# 01:615:201 Introduction to Linguistic Theory

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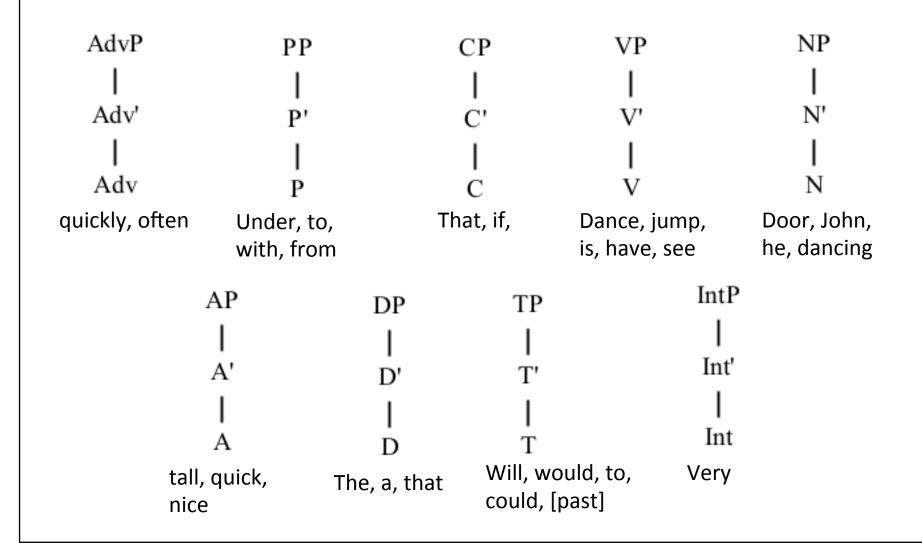
Syntax practice

# Drawing

- Draw trees bottom up
- Use pencil
- Eraser
- Mark clearly what mean
  - Explain why you make a choice if in doubt

#### X-bar

One head matches with one phrase



# Never, and can be

- Never
  - More than two branches
  - No crossing of branches
- Can be
  - Tense has only features
  - Determiners in Nouns are optional
  - Complements of nouns are optional

