

Linguistics 101

Theoretical Syntax

# Theoretical Syntax

- When constructing sentences, our brains do a lot of work ‘behind the scenes’.
- Syntactic theories attempt to discover these hidden processes.
- While languages differ a lot on the surface, they are very similar in what goes on ‘behind the scenes’.
- The following slides will introduce the type of work done in theoretical syntax.

# Theoretical Syntax

- Recall: English has:
  - VP (verb phrase) with a V head.
  - PP (prepositional phrase) with a P head.
  - NP (noun phrase) with a N head.
  - CP (complementizer phrase) with a C head.
- I will show that English also has TP (tense phrase) with a T head.
- I will also show that morphemes can 'move' from one position to another.

# Tense

- Tense is sometimes shown on the main verb.
  - I walk, he walks (present)
  - I walked (past)

# Tense

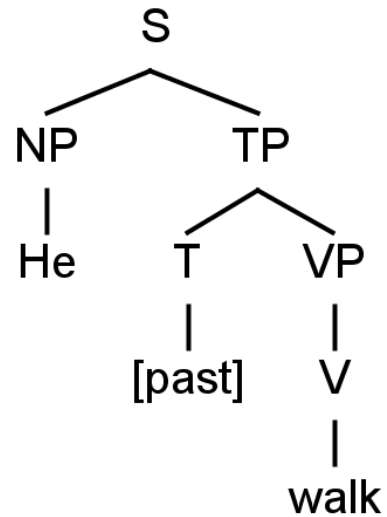
- Tense is sometimes shown as a separate word.
  - I **will** walk (future)
  - I **don't** walk (present with negation)
  - I **didn't** walk (past with negation)
  - I **do** walk (present with emphasis)
  - I **did** walk (past with emphasis)
  - I **am** walking (present progressive)
  - I **was** walking (past progressive)
  - **Did** you walk (past question)
  - **Do** you walk (present question)

# Tense

- In many languages, 'tense' is always in the same position.
- Could English 'tense' also always be in the same position?

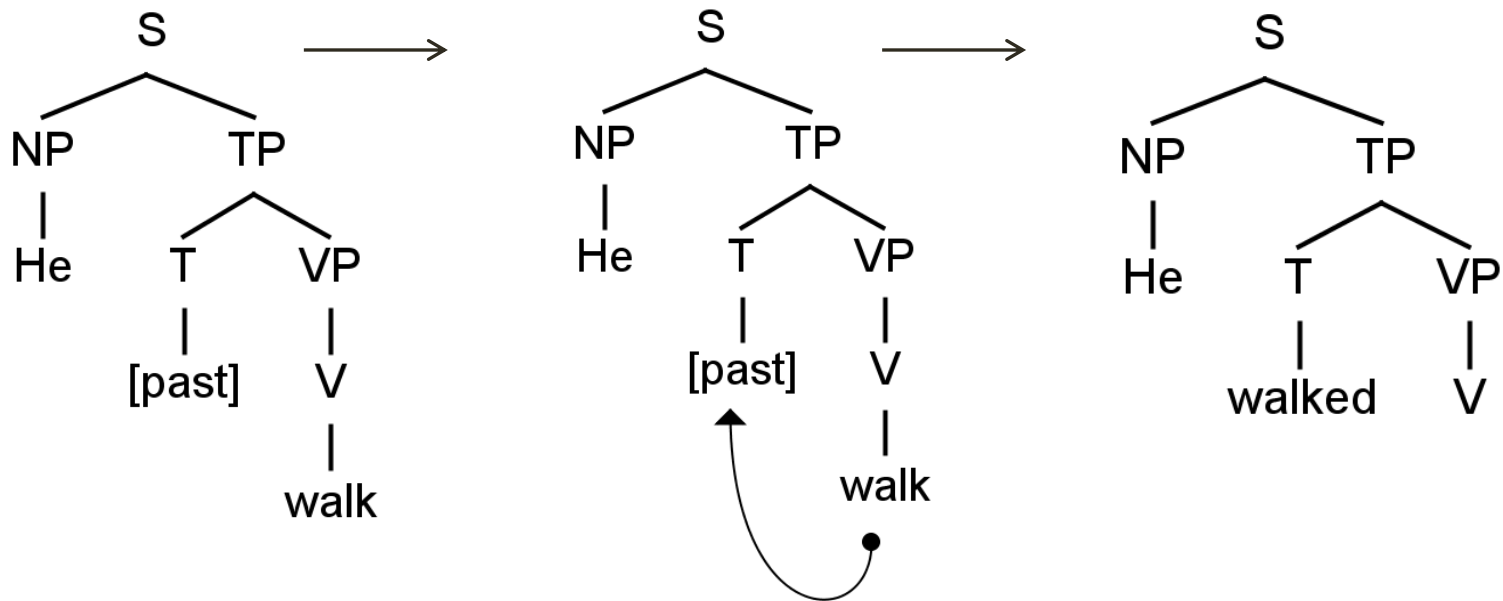
# Tense Phrase

'He walked.'



