Geneva, July 3rd

XII UNL School

Day #4

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- ~~Welcome~~
- ~~Context~~
- ~~Normalization Grammar~~
- ~~Closed-Class Dictionary~~
- ~~Open-Class Word List~~
- ~~Corpus~~
- Bruno-A1
- NC-A1
  - LSS
  - SSS
  - NSS

FoR-UNL

LEVEL	UNL-NL DIC	NL-UNL DIC	UNL-NL Grammar	NL-UNL Grammar
A1	MIR-A1	BRUNO-A1	UC-A1	NC-A1
A2	MIR-A2	BRUNO-A2	UC-A2	NC-A2
B1	MIR-B1	BRUNO-B1	UC-B1	NC-B1
B2	MIR-B2	BRUNO-B2	UC-B2	NC-B2
C1	MIR-C1	BRUNO-C1	UC-C1	NC-C1
C2	MIR-C2	BRUNO-C2	UC-C2	NC-C2

Bruno A1

BRUNO-A1
Basic Resources for UNlizatiOn

REPOSITORY	# of ENTRIES
BRUNO-A1	2,000
BRUNO-A2	3,000
BRUNO-B1	5,000
BRUNO-B2	5,000
BRUNO-C1	5,000
BRUNO-C2	5,000

Exercise #7

- Group #1: ar, bg, hy, ms, uk, zh
  - Create an assignment in the project BRUNO-A1 for your language with 50 entries.
- Group #2: ka, km, pa
  - Create an assignment in the project BRUNO-A1 for your language with 5 entries and provide the corresponding inflectional paradigms.

NC-A1

NC-A1
Natural Language Corpus

REPOSITORY	# of PATTERNS
NC-A1	100 (NP) (<ASL/2)
NC-A2	300 (VP) (<ASL/2)
NC-B1	500 (<ASL)
NC-B2	500 (<ASL)
NC-C1	500 (>ASL)
NC-C2	500 (>ASL)

LSS

LSS
linear structure of the sentence

colorless	green	ideas	sleep	furiously
• J	• J	• N	• V	• A

J J N V A

they	are	hunting	dogs
• R	• V • I	• J • V	• N

{R V I J V|R I V N}

Observations

- Punctuation must be preserved:
  - John, Mary and Peter = N, N C N
  - Who is he? = R V R?
- Unknown entries are represented by #
  - John kdolskthteodkfowf Mary = N # N
- Ambiguous categorization is represented only when it cannot be solved
  - Time flies like an arrow = {N N V D N|N V P D N}
- Ambiguity can be local or global:
  - N {N|V} {V|P} D N
  - {N N V D N|N V P D N}