# X-bar intermediate projections

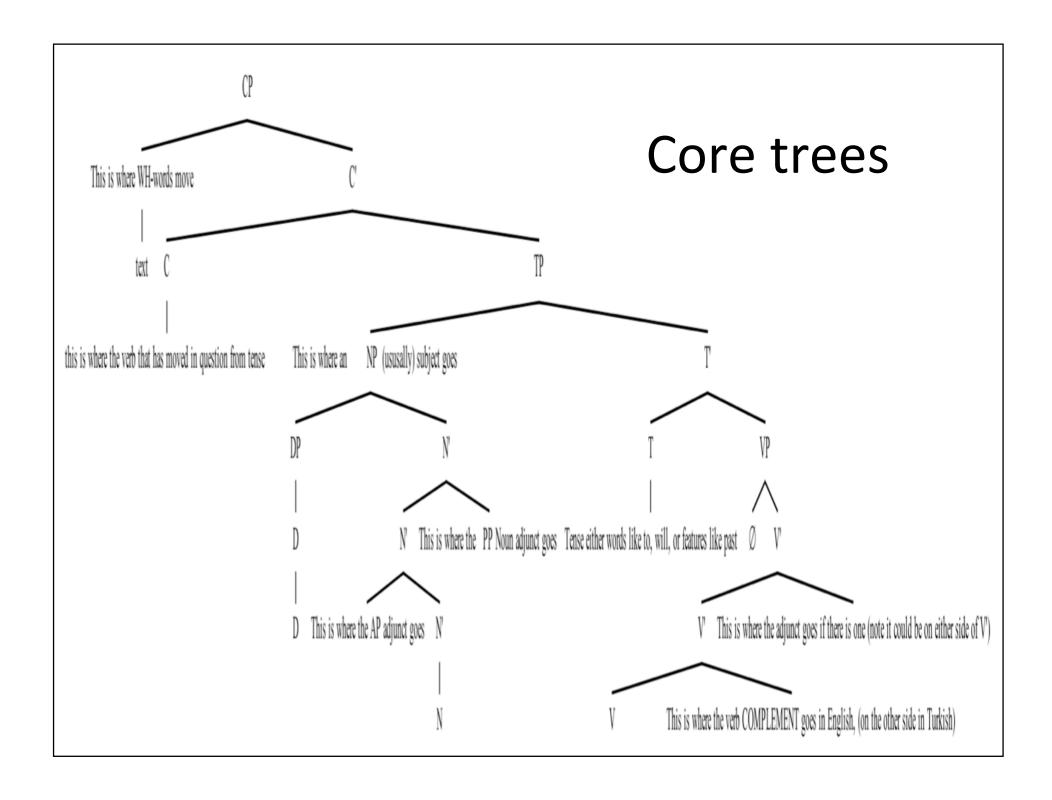
XP

X'

- X-bar requires:
  - At least One X' projection
  - No more than One XP projection
  - No more than One X projection
- X-bar allows:
  - More than one X' projection
    - This is to accommodate adjuncts which are optional modifiers and are sisters of X' and daughters of X'
      - Tip: amount of X' projections= amount of adjuncts plus one

# Complements and Specifiers

- X-bar codifies syntactic, morphological and semantic relationships
  - Complement (sister of X):
    - Required for meaning in the case of verbs
    - Optional with nouns
    - Required for C (TP), for T (VP) for P (NP) for Int (AP)
  - Specifier (daughter of XP)
    - Subject position Spec-TP
    - DP in Spec-NP
    - Wh-in Spec-CP



