

Syntax

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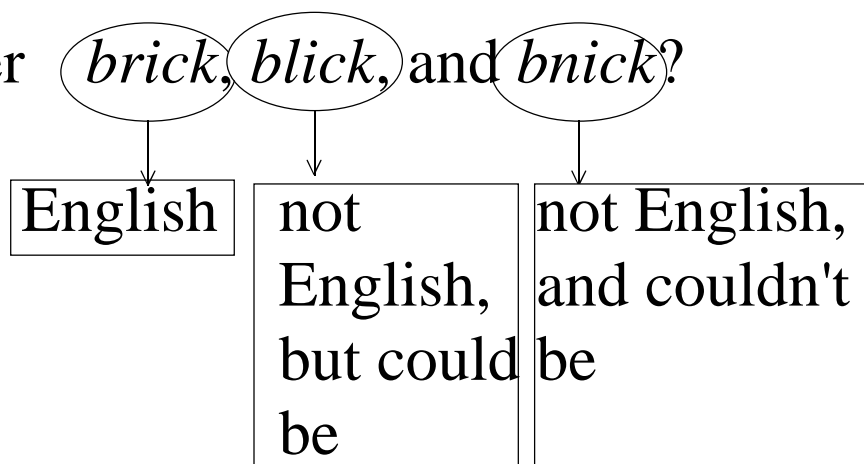
Syntax: the study of how words are combined into sentences.

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remember *brick, blick, and bnick?*

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Similar deal with sentences:

We're going to class. *familiar*

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We're going to class. *familiar*
My anteater is hula dancing. *unfamiliar*

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Similar deal with sentences:

We're going to class.	<i>familiar</i>
My anteater is hula dancing.	<i>unfamiliar</i>
We're class going to.	<i>impossible</i>

Syntax: the study of how words are combined into sentences.

Similar deal with sentences:

We're going to class.	<i>familiar</i>
My anteater is hula dancing.	<i>unfamiliar</i>
*We're class going to.	<i>impossible</i>

What's wrong with "We're class going to"?

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"It doesn't mean anything"?

grammar isn't about meaning.

meaningless but grammatical:

Colorless green ideas sleep furiously.

grammar isn't about meaning.

meaningless but grammatical:

Colorless green ideas sleep furiously.

*Sleep ideas green colorless furiously.

A four-year old's riddle:

Q: What's pink and silver, and flies?

A four-year old's riddle:

Q: What's pink and silver, and flies?

A: The post office!

meaningful but ungrammatical:

I put the sweater on.

I put on the sweater.

I put it on.

* I put on it.

What's wrong with "We're class going to"?

"It ends in a preposition"?

(cf. "Who are you talking to?")

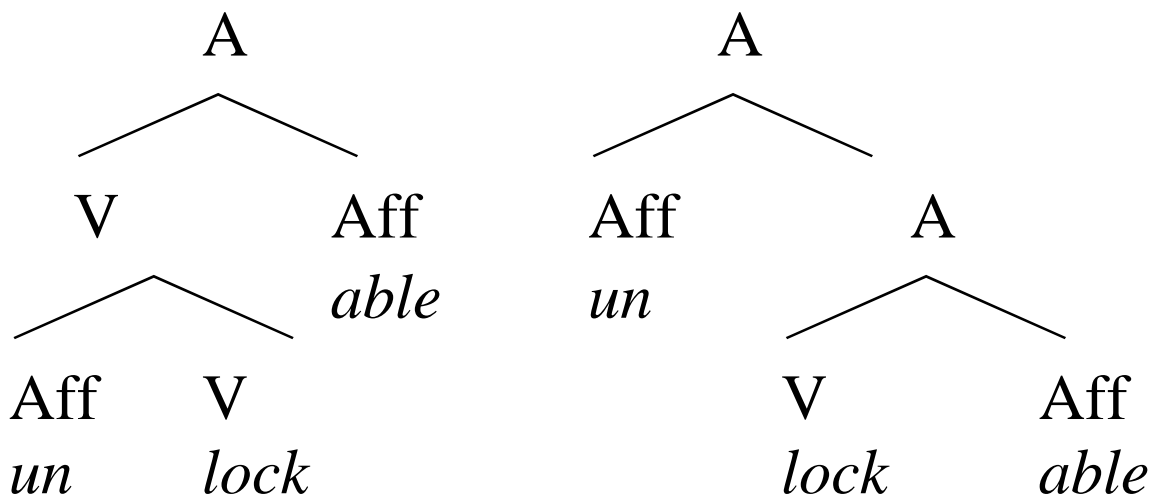
What's wrong with "We're class going to"?

