2017

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#### Overview

Pre-Introduction: Admin

What is syntax?

Categories and features

Conclusions

Pre-Introduction: Admin

#### About this course

Five lectures with me (András) in week 1, five with Sandhya in week 2

- Syllabus available on: http://www.eggschool.org/teachers-classes/ intro-courses/introduction-to-syntax/
- · Slides available on: http://andras.barany.at/egg2017/
- Time: 11:30-12:45
- · Literature:
  - · David Adger. 2003. Core syntax. Oxford: Oxford University Press
  - Olaf Koeneman & Hedde Zeijlstra. 2017. Introducing syntax. Cambridge: Cambridge University Press
- Any questions?

What is syntax?

#### What is syntax?

Studying syntax means studying the structures of sentences

- e.g. the properties of the English declarative sentences in (1) vs. (2) ...
- (1) Olomouc is beautiful.
- (2) \* Is beautiful Olomouc.
  - $\cdot$  ... or the English interrogative sentences in (3) vs. (4)
- (3) Does Mary like him?
- (4) \* Does Mary like he?

## Grammaticality

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- (5) a. Olomouc is beautiful.
  - b. \*Is beautiful Olomouc.
  - (5a,b) use the same words but one of them has "bad" syntax
  - ▶ We say that (5a) is grammatical ...
  - ... and (5b) is ungrammatical.

# Acceptability

- ? What's wrong with (6b)?
- (6) a. Milena is singing.
  - b.?Olomouc is singing.

## Acceptability

- ? What's wrong with (6b)?
- (6) a. Milena is singing.
  - b.?Olomouc is singing.

- (6a,b) have the same structure but one of them is "odd"
- ▶ We say that (6a) is acceptable ...
- ... and (6b) is odd (but still grammatical).

#### What determines grammaticality?

What property of sentences determines whether they are grammatical?

· Is it about words?

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- (7) \*Is beautiful/old/small/large/... Olomouc.

- ▶ No adjective in (7) makes the sentence grammatical
- ▶ Something else is wrong with (7)
- (8) Olomouc is beautiful/old/small/large/....
  - ▶ (8) is grammatical with any adjective.
  - ▶ The structure of (8), not the choice of words, makes it grammatical.

### Words and categories

We can also change the **subject** of (8), not just the **predicate**:

- (9) Olomouc/Jiři's birthplace/that tree/... is beautiful/... . How can we abstract away from words?
  - ▶ We refer to categories!

In English, a declarative sentence of the form (10) will generally be grammatical:

- (10) [3rd person sg noun (phrase)] is [adjective]
  - ▶ Rather than listing sentences, grammars allow abstract structures

#### Words and categories II

- (11) a. [N Olomouc] is [A beautiful].
  - b. [N Olomouc] is [A small].
  - c. [N] That tree [N] is [N] big [N].
  - d. [N Jiři's birthplace ] is [A old ].
  - e. ...

Koeneman & Zeijlstra's (2017: 9) first central insight:



Syntax cares not about individual words but rather about kinds of words. The linguistic term for 'kind of word' is category.

Categories and features

## Identifying categories

How do we figure out what category a word belongs to?

- · By looking at the word's form?
- · Or its meaning?
- · Or something else?
- (12) a. Everybody was dancing well.
  - b. John's dancing was the best.

(Koeneman & Zeijlstra 2017: 11)

**?** How do the two instances of *dancing* in (12) differ from each other?

### Identifying categories II

- ▶ We can use syntax to test the distribution of different categories
- (13) a. Everybody was singing well.
  - b. Everybody sings well.
  - c. \*Everybody story well.
- (14) a. John's singing was the best.
  - b. John's funny story/singing was the best.
  - c. \*John's funny sings was the best.
  - ▶ Different categories have different properties
  - **?** Give some more examples!

## Categories: interim summary

So far, we have seen three categories, nouns, verbs and adjectives

- · nouns can be subjects, and appear in possessive constructions
- verbs can be modified by adverbs, and have tenses
- · adjectives can ...?
- ▶ We can substitute elements of one category for each other

## Are categories all we need?

Our rule in (10) refers to more than categories...