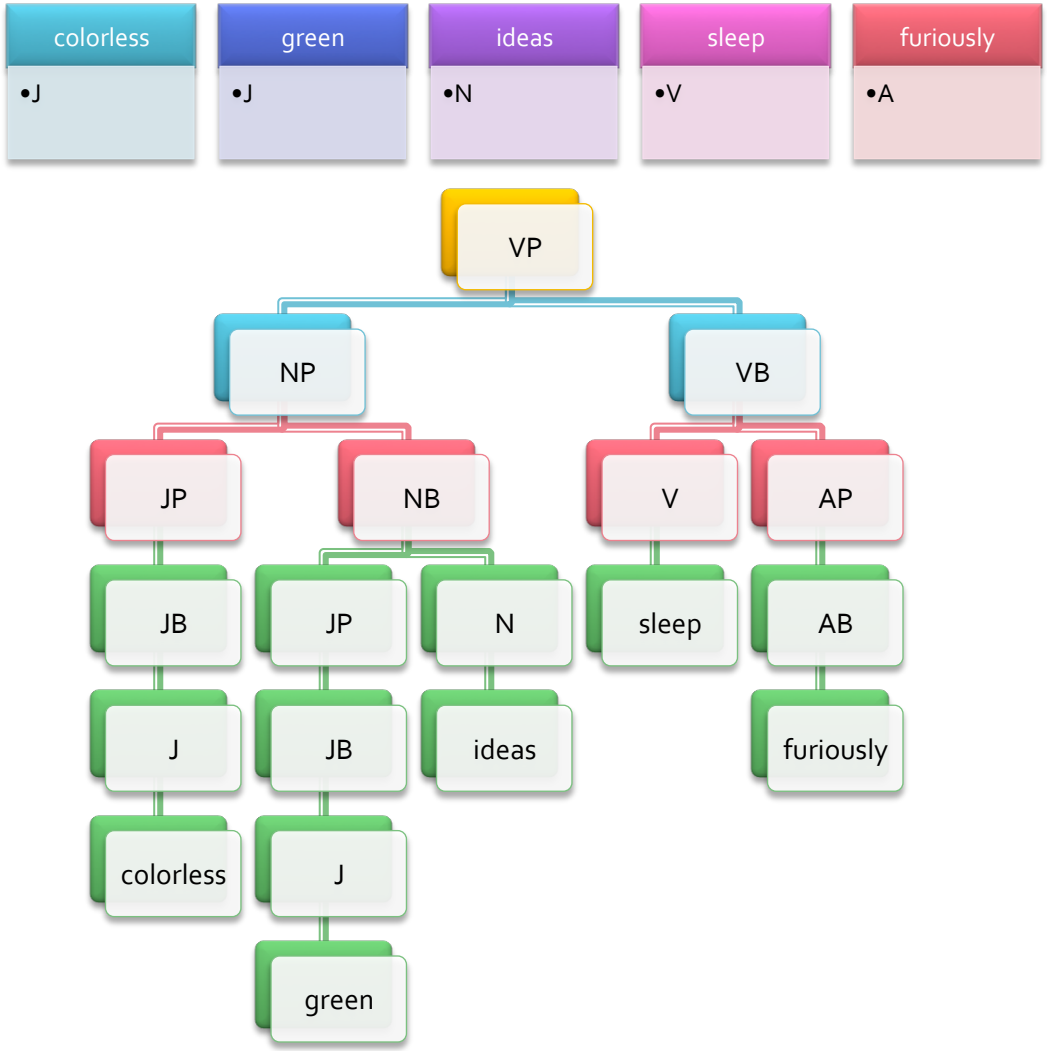
Exercise #8

- Create an assignment in the project NC-TEMP-A1 for 50 sentences
  - Verify the LSS's and correct them whenever necessary
  - Do not close the assignment after finishing it.