"It ends in a preposition"?

(cf. "Who are you talking to?")

-->prescriptive/descriptive distinction

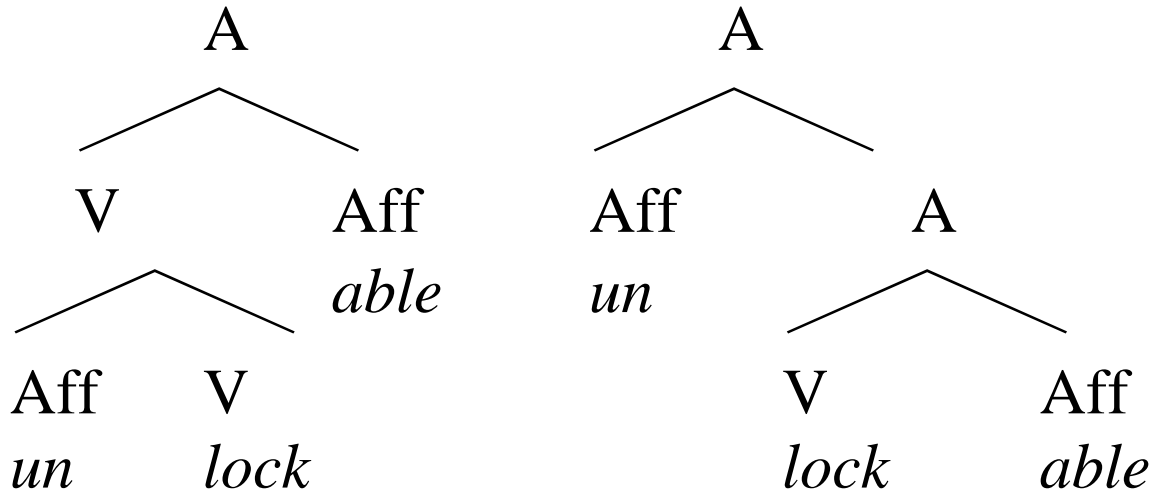
remember Morphology?



'able to be unlocked'

'impossible to lock'

remember Morphology?



'able to be unlocked' 'impossible to lock'

--> words aren't just strings of morphemes

I will find the red book

I will find the red book

noun phrase: syntax treats as a unit

- **topicalization:**

the red book, I will find

I will find the red book

noun phrase: syntax treats as a unit

- **topicalization:**

the red book, I will find

- **coordination:**

I will find the red book and the blue pencils

I will find the red book

noun phrase: syntax treats as a unit

- **topicalization:**

the red book, I will find

- **coordination:**

I will find the red book and the blue pencils

- **possible answer to a question:**

What will you find? --The red book

I will find the red book

not a phrase:

- **topicalization:**

*find the red, I will book

- **coordination:**

*I will find the red and lose a blue book

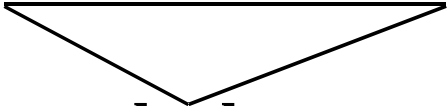
- **possible answer to a question:**

???? --find the red

I will find the red book
red books
books
those red books about linguistics
...etc.

phrase structure rule

NP--> (Det) (Adj) N (P NP)

I will find the red book

verb phrase

- **topicalization:**
find the red book, I will
- **coordination:**
I will find the red book and read it
- **possible answer to a question:**
What will you do? --find the red book

I will find the book
find the book in the garage
leave

phrase structure rule:

VP--> V (NP) (PP)

I will find the book in the garage



prepositional phrase

PP--> P (NP)

(I will look up)

PP--> P (NP)

VP--> V (NP) (PP)

NP--> (Det) (Adj) N (PP)

I found books about syntax

PP--> P (NP)

VP--> V (NP) (PP)