(10) [3rd person sg noun (phrase)] is [adjective]

Why is that? Why can't we just use something like (15)?

(15)  $[N \ N] is [A \ A]$ 

What kinds of sentences would (15) allow?

#### Categories and features

We can think of categories as features of lexical items ("words")

- · Milena has an N feature, sing has a V feature, etc.
- · these are called categorial features
- ▲ but categorial features are not enough!

What about the following examples?

- (16) a. [N Olomouc] is [A beautiful].
  - b. [N Czech towns ] are [A beautiful ].

Are is and are different categories? Are they the same?

? How can we describe is vs. are?

#### Features and sub-features

There are different classes of features:

- · categorial features: N, V, A, ...
- · ф-features: person, number, gender
- ? Can you think of others?

Sometimes categories must match in their (sub-)features:

- (17) a. [N: 3SG Olomouc][V: 3SG is][A beautiful].
  - b. [N: 3PL Czech towns ][V: 3PL are ][A beautiful ].
  - ? Can you think of differences in other languages?

# Sub-types of categories

Now we know that categories need to match in their features, too. Is that enough?

- (18) a.  $[N: 3SG \land Car][V: 3SG is] red.$ 
  - b. [N: 3PL] The cars [V: 3PL] are [V: 3PL] are [V: 3PL]
  - c. [N: 3PL Cars][V: 3PL are] red.
  - d.\*[N: 3SG Car][V: 3SG is] red.
  - e. [N: 3SG Blood] [V: 3SG is] red.
  - ? What's wrong with (18d)?
  - ? What's the difference between (18d) and (18e)?

### Types of N

#### car is a count noun, and blood is a mass noun

- · both are nouns, but their distribution is slightly different
- ? How can we analyse their similarities and differences?
- ▶ What if *a* and *the* have silent variants in (18b) and (18c)?
- (19) a. [? A car] is red.
  - b. [2 cars ] are red.
  - c. [? blood] is red.
  - d. [? The car/cars/blood] is/are red.

## Types of N

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- ▶ What if *a* and *the* have silent variants in (18b) and (18c)?
- (19) a. [ A car ] is red.
  - b.  $[ \emptyset$  cars ] are red.
  - c. [Øblood] is red.
  - d. [The car/cars/blood] is/are red.

## Types of N

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- ? How can we analyse their similarities and differences?
- ▶ What if a and the have silent variants in (18b) and (18c)?
- (19) a.  $[D \land car]$  is red.
  - b.  $[D \otimes cars]$  are red.
  - c.  $[D \emptyset blood]$  is red.
  - d. [D The car/cars/blood] is/are red.
  - ▶ The subject is category D, different nouns are different types of N
  - ? Can you think of yet another type of N/D?

#### Features of V

We have already seen a type of feature that is relevant for verbs: φ-features

	SG	PL
1	táncol <b>ok</b>	táncol <b>unk</b>
2	táncol <b>sz</b>	táncol <b>tok</b>
3	táncol	táncol <b>nak</b>

	SG	PL
1	dance	dance
2	dance	dance
3	dance <b>s</b>	dance

**Table 1** Forms of Hungarian *táncol* 'dance'

 Table 2
 Forms of English dance

- · A set of such forms makes up a paradigm
- **?** What other verbal features can you think of?

## Conclusions

#### Conclusions

- · Syntax cares for categories, not single words
- · Categories can be identified by their distribution
- · Generally, one member of a category can be substituted for another
- · We can think of categories as a type of feature
- · There are other features, like φ-features, tense features, ...



Tomorrow we will look at how syntax puts objects together to form larger structures!

**Abbreviations**: 1=first person, 2 = second person, 3 = third person, PL = plural, SG = singular.

#### References I

Adger, David. 2003. Core syntax. Oxford: Oxford University Press.Koeneman, Olaf & Hedde Zeijlstra. 2017. Introducing syntax. Cambridge: Cambridge University Press.