# PS Rules, they impose top down well formedness of what X-bar has built bottom up. They do not describe transformations

$$1.1 \text{ CP} \rightarrow \overline{C}$$

1.2 
$$\overline{C} \rightarrow C TP$$

1.3 TP
$$\rightarrow$$
NP $\overline{T}$ 

$$1.4 \overline{T} \rightarrow T VP$$

1.5 DetP 
$$\rightarrow \bar{D}$$

$$1.6 \,\overline{D} \rightarrow D$$

$$1.7 \text{ NP} \rightarrow \overline{\text{N}}$$

2. NP 
$$\rightarrow$$
 DetP  $\overline{N}$ 

3. 
$$\overline{N} \rightarrow N$$

4. VP 
$$\rightarrow \overline{V}$$

5. 
$$\overline{V} \rightarrow V NP$$

6. 
$$\overline{V} \rightarrow V PP$$

7. 
$$\overline{V} \rightarrow V AP$$

8. 
$$\overline{N} \rightarrow N PP$$

9. PP 
$$\rightarrow \overline{P}$$

10. 
$$\overline{P} \rightarrow P NP$$

11. AP 
$$\rightarrow \bar{A}$$

12. 
$$\overline{A} \rightarrow A$$

13. 
$$\overline{A} \rightarrow A PP$$

14. 
$$\overline{N} \rightarrow AP \overline{N}$$

15. 
$$\bar{A} \rightarrow IntP \bar{A}$$

16. 
$$\overline{V} \rightarrow \overline{V} PP$$

17. 
$$\overline{N} \rightarrow \overline{N} PP$$

18. 
$$\overline{V} \rightarrow AdvP \overline{V}$$

19. 
$$\overline{V} \rightarrow \overline{V} \text{ AdvP}$$

P20. 
$$\overline{V} \rightarrow V VP$$

P21. IntP 
$$\rightarrow$$
In $\overline{t}$ 

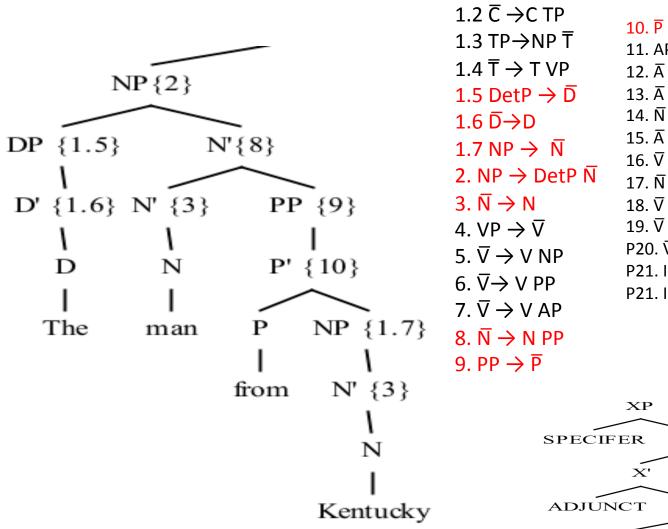
- X-bar is universal,
- PS rules encode language specific properties and word order,
  - but need to conform to X-bar
- C- selection and S-selection is Lexically determined,
  - although C-selection of C and T seems universal.

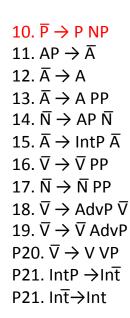
#### Practice trees NP

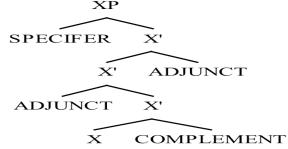
- Draw
  - The man from Kentucky
- It is an NP because:
  - It can be replaced by a pronoun: HE
    - The man from Kentucky danced, he was good
  - It can be clefted:
    - It was the man from Kentucky who danced in the bar
  - It can be coordinated with an NP
    - I saw Roger and the man from Kentucky
  - It can be modified by an AdjectiveP
    - The very tall man from Kentucky is here

# The man from Kentucky

 $1.1 \text{ CP} \rightarrow \overline{C}$ 



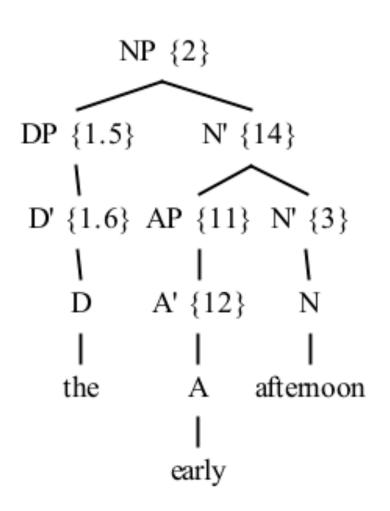




# NP practice

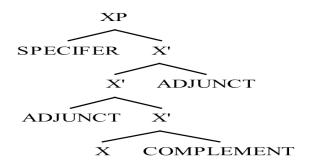
- Draw: The man from Kentucky will like coffee in the early afternoon
- It is an NP because
  - Modified by an AP 'early'
  - Coordinated with other NP's
    - The man from Kentucky will like coffee in the late evening and the early afternoon

### NP, AP Tree



 $1.1 \text{ CP} \rightarrow \overline{C}$  $1.2 \overline{C} \rightarrow C TP$ 1.3 TP $\rightarrow$ NP $\overline{T}$  $1.4 \overline{\mathsf{T}} \rightarrow \mathsf{T} \mathsf{VP}$ 1.5 DetP  $\rightarrow \bar{D}$ 1.6 D→D  $1.7 \text{ NP} \rightarrow \overline{\text{N}}$ 2. NP  $\rightarrow$  DetP  $\bar{N}$ 3.  $\overline{N} \rightarrow N$ 4. VP  $\rightarrow \overline{V}$ 5.  $\overline{V} \rightarrow V NP$ 6.  $\overline{V} \rightarrow V PP$ 7.  $\overline{V} \rightarrow V AP$ 8.  $\overline{N} \rightarrow NPP$ 9. PP  $\rightarrow \overline{P}$ 