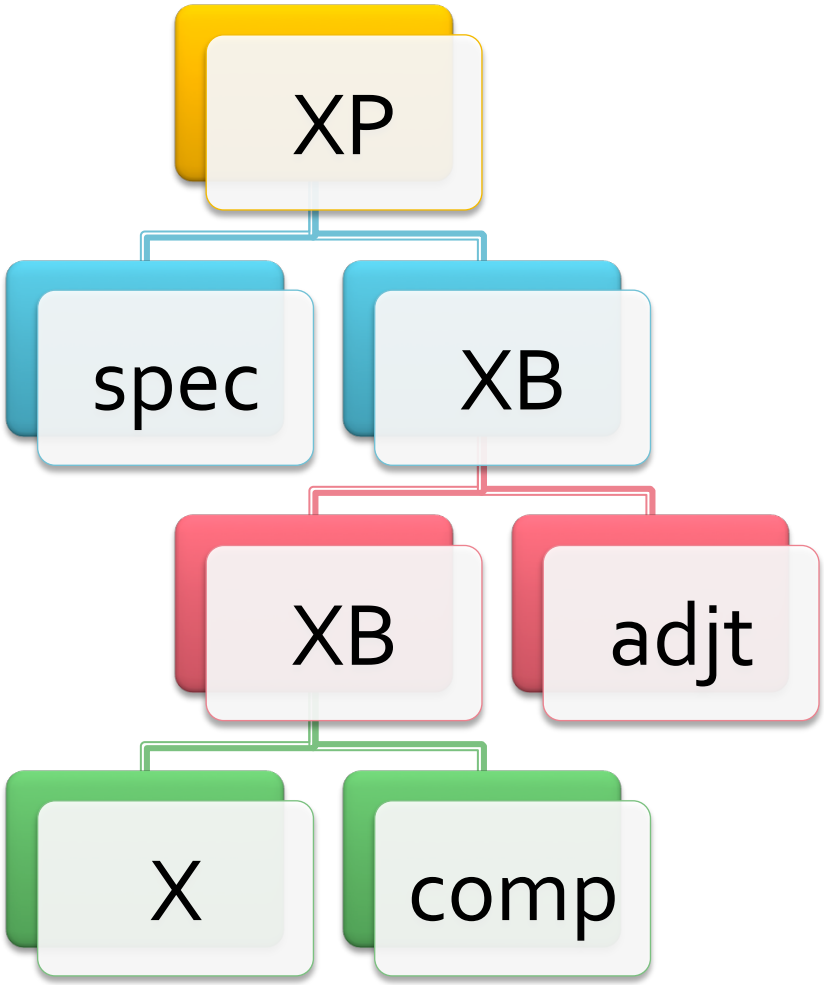
SSS
syntactic structure of the sentence

LSS = LIST

SSS = TREE



X-bar structure

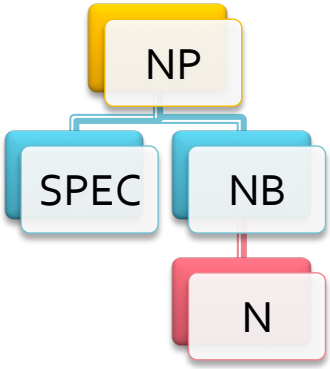


- Where:
  - XP = maximal projection
  - XB = intermediate projections
  - spec = specifier
  - adjt = adjunct
  - comp = complement
  - X = head
    - N (noun)
    - V (verb)
    - J (adjective)
    - A (adverb)
    - D (determiner)
    - P (preposition)
    - C (conjunction)

Possible configurations of a XP (I)

[construction]

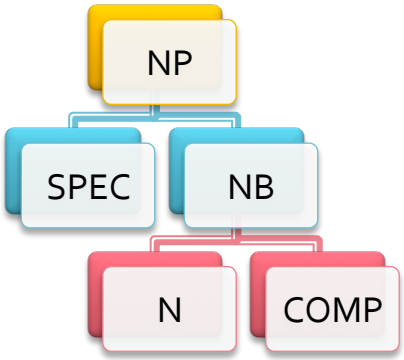
[the] [construction]



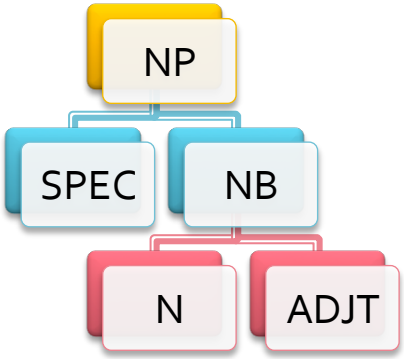
[construction] [of the tower]

[fateful] [construction]

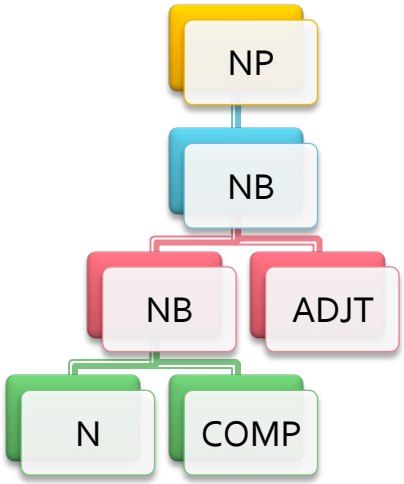
[the] [construction] [of the tower]



[the] [fateful] [construction]

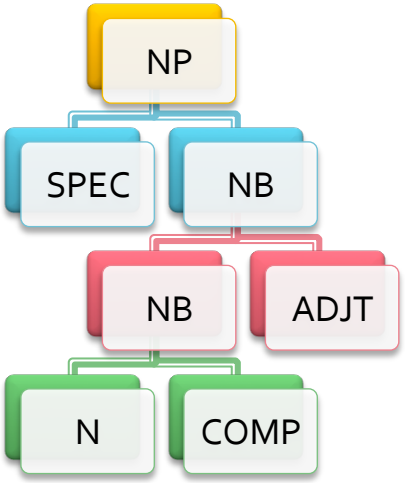


[fateful] [construction] [of the tower]