# Tense Phrase

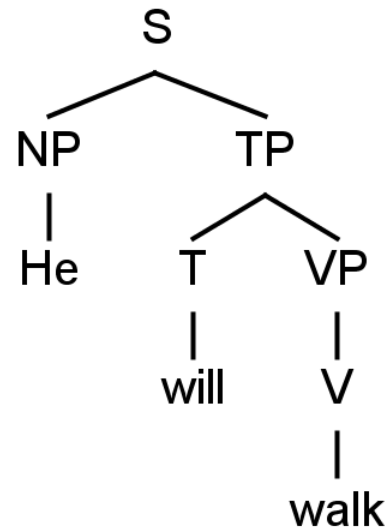
- The verb gets tense by 'moving'.



# Tense Phrase

'He will walk.'

- 'will' indicates a tense, so it can start in T.



# Evidence

- Is there any evidence supporting a 'tense' phrase and movement of the verb into 'tense'?
  - negation
  - yes/no questions
  
- We will also see further evidence that things 'move'.
  - 'have'
  - subject-verb agreement
  - wh-questions

# Negation

- Tense must precede negation (in English)

I **will not** go (future)

\*I **not will** go

cf. I will go

I **did not** go (past)

\*I **not did** go

\*I **not went**

cf. I went

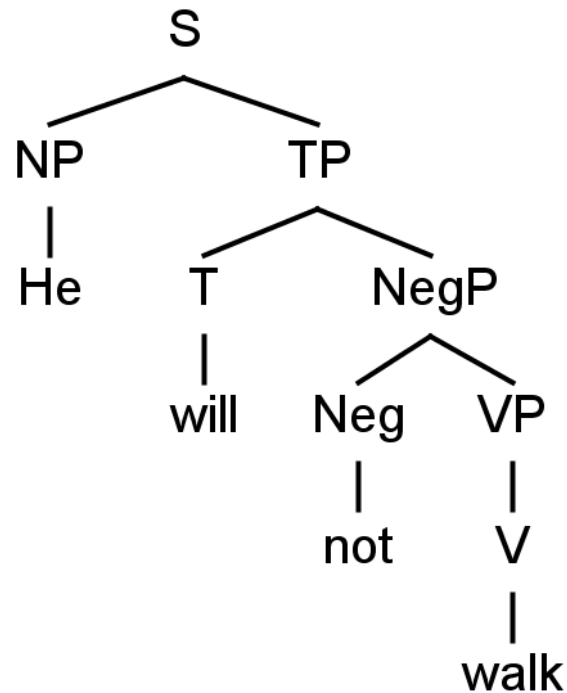
He **does not** go (present)

\*He **not goes**

cf. He goes

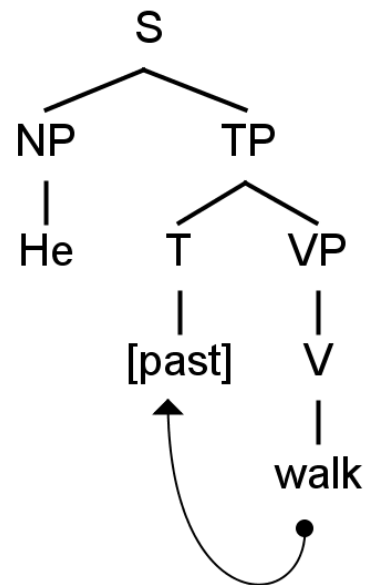
# Negation

- Negation appears between the 'tense' and the main verb.