10.  $\overline{P} \rightarrow P NP$ 11.  $AP \rightarrow \overline{A}$ 12.  $\overline{A} \rightarrow A$ 13.  $\overline{A} \rightarrow A PP$ 14.  $\overline{N} \rightarrow AP \overline{N}$ 15.  $\overline{A} \rightarrow IntP \overline{A}$ 16.  $\overline{V} \rightarrow \overline{V} PP$ 17.  $\overline{N} \rightarrow \overline{N} PP$ 18.  $\overline{V} \rightarrow AdvP \overline{V}$ 19.  $\overline{V} \rightarrow \overline{V} AdvP$ P20.  $\overline{V} \rightarrow V VP$ P21.  $IntP \rightarrow In\overline{t}$ P21.  $In\overline{t} \rightarrow Int$ 

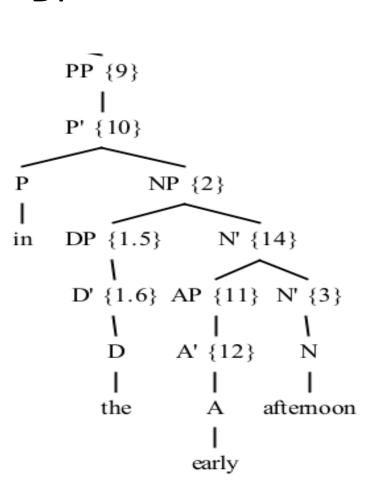


### PP practice

- Draw: The man from Kentucky will like coffee in the early afternoon
- It is a PP because it can be coordinated with other PP's
  - The man from Kentucky will like coffee on the porch and in the early afternoon
- NOTE the PP contains an NP
  - The early afternoon