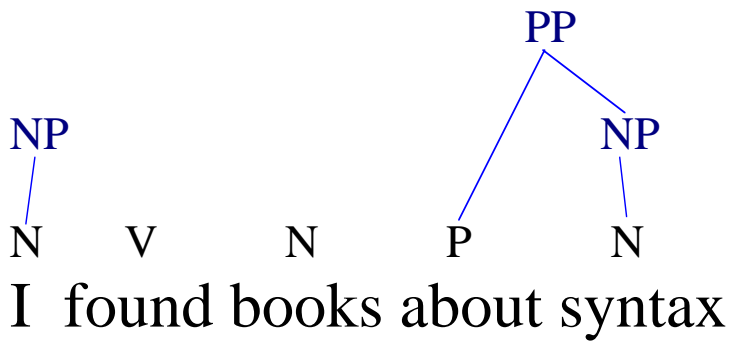
NP--> (Det) (Adj) N (PP)

N V N P N
I found books about syntax

PP--> P (NP)

VP--> V (NP) (PP)

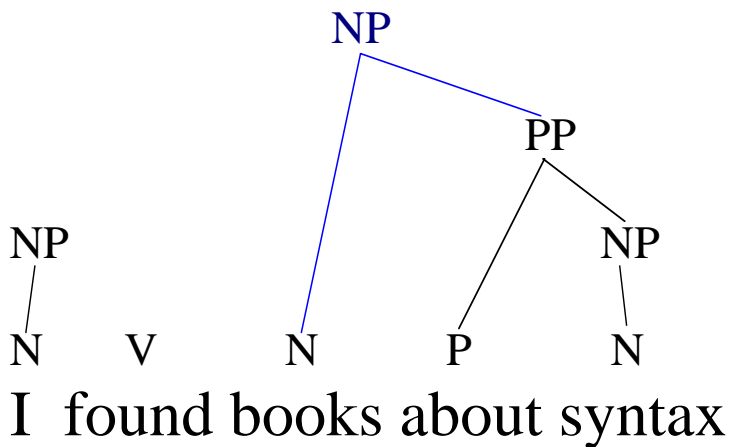
NP--> (Det) (Adj) N (PP)



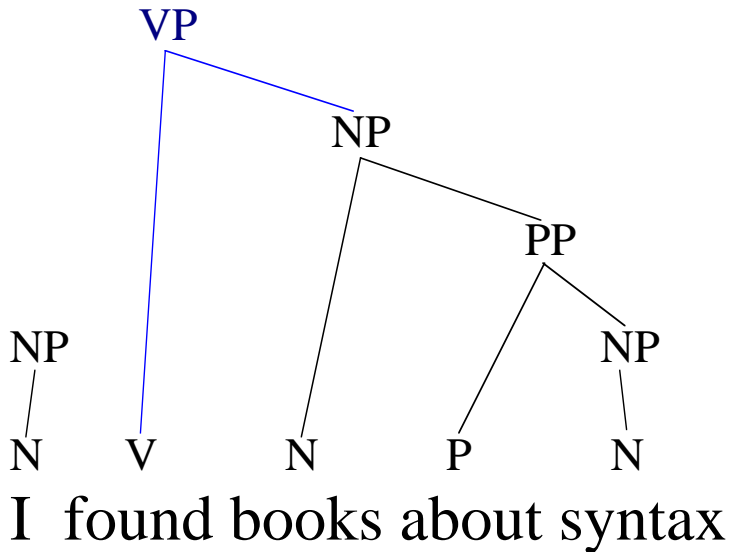
PP--> P (NP)

VP--> V (NP) (PP)

NP--> (Det) (Adj) N (PP)