# Negation

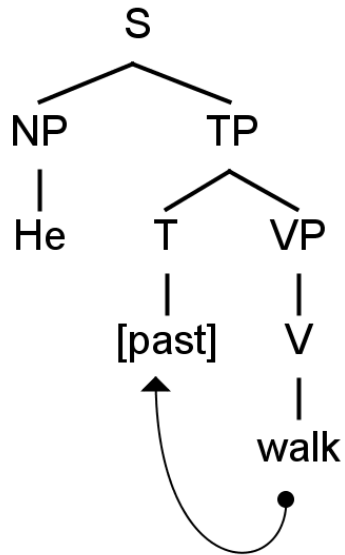
- Why doesn't the verb just move to get tense?



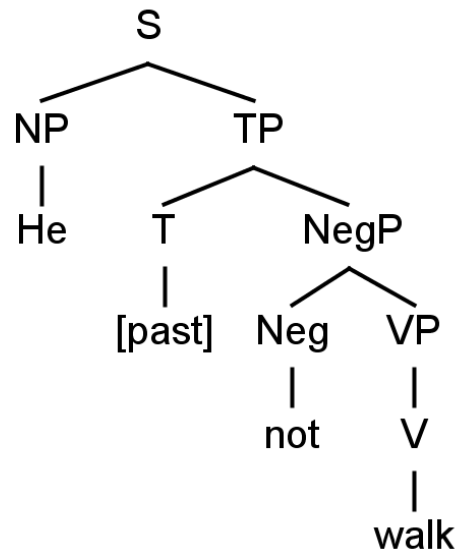
- Negation blocks this movement.

# Negation

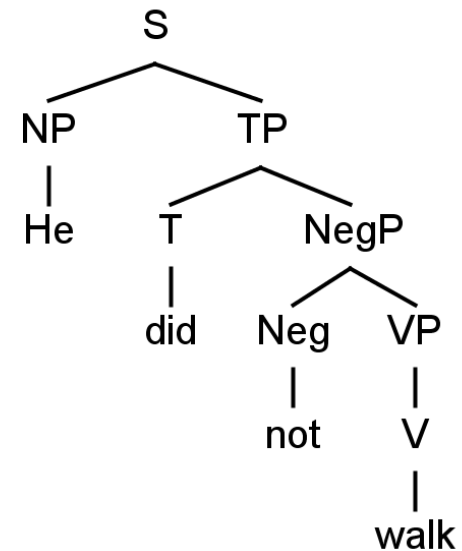
- How do we get tense when there is negation?



Affirmative sentence



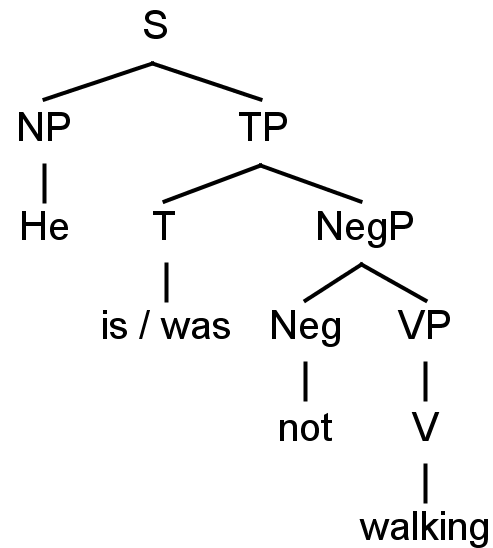
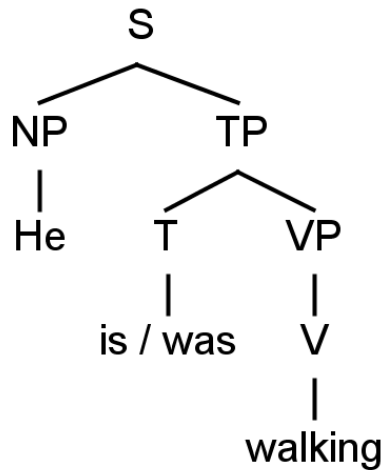
Negative sentence  
(movement blocked)