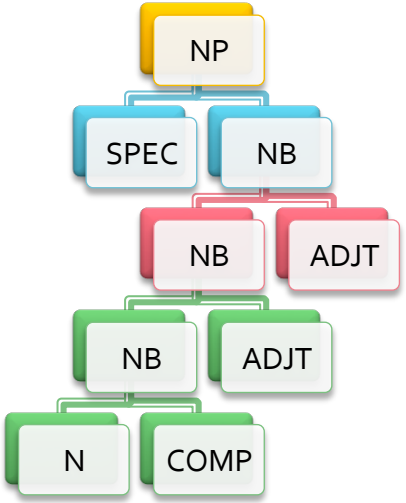


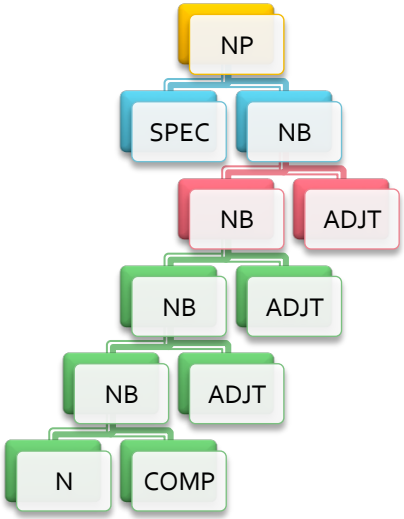
Possible configurations of a XP (II)

[the] [fateful] [construction] [of the tower]



[the] [long] [fateful] [construction] [of the tower]



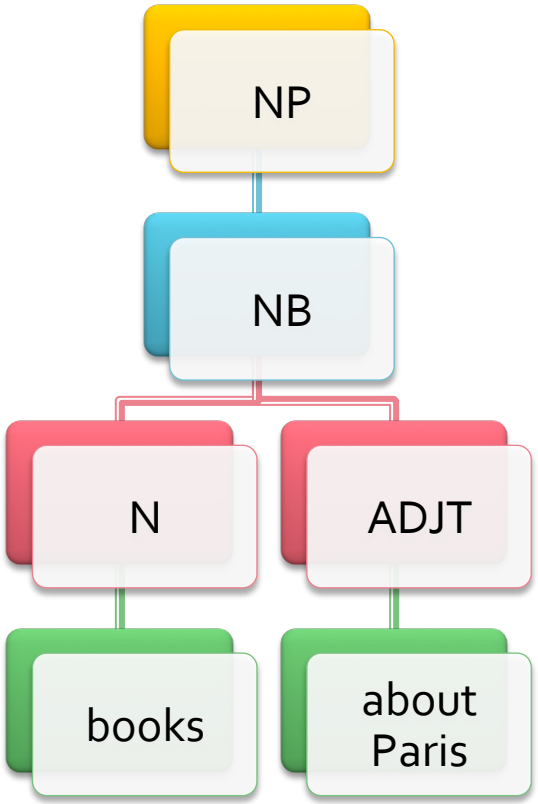


[the] [long] [fateful] [expensive] [construction] [of the tower]

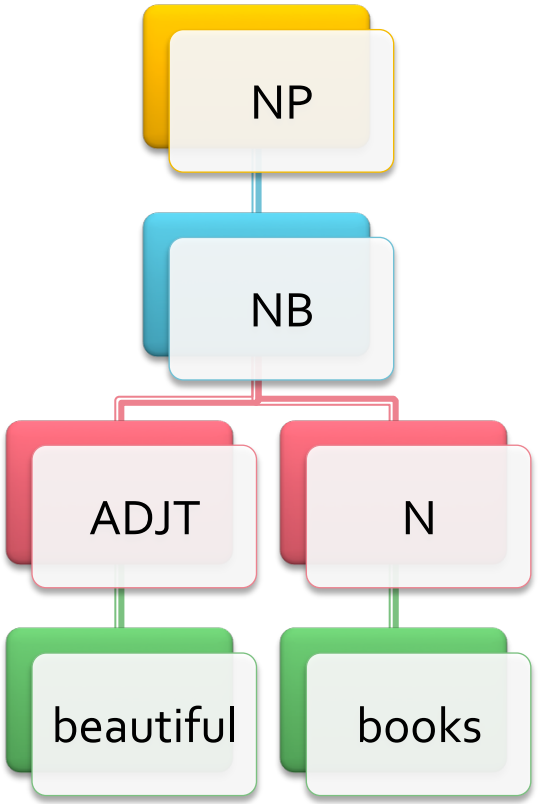
etc.