# In the early afternoon

The PP contains an NP that contains an AP and



DP

```
10. \overline{P} \rightarrow P NP
1.1 \text{ CP} \rightarrow \overline{C}
1.2 \overline{C} \rightarrow C TP 11. AP \rightarrow \overline{A}
1.3 TP\rightarrowNP\overline{T} 12. \overline{A} \rightarrow A
1.4 \overline{\mathsf{T}} \rightarrow \mathsf{T} \mathsf{VP} \qquad 13. \overline{\mathsf{A}} \rightarrow \mathsf{A} \mathsf{PP}
1.5 DetP \rightarrow \bar{D}
                                           14. \overline{N} \rightarrow AP \overline{N}
1.6 D→D
                                           15. \overline{A} \rightarrow IntP \overline{A}
1.7 \text{ NP} \rightarrow \overline{N}
                                           16. \overline{V} \rightarrow \overline{V} PP
2. NP \rightarrow DetP \overline{N} 17. \overline{N} \rightarrow \overline{N} PP
3. \overline{N} \rightarrow N
                                            18. \overline{V} \rightarrow AdvP \overline{V}
4. VP \rightarrow \overline{V}
                                            19. \overline{V} \rightarrow \overline{V} \text{ AdvP}
5. \overline{V} \rightarrow V NP
                                           P20. \overline{V} \rightarrow V VP
6. \overline{V} \rightarrow V PP
                                            P21. IntP \rightarrowIn\overline{t}
                                           P21. In\overline{t} \rightarrow Int
7. \overline{V} \rightarrow V AP
8. \overline{N} \rightarrow NPP
9. PP \rightarrow \overline{P}