Solution: insert dummy verb  
'do' to show tense

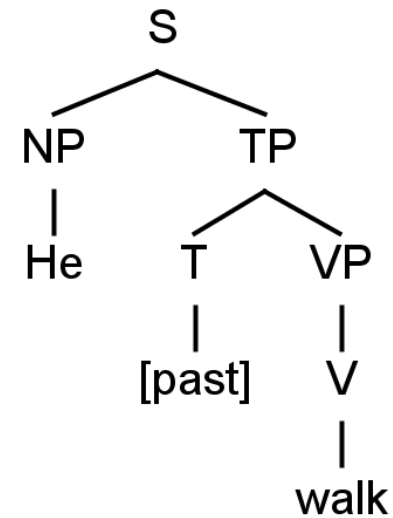
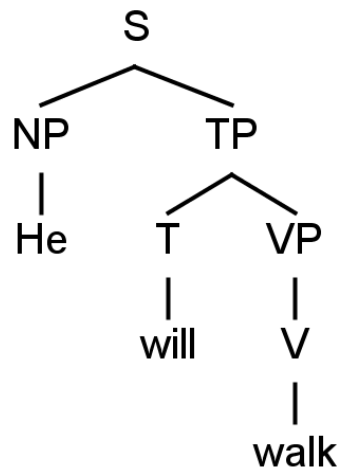
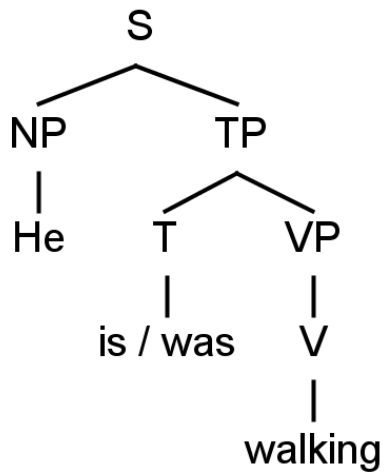
# Negation

- Present progressive (be + Ving)  
'He is walking' / 'He was walking'



# Yes/no questions

- Yes/No Questions



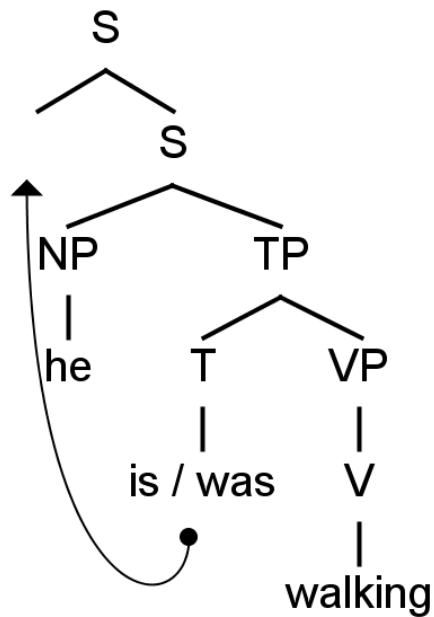
'He walked' before  
movement

- What are the yes/no question form for each?

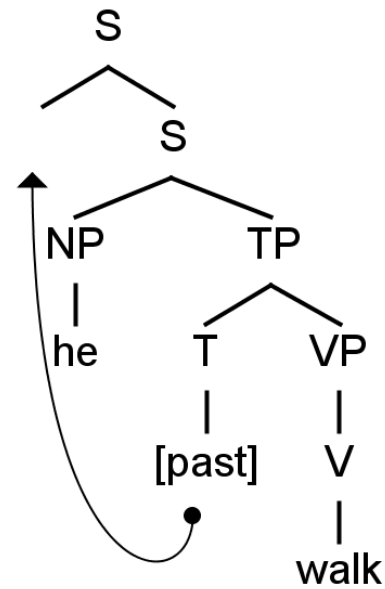
# Yes/no questions

1. He is walking → Is he walking?
2. He was walking → Was he walking?
3. He will walk → Will he walk?
4. He walked → Did he walk?
5. He walks → Does he walk?

# Yes/no questions

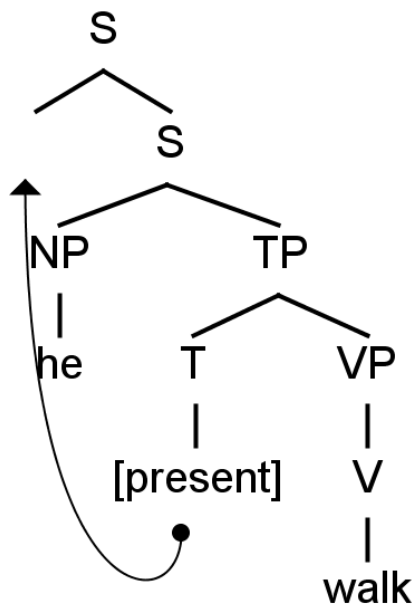


Is/Was he walking?