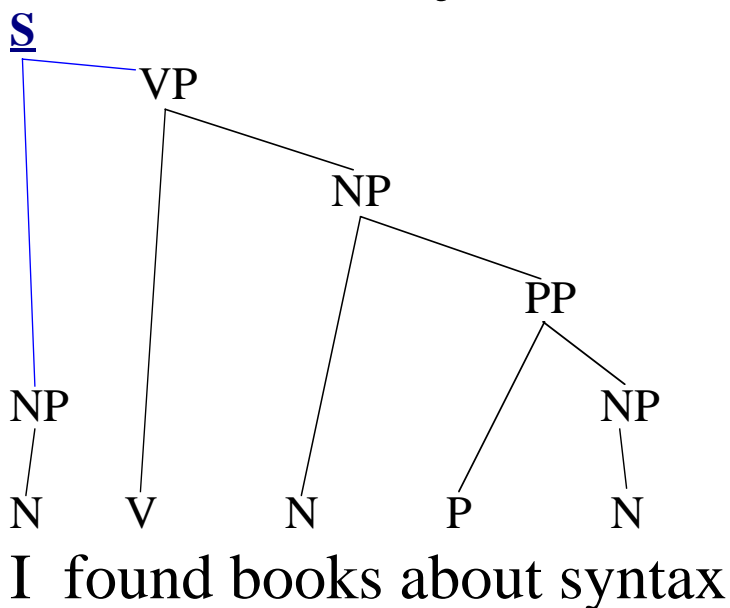


$PP \rightarrow P (NP)$
 $VP \rightarrow V (NP) (PP)$
 $NP \rightarrow (Det) (Adj) N (PP)$



$PP \rightarrow P (NP)$
 $VP \rightarrow V (NP) (PP)$
 $NP \rightarrow (Det) (Adj) N (PP)$

$S \rightarrow NP VP$



toy grammar of English:

S--> NP VP

NP--> (Det) (Adj) N (PP)

VP--> V (NP) (PP)

PP--> P (NP)

N={book, syntax, beard...}

V={find, read, grow...}

P={on, about, under...}

recursion:

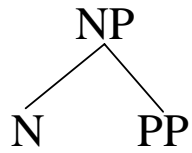
NP--> (Det) (Adj) N (PP)

PP--> P (NP)

recursion:

NP--> (Det) (Adj) N (PP)

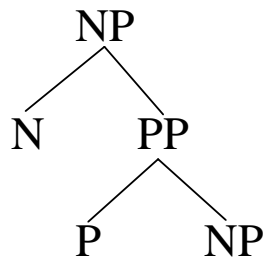
PP--> P (NP)



recursion:

NP--> (Det) (Adj) N (PP)

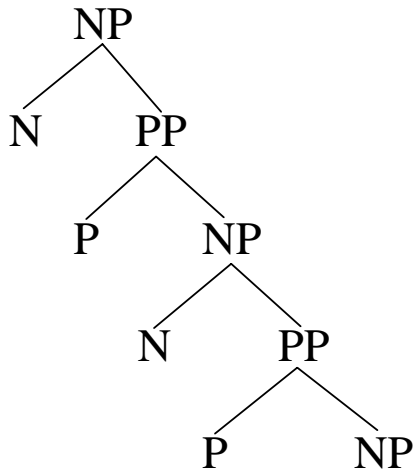
PP--> P (NP)



recursion:

NP--> (Det) (Adj) N (PP)

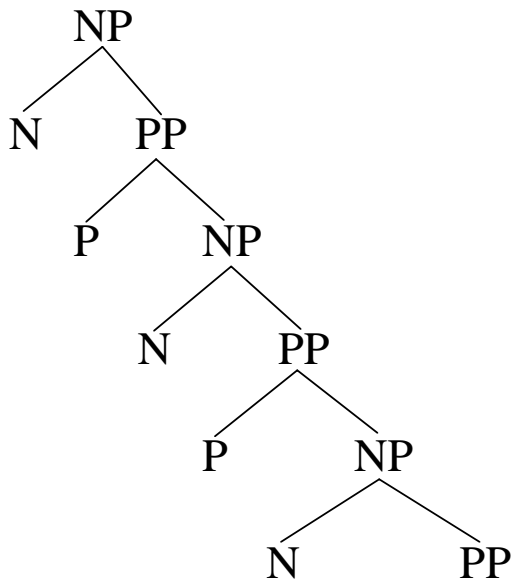
PP--> P (NP)



recursion:

NP--> (Det) (Adj) N (PP)