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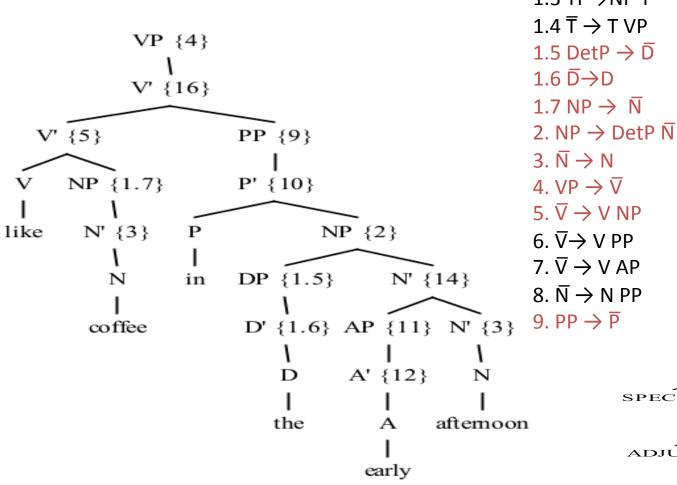
#### Practice VP

Draw: The man from Kentucky will

#### like coffee in the early afternoon

- It is a VP because
  - It can be elided
    - The man from Kentucky will like coffee in the early afternoon but Gladys won't like coffee in the early afternoon
  - It can be modified by an Adverbial Phrase
    - The man from Kentucky will very often like coffee in the early afternoon
  - It can be coordinated with a VP
    - The man from Kentucky will like coffee in the early afternoon and dancing in the park

# Verb phrase tree



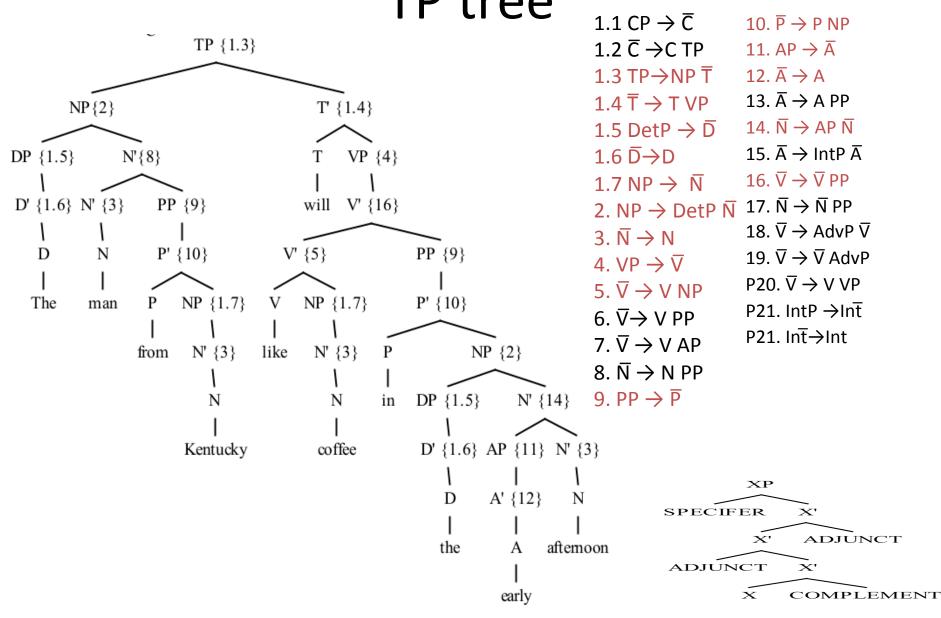
 $1.1 \text{ CP} \rightarrow \overline{C}$  $1.2 \overline{C} \rightarrow C TP$ 10.  $\overline{P} \rightarrow P NP$ 1.3 TP $\rightarrow$ NP $\overline{T}$ 11. AP  $\rightarrow \overline{A}$ 12.  $\overline{A} \rightarrow A$ 13.  $\overline{A} \rightarrow A PP$ 14.  $\overline{N} \rightarrow AP \overline{N}$ 15.  $\overline{A} \rightarrow IntP \overline{A}$ 16.  $\overline{V} \rightarrow \overline{V} PP$ 17.  $\overline{N} \rightarrow \overline{N} PP$ 18.  $\overline{V} \rightarrow AdvP \overline{V}$ 19.  $\overline{V} \rightarrow \overline{V} \text{ AdvP}$ P20.  $\overline{V} \rightarrow V VP$ P21. IntP  $\rightarrow$ In $\overline{t}$ P21. Int →Int



#### $\mathsf{TP}$

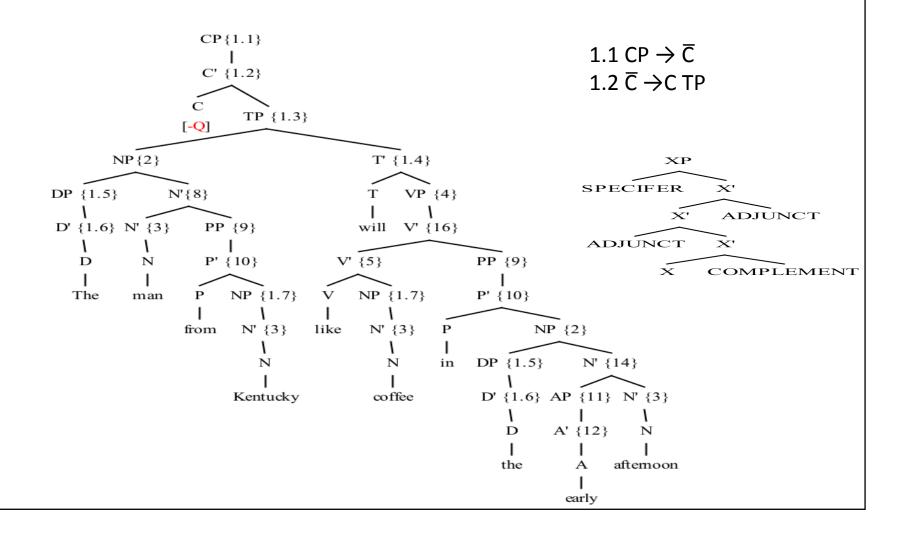
- The man from Kentucky will like coffee in the early afternoon
  - It is a clause since it can be coordinated with other clauses