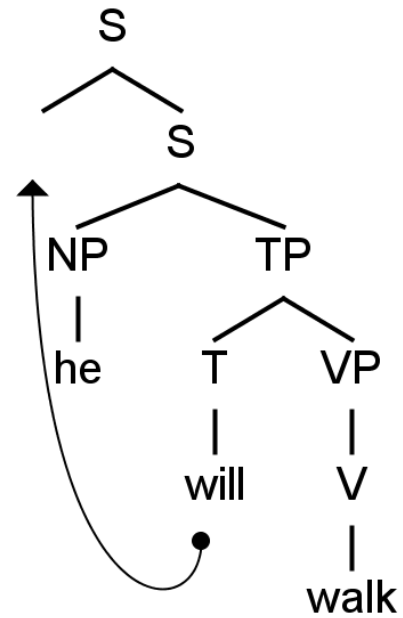


Did he walk?

# Yes/no questions



Does he walk?



Will he walk?

# 'have'

- There are actually more than one verb 'have'
  - Main verb generally meaning 'to possess'  
'I have a book.'
  - Helping/auxiliary verb (for tense/aspect purposes)  
'I have gone to France.'
- The main verb 'have' and the auxiliary 'have' behave differently.

# 'have'

- Main verb: does not precede negation

I have a book.

\*I have not a book.

I do not have a book

- Helping verb: precedes negation

I have gone to France

I have not gone to France

\*I do not have gone to France

# 'have'

- Main verb: no subject-aux inversion

I have a book.

\*Have you a book?

Do you have a book?

- Helping verb: undergoes subject-aux inversion

I have gone to France.

Have you gone to France?

\*Do you have gone to France?

# What is T?

- 'be', 'have' and the dummy 'do' appear in T. What else?
- What evidence do you have?

# Agreement

- English has agreement between the verb and the subject:
  - 3<sup>rd</sup> person singular -s (present tense)

	singular	plural
1 <sup>st</sup> person	I walk	we walk
2 <sup>nd</sup> person	you walk	you walk
3 <sup>rd</sup> person	he walks she walks it walks	they walk

# Agreement

- 'have' also shows this agreement with a subject.

	singular	plural
1 <sup>st</sup> person	I have	we have
2 <sup>nd</sup> person	you have	you have
3 <sup>rd</sup> person	he has she has it has	they have

# Agreement

- Tense and agreement appear in the same position.

	You...	He...
walk	You <b>walk</b> . You <b>do not</b> walk. <b>Do</b> you walk?	He <b>walks</b> . He <b>does not</b> walk. <b>Does</b> he walk?
have <sub>poss</sub>	You <b>have</b> a book. You <b>do not</b> have a book. <b>Do</b> you have a book?	He <b>has</b> a book. He <b>does not</b> have a book. <b>Does</b> he have a book?
have <sub>aux</sub>	You <b>have</b> gone. You <b>have not</b> gone. <b>Have</b> you gone?	He <b>has</b> gone. He <b>has not</b> gone. <b>Has</b> he gone?

# Wh-questions

- In *wh*-questions, *wh*-words move to the front of a clause.
  - *wh*-words include: who, what, when, where, why, how...

He bought a book.

He bought what? → What did he buy?

He went to the store.