Order

RIGHT ADJUNCTION

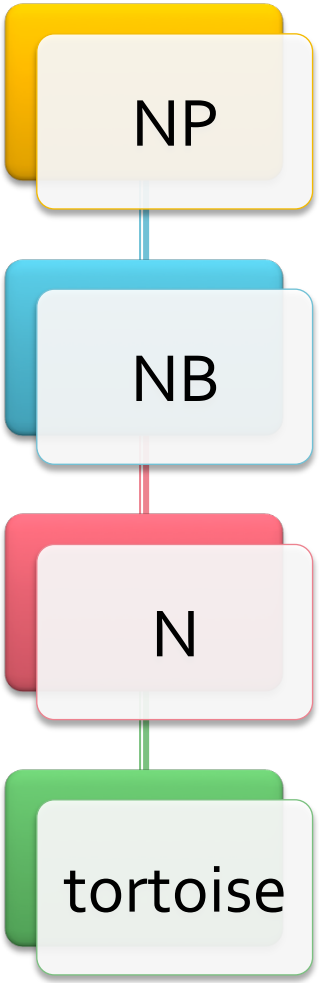


LEFT ADJUNCTION

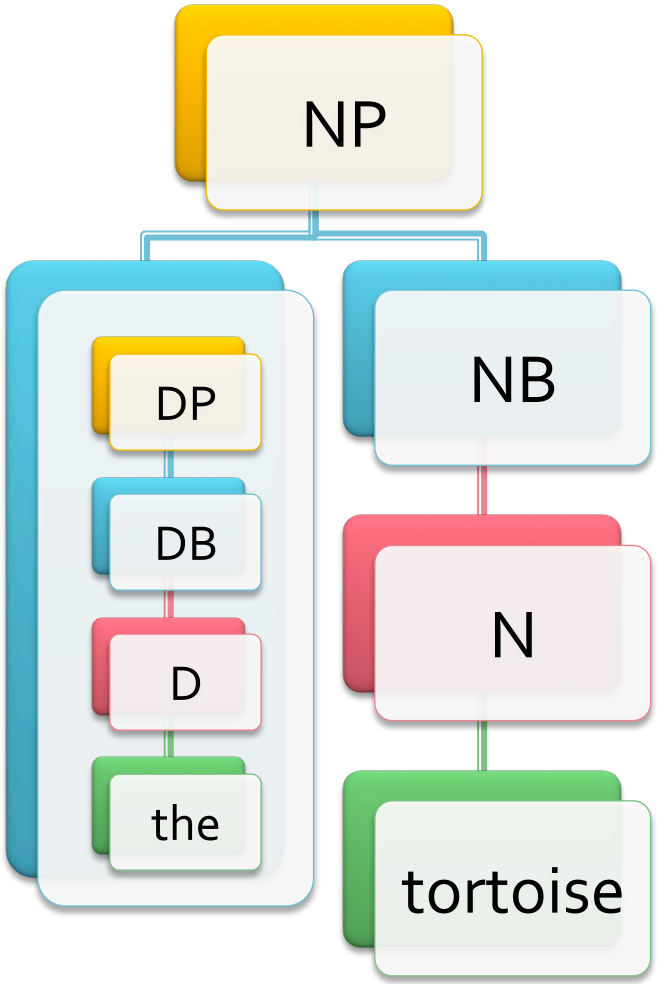


Examples

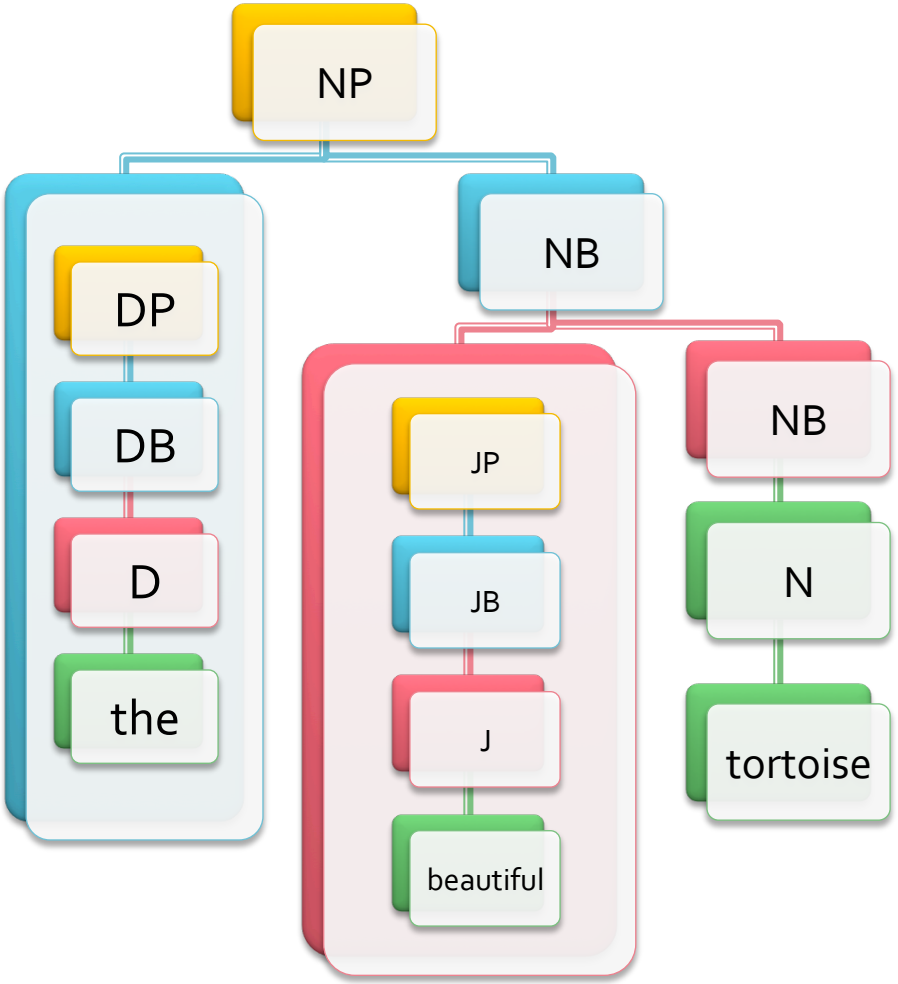
Tortoise



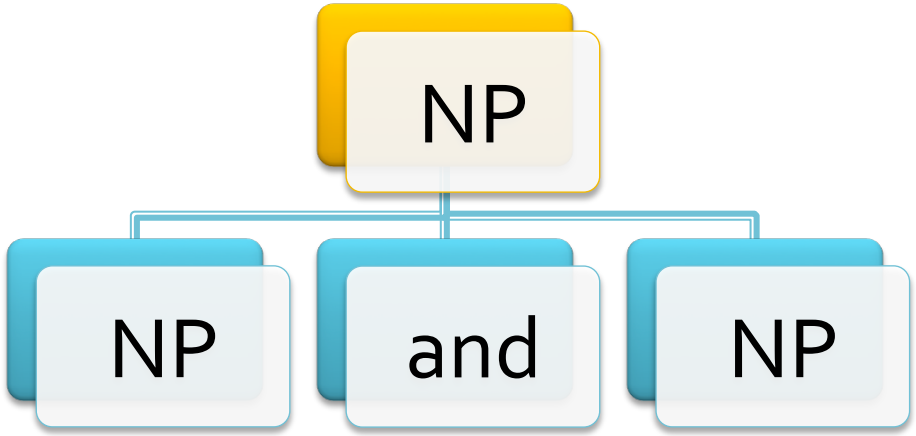
The tortoise

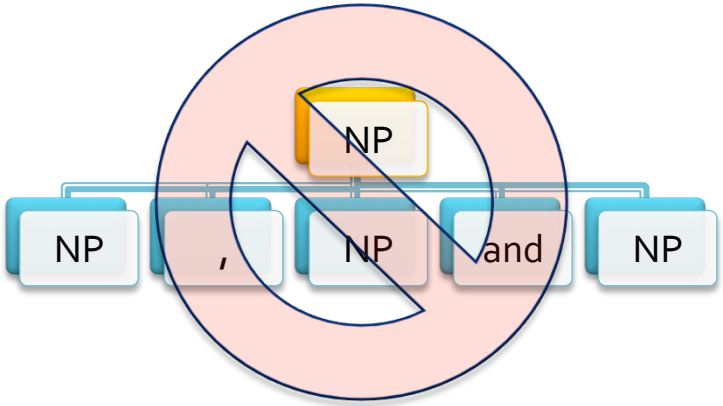