    - Susan will like to swim in the morning and The man from Kentucky will like coffee in the early afternoon

#### TP tree



#### IS there a CP?

You can have it even if no question, but crucial

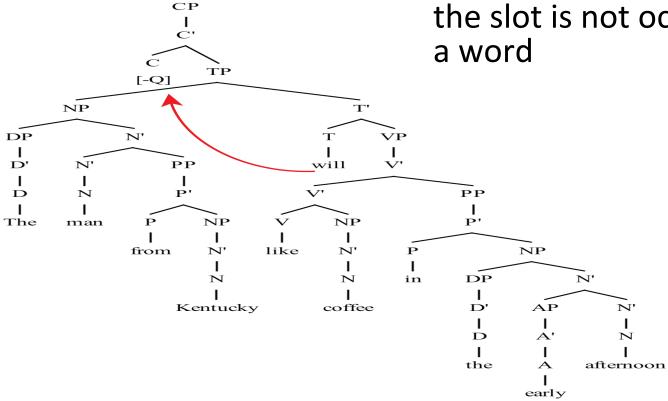


#### Questions

- Movement
  - The man from Kentucky will like coffee in the early afternoon
  - Will the man from Kentucky \_ like coffee in the early afternoon
- There is relationship between the two.
  - One is the answer to the other
- Plus the gap cannot be filled
  - Will the man from Kentucky can like coffee in the early afternoon

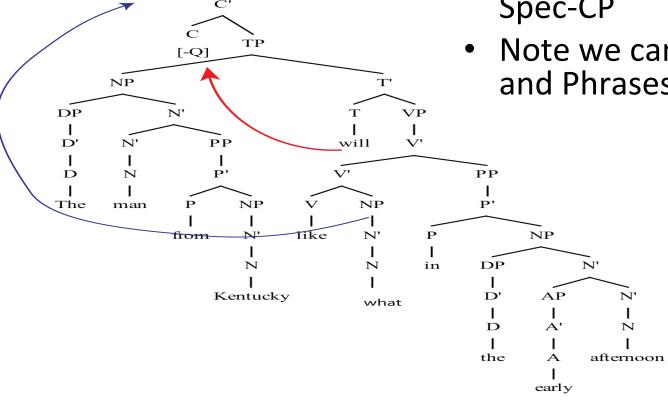
# Drawing yes/no questions

- There are no PS rules
- But a head can only move if the slot is not occupied by a word



# **Drawing Wh-questions**

- No PS rules
- But conforms to X-bar Wh NP moves to empty Spec-CP
- Note we can move heads and Phrases



 $\mathbf{CP}$ 

#### **Exercises**

- What is the category:
  - John likes often to swim as fast as he can
  - Syntactic tree drawing is fun
  - The extremely tall girl who I like is a linguist
  - Hans believed that soon Gunter could dance the tango
  - Marco photographed a very heavy tree in the forest
  - John slept under a bridge

#### TP

- John likes to <u>swim as fast as he can</u>
  - 'To' is in T
  - Underlined string is VP ellipsis
    - John likes to swim as fast as he can
    - but Susan likes not to

#### NP

- Syntactic tree drawing is fun
  - Can be replaced by a pronoun
    - It is fun