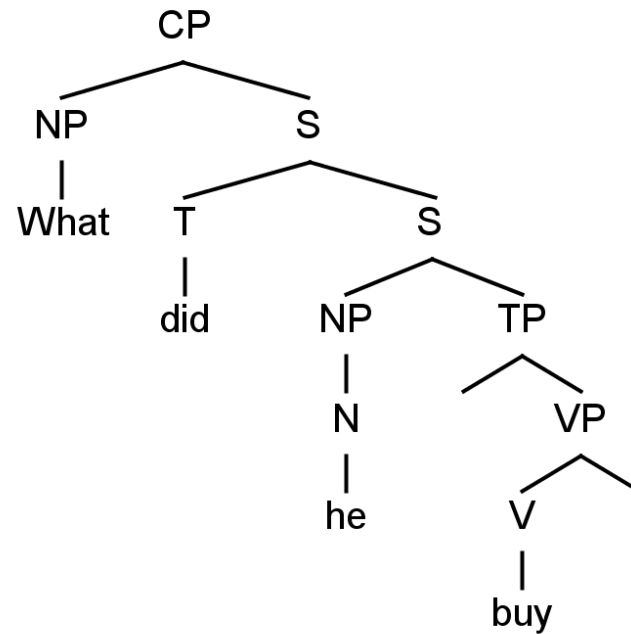
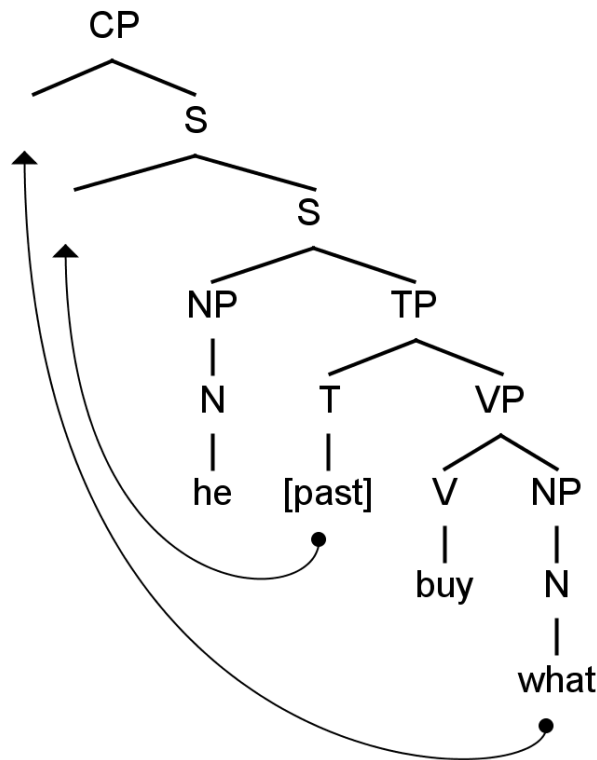
He went where? → Where did he go?

He went by bike.

He went how? → How did he go?

# Wh-questions

- Below is a theory of what happens in *wh*-questions.



# Wh-questions

- Concerning wh-questions, we see three kinds of languages:
  - Those which move them (e.g. English, German, Czech)
  - Those which don't (e.g. Japanese, Korean, Swahili)
  - Those which optionally move them (e.g. French, Malay)
- Importantly, when moved, languages always move the wh-word to the same position (to CP)

# Wh-questions

- When we have two clauses, *wh*-words move to the beginning of the sentence in *wh*-questions.

[ What did you say [ that John bought \_\_\_\_ ] ]?

The diagram illustrates the clause structure of the sentence "[ What did you say [ that John bought \_\_\_\_ ] ]?". A bracket labeled "clause 2" spans the embedded clause "[ that John bought \_\_\_\_ ]". A larger bracket labeled "clause 1" spans the entire sentence "[ What did you say [ that John bought \_\_\_\_ ] ]".

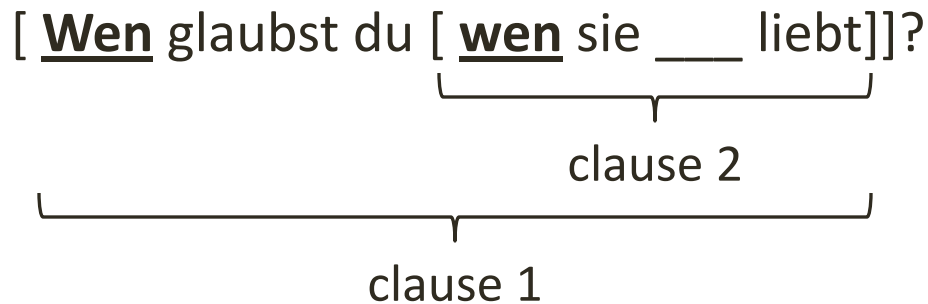
- In 'concealed' *wh*-questions, *wh*-words move to the beginning of their clause only.

[ John asked [ what Tom bought \_\_\_\_ ] ].

The diagram illustrates the clause structure of the sentence "[ John asked [ what Tom bought \_\_\_\_ ] ]". A bracket labeled "clause 2" spans the embedded clause "[ what Tom bought \_\_\_\_ ]". A larger bracket labeled "clause 1" spans the entire sentence "[ John asked [ what Tom bought \_\_\_\_ ] ]".

# Wh-questions

- In some dialects of German, moved *wh*-words can be pronounced more than once...but always at the beginning of a clause!



Wen glaubst du wen sie liebt?

Whom believe you whom she loves

‘Whom do you believe she loves \_\_\_?’

# Conclusion

- The main purpose of these slides was to:
  - demonstrate that there is more to language than what appears on the surface
  - give you an idea of the type of work theoretical syntacticians do
  - show that syntax also has 'rules', just like the other components of the grammar