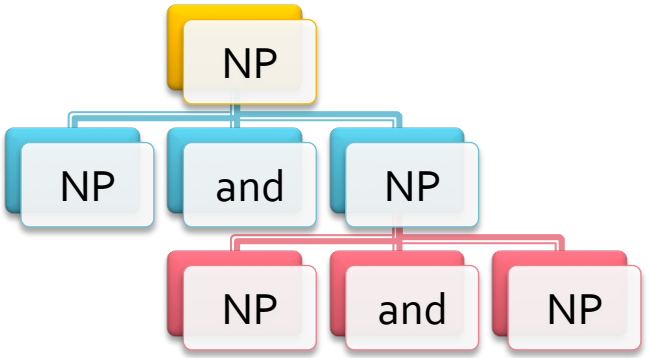
The beautiful tortoise



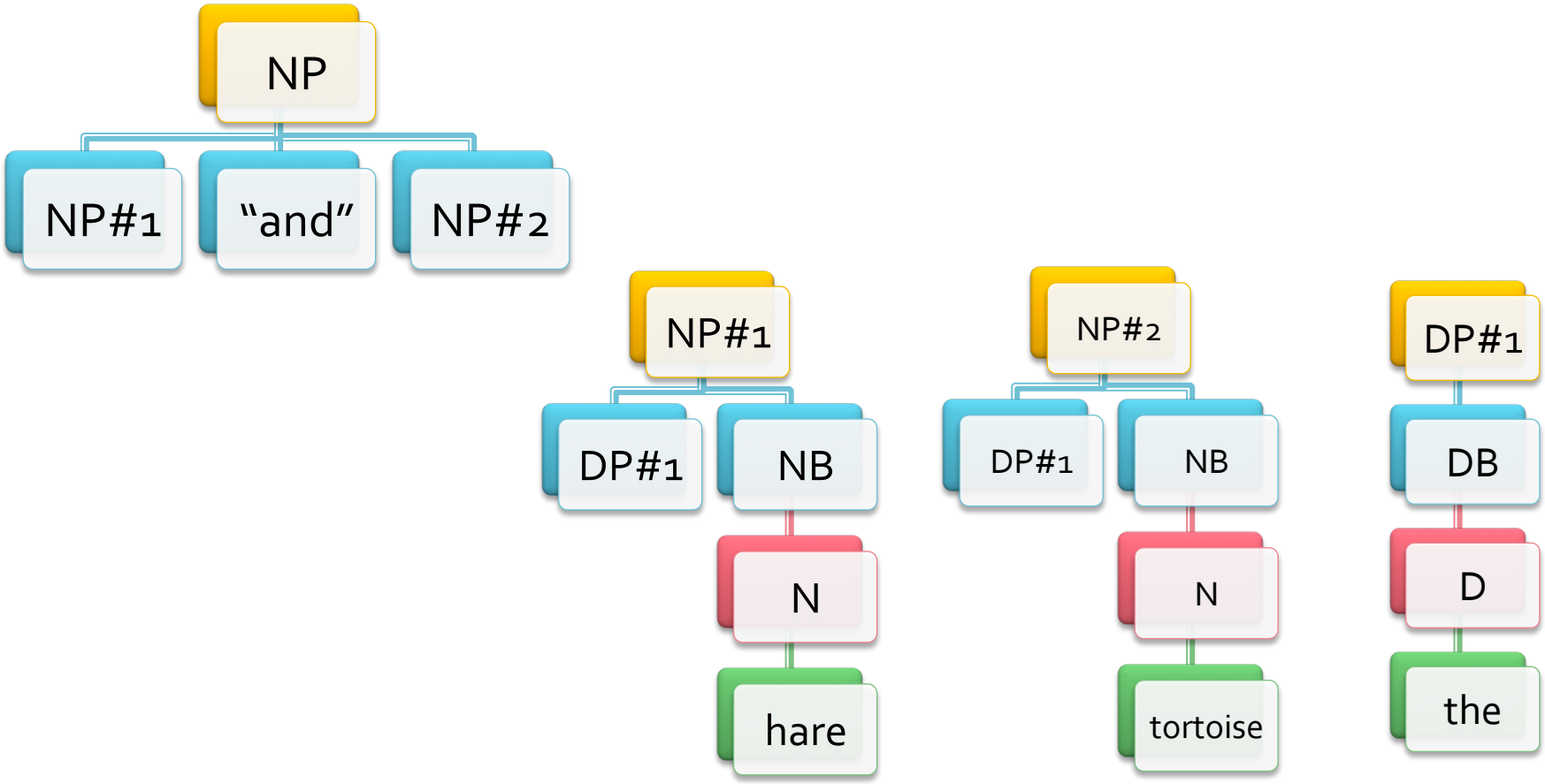
Coordination



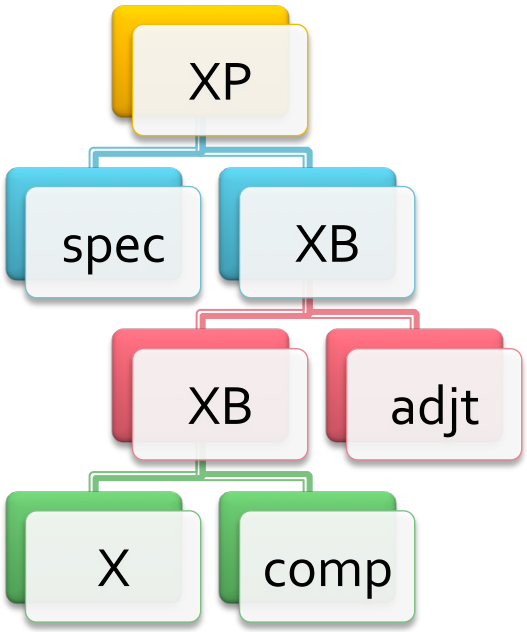




The Hare and the Tortoise



X-bar structure



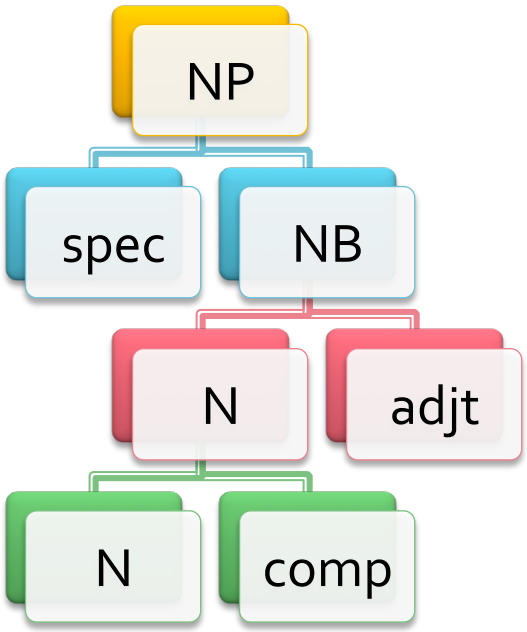
- Phrase-driven

XP(XB(XB(X;comp);adjt);spec)

- Head-driven

