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

<table>
<thead>
<tr>
<th>AdvP</th>
<th>PP</th>
<th>CP</th>
<th>VP</th>
<th>NP</th>
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quickly, often
Under, to,
with, from
That, if,
Dance, jump,
is, have, see
Door, John,
he, dancing

tall, quick,
nice
The, a, that
Will, would, to,
could, [past]
Very
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

• 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
Core trees

This is where WH-words move

This is where the verb that has moved in question from tense

This is where the NP (usually) subject goes

This is where the PP Noun adjunct goes

This is where the ADP adjunct goes

This is where the verb COMPLEMENT goes in English, (on the other side in Turkish)
PS Rules, they impose top down well formedness of what X-bar has built bottom up. They do not describe transformations

1.1 CP → Ċ
1.2 Ċ → C TP
1.3 TP → NP Ĥ
1.4 Ĥ → T VP
1.5 DetP → D
1.6 D → D
1.7 NP → Ĥ
2. NP → DetP Ĥ
3. Ĥ → N
4. VP → Ĥ
5. Ĥ → V NP
6. Ĥ → V PP
7. Ĥ → V AP
8. Ĥ → N PP
9. PP → Ĥ
10. Ĥ → P NP
11. AP → Ĥ
12. Ĥ → A
13. Ĥ → A PP
14. Ĥ → AP Ĥ
15. Ĥ → IntP Ĥ
16. Ĥ → Ĥ PP
17. Ĥ → Ĥ PP
18. Ĥ → AdvP Ĥ
19. Ĥ → Ĥ AdvP
20. Ĥ → V VP
21. IntP → Ĥ

- 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 Adjective P
    • The very tall man from Kentucky is here
The man from Kentucky

1.1 CP → Ĉ
1.2 Ĉ → C TP
1.3 TP → NP T
1.4 T → T VP
1.5 DetP → D
1.6 D → D
2. NP → DetP N
3. N → N
4. VP → V
5. V → V NP
6. V → V PP
7. V → V AP
8. N → N PP
9. PP → P
10. P → P NP
11. AP → Ā
12. Ā → A
13. Ā → A PP
14. N → AP N
15. Ā → IntP Ā
16. V → V PP
17. N → N PP
18. V → AdvP V
19. V → V AdvP
20. V → V VP
21. IntP → Int
21. Int̅ → Int
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 CP → Ĉ
1.2 Ĉ → C TP
1.3 TP → NP Ŕ
1.4 Ŕ → T VP
1.5 DetP → Đ
1.6 Đ → D
1.7 NP → Ŕ
2. NP → DetP Ŕ
3. Ŕ → N
4. VP → Đ
5. Đ → V NP
6. Đ → V PP
7. Đ → V AP
8. Ŕ → N PP
9. PP → Ŕ
10. Ŕ → P NP
11. AP → Ā
12. Ā → A
13. Ā → A PP
14. Ŕ → AP Ŕ
15. Ā → IntP ā
16. Đ → Đ PP
17. Ŕ → Ŕ PP
18. Đ → AdvP Đ
19. Đ → Đ AdvP
20. Đ → V VP
21. IntP → Int
22. Int̅ → 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

\[\begin{array}{ll}
\text{1.1 CP} & \rightarrow \bar{C} \\
\text{1.2 C} & \rightarrow \text{C TP} \\
\text{1.3 TP} & \rightarrow \text{NP T} \\
\text{1.4 T} & \rightarrow \text{T VP} \\
\text{1.5 DetP} & \rightarrow \bar{D} \\
\text{1.6 D} & \rightarrow \text{D} \\
\text{1.7 NP} & \rightarrow \bar{N} \\
\text{2. NP} & \rightarrow \text{DetP N} \\
\text{3. N} & \rightarrow \text{N} \\
\text{4. VP} & \rightarrow \bar{V} \\
\text{5. V} & \rightarrow \text{V NP} \\
\text{6. V} & \rightarrow \text{V PP} \\
\text{7. V} & \rightarrow \text{V AP} \\
\text{8. N} & \rightarrow \text{N PP} \\
\text{9. PP} & \rightarrow \bar{P} \\
\end{array}\]
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 CP → C
1.2 C → CT P
1.3 TP → NP T
1.4 T → T V P
1.5 DetP → D
1.6 D → D
1.7 NP → N
1.8 NP → DetP N
1.9 N → N
1.10 P → P NP
1.11 AP → A
1.12 A → A
1.13 A → A P P
1.14 N → AP N
1.15 A → IntP A
1.16 V → V PP
1.17 N → N P P
1.18 V → AdvP V
1.19 V → V AdvP
1.20 V → V VP
1.21 IntP → Int
1.22 Int → Int

like coffee

V NP {1.7}
V' {5}

V' {16}

VP {4}

PP {9}

like N' {3}

in DP {1.5} N' {14}

N'

V

D' {1.6} AP {11} N' {3}

D A' {12} N

the A

afternoon

carly

XP

SPECIFIER X'

X' ADJUNCT

ADJUNCT X'

X COMPLEMENT
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
IS there a CP?

- You can have it even if no question, but crucial

1.1 CP $\rightarrow \bar{C}$

1.2 $\bar{C} \rightarrow C$ TP
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
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 swim as fast as he can
  – ‘To’ is in T
  – Underlined string is VP ellipsis
      • John likes to swim as fast as he can
      • but Susan likes not to
NP

• Syntax 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
TP

• 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

Marc with a pencil can draw