## Syntax

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## Recap

The complementizer

## Aspect

The structure of words

## Ambiguity

(1) black cab drivers

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(1) black cab drivers
a. drivers of black cabs

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(1) black cab drivers
a. drivers of black cabs
b. cab drivers who are black

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- The discovery of structure


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(1) black cab drivers
a. drivers of black cabs
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- The discovery of structure
- How can we find out more about it?


## Constituency tests

(2) Constituents can be
a. replaced by a pronoun
b. moved around
c. provided as an answer to a question
d. co-ordinated
e. elided
(3) a. The customer in the corner will order the drinks before the meal.
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b. I wouldn't be so sure that he will -
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b. I wouldn't be so sure that he will -

(4) Binary composition hypothesis

All syntactic structure is (at most) binary.
(5) [v order] + [ N milk]
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a. order milk
(5) [v order] + [ N milk]
a. order milk
b. will + [order milk]
(5) [v order] + [ N milk]
a. order milk
b. will + [order milk]
c. will + [vp order milk ]
(5) [v order] + [ N milk]
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b. will + [order milk]
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(6) The head
a. determines the type of meaning that the mother node has
(5) [v order] + [ N milk]
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c. determines the form of the sister node
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(7) a. VP $\rightarrow$ describe an event
b. $\quad$ PP $\rightarrow$ anchor it in time with respect to the speech time



(8) notions
a. complement = the sister of the head
b. adjunct = optional modifier
c. $\quad$ specifier $=$ obligatory modifier
(9) a. before the meal
(9) a. before the meal
b. before that
(9) a. before the meal
b. before that
c.


## Recap

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(10) a. I think that he smokes.

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(10) a. I think that he smokes.
b. I wonder whether he smokes.

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c. say whether the anchored event is ...
(i) a fact (declarative)


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(11) a. describe an event
b. anchor it in time
c. say whether the anchored event is ...
(i) a fact (declarative)
(ii) a condition for something else (conditional)
(iii) something you wonder about the truth of (interrogative)
(iv) something you want to see done (desiderative, ...)
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## Recap

## The complementizer

## Aspect

The structure of words
(12) Simple vs. progressive a. He will read the book.
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a. He will read the book.
b. He will be reading the book.
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(13) a. the whole event will take place in the future (přečte)
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- Aspect for verbs is similar to count vs. mass for nouns (cumulativity)
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- Both boil down to the notion of boundedness
(14) Cumulativity
a. On Monday, he bought rice.
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a. On Monday, he bought rice.
b. On Tuesday, he bought rice.
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(14) Cumulativity
a. On Monday, he bought rice.
b. On Tuesday, he bought rice.
c. So now, he has rice.
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(14) Cumulativity
a. On Monday, he bought rice.
b. On Tuesday, he bought rice.
c. So now, he has rice.
(15) non-cumulativity
a. On Monday, he bought a chair.
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b. On Tuesday, he bought rice.
c. So now, he has rice.
(15) non-cumulativity
a. On Monday, he bought a chair.
b. On Tuesday, he bought a chair.
c. $\neq$ So now, he has a chair.
d. He has two chairs
(16) Cumulativity
a. On Monday, he was reading a book.
(16) Cumulativity
a. On Monday, he was reading a book.
b. On Tuesday, he was reading a book.
(16) Cumulativity
a. On Monday, he was reading a book.
b. On Tuesday, he was reading a book.
c. ...
d. So the whole week, he was reading this book.
(16) Cumulativity
a. On Monday, he was reading a book.
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c. ...
d. So the whole week, he was reading this book.
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a. On Monday, he read a book.
b. On Tuesday, he read a book.
c. ...
d. $\neq$ So in the course of the week, he read this book.
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c. ...
d. $\neq$ So in the course of the week, he read this book.
e. He read seven books
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a. On Monday, he was reading a book.
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e. He read seven books
- the progressive lacks a boundary where one event stops and another one begins (just like mass nouns)



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The structure of words

## Czech

(18) a. objedn -at order -INF
'to order'

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(18) a. objedn -at order -INF
'to order'
b. objedn -áv -at
order -PROG -INF
'to be ordering'

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(18) a. objedn -at order -INF 'to order'
b. objedn -áv -at
order -PROG -INF
'to be ordering'
c. objedn -áv -á -š
order -PROG -PRES -2.SG
'you are ordering'

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'you are ordering'
d. objedn -áv -á -m
order -PROG -PRES -1.SG
'I am ordering'

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order -PROG -PRES-1.SG
'I am ordering'
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order - -PRES -1.SG
'I will order'

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a. objedn -at order -INF 'to order'
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order -PROG -PRES -2.SG
'you are ordering'
d. objedn -áv -á -m
order -PROG -PRES-1.SG
'I am ordering'
e. objedn - -á -m
order - -PRES-1.SG
'I will order'
f. objedn -áv -á -š -li
order -PROG -PRES -2.SG -COND
'if you are ordering'

## Czech

(19) objedn -áv -á -š -li order -PROG -PRES -2.SG -COND 'if you are ordering'
(20) Czech order event > asp > tense > subject > mood

## Czech vs. English

(21) Czech order
event > asp > tense > subject > mood

## Czech vs. English

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event > asp > tense > subject > mood
(22) English order:
that you will be ordering the drinks
mood > subject > tense > aspect > event

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- we can see that if we switch the "precede" sign > by a "follow" sign < in one of the languages.


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(23) a. English: mood $>$ subject $>$ tense $>$ aspect $>$ event
b. Czech: mood < subject < tense < aspect < event


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(23) a. English: mood > subject > tense > aspect > event
b. Czech: mood < subject < tense < aspect < event
- The order in (23a) reads 'mood precedes the subject' while the order (23b) reads 'mood follows the subject.'


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b. Czech: mood < subject < tense < aspect < event
- The order in (23a) reads 'mood precedes the subject' while the order (23b) reads 'mood follows the subject.'
- They are 'the same' order, but they go in different directions
- An important generalization about languages is (24). (It has exceptions.)
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(24) The Mirror Principle The order of morphemes inside words is the mirror image of the order of words in syntax
- The following two trees bring out the 'mirror image' nature of the two systems. If we draw a vertical line in between the two trees, the line will serve as a symmetry axis.