- XC(X;comp)
- XA(X;adjt)
- XS(X;spec)

X-bar structure



- Phrase-driven

NP(NB(NB(N;comp);adjt);spec)

- Head-driven

- NC(N;comp)
- NA(N;adjt)
- NS(N;spec)

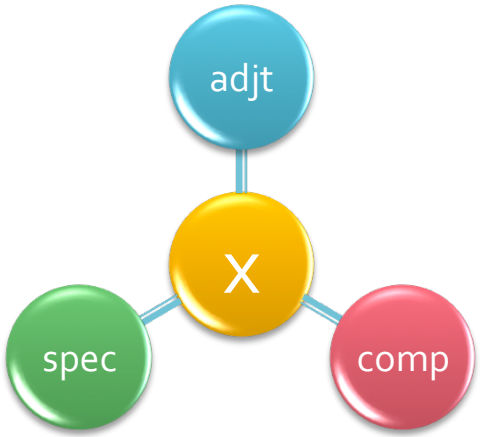
Exercise #9

- Come back to the assignment in the project NC-TEMP-A1 for 50 sentences
  - Provide the SSS's for each sentence

UNL

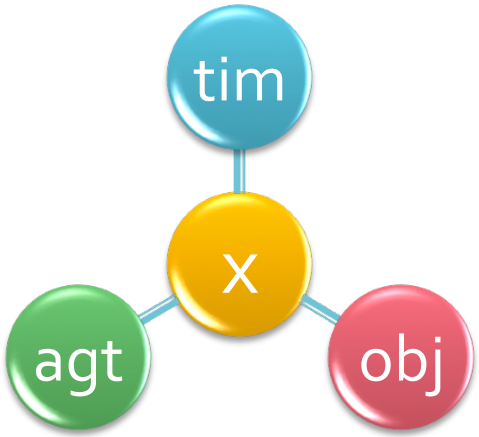
Syntax x Semantics

SYNTAX



XS(X;spec)
XA(X;adjt)
XC(X;comp)

SEMANTICS



agt(X;spec)
tim(X;adjt)
obj(X;comp)

Exercise #10

- Come back to the assignment in the project NC-TEMP-A1 for 50 sentences
  - Provide the UNL for each sentence