  - Can be modified by an Adjective
    - Extreme syntactic tree drawing is fun

#### NP

- The extremely tall girl who I like is a linguist
  - Can be replaced by pronoun:
    - She is a linguist
  - Can be coordinated
    - Mark and the extremely tall girl who I like are linguists

#### TΡ

- Hans believed that Gunter could dance the tango
  - Preceded by C 'that'
  - Can be coordinated with other TP's
  - Hans believed that Gunter could dance the tango and Mary could sing the opera

#### NP

- Marco photographed a very heavy tree in the forest
- Can be replaced by a pronoun
  - Marco photographed it
- Can be coordinated with NP
  - Marco photographed a car and a very heavy tree in the forest

#### PP

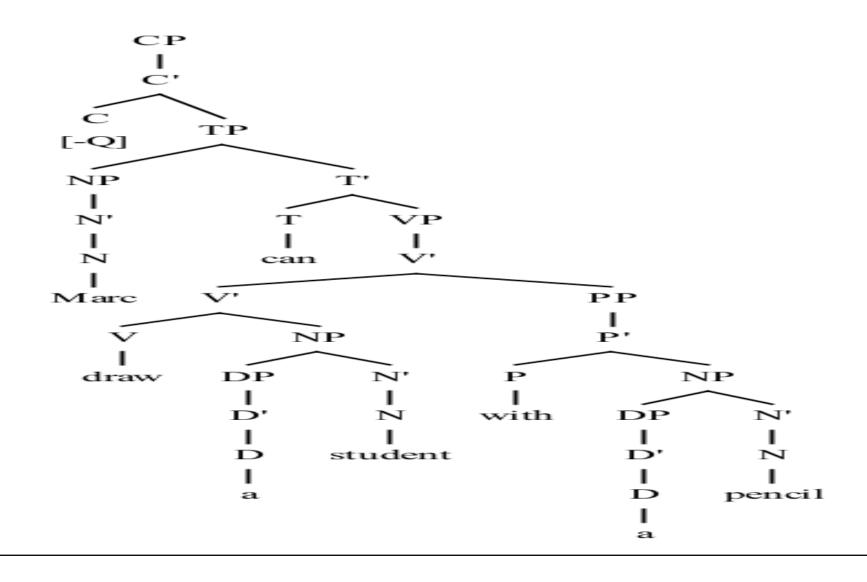
- John slept under a bridge
  - Can be coordinated with other PP's
    - John slept in a box and under a bridge

# Drawing

- Mark can draw a student with a pencil
  - Student has pencil
  - Mark uses pencil

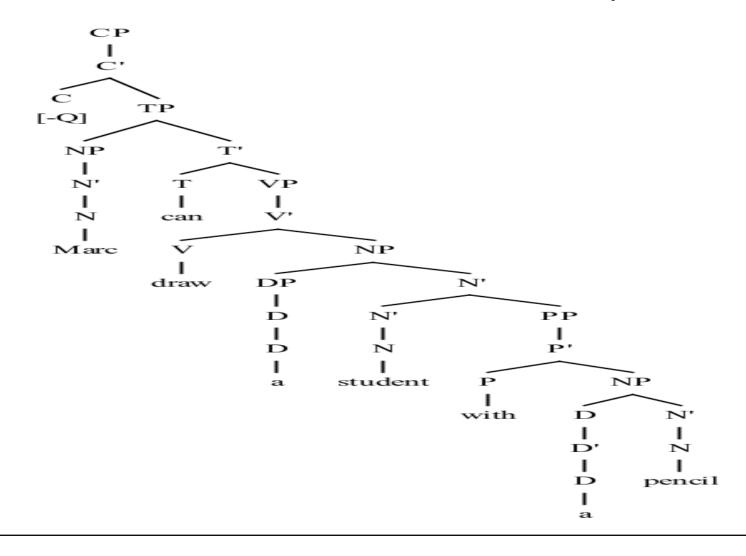
# Using a pencil

Mark can draw a student with a pencil



# Student with a pencil

Mark can draw a student with a pencil

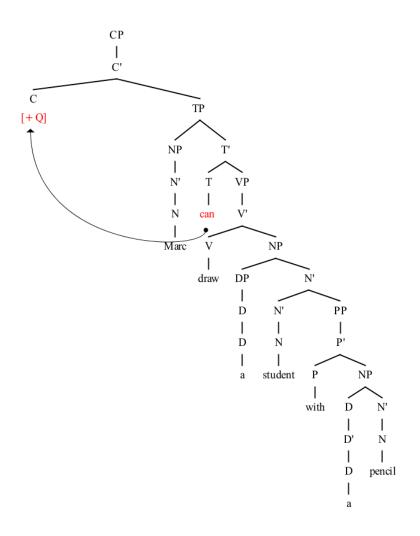


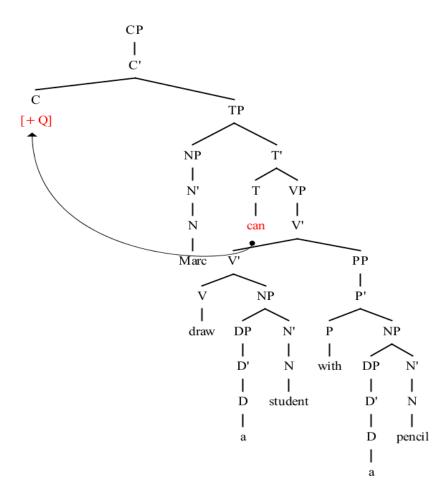
### Question

Can Mark draw a student with a pencil?

#### Yes no Trees

Both structures can be yes/no questions

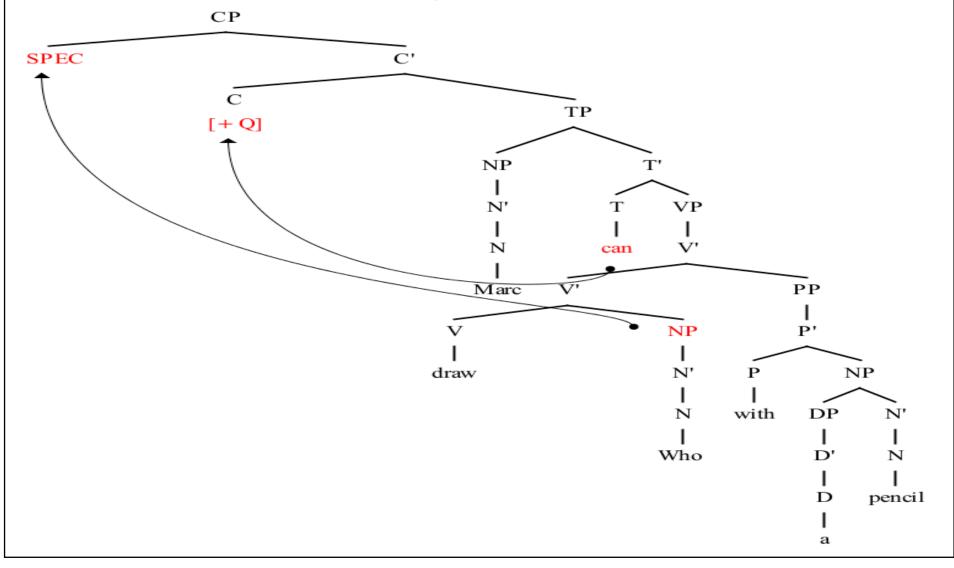




#### Draw

• Who Can Mark draw with a pencil?

# Only one structure – drawing with a pencil



# Student with a pencil can only be asked