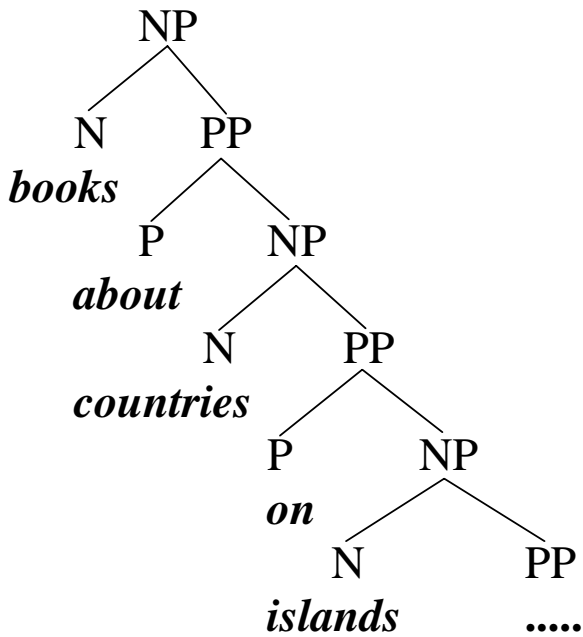
PP--> P (NP)



recursion:

NP--> (Det) (Adj) N (PP)

PP--> P (NP)



competence vs. performance:

You couldn't actually utter an infinitely long noun phrase, but your grammar is capable of producing one.

ambiguity

I shot an elephant in my pajamas.

ambiguity

I shot an elephant in my pajamas.

...how he got in my pajamas, I'll never know.

--Groucho Marx, *Animal Crackers*

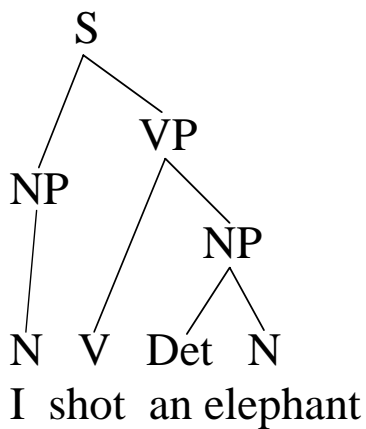
ambiguity

S--> NP VP

NP--> (Det) (Adj) N (PP)

VP--> V (NP) (PP)

PP--> P (NP)



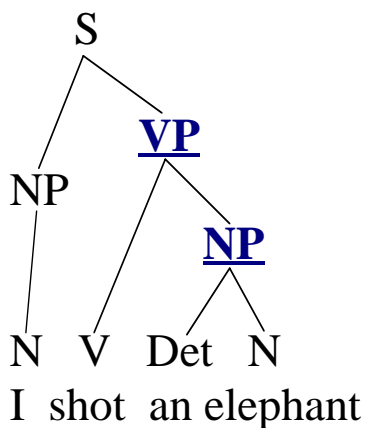
ambiguity

S--> NP VP

NP--> (Det) (Adj) N (PP)

VP--> V (NP) (PP)

PP--> P (NP)



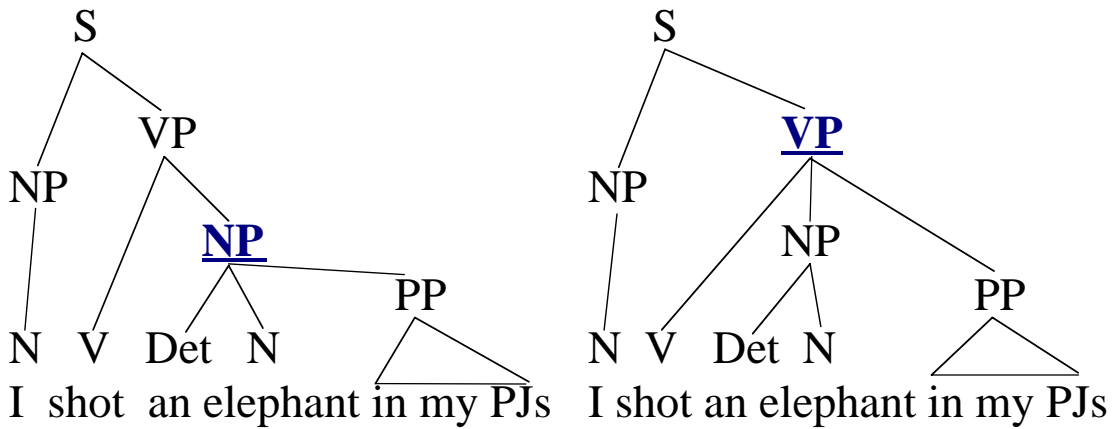
ambiguity

S--> NP VP

NP--> (Det) (Adj) N **(PP)**

VP--> V (NP) **(PP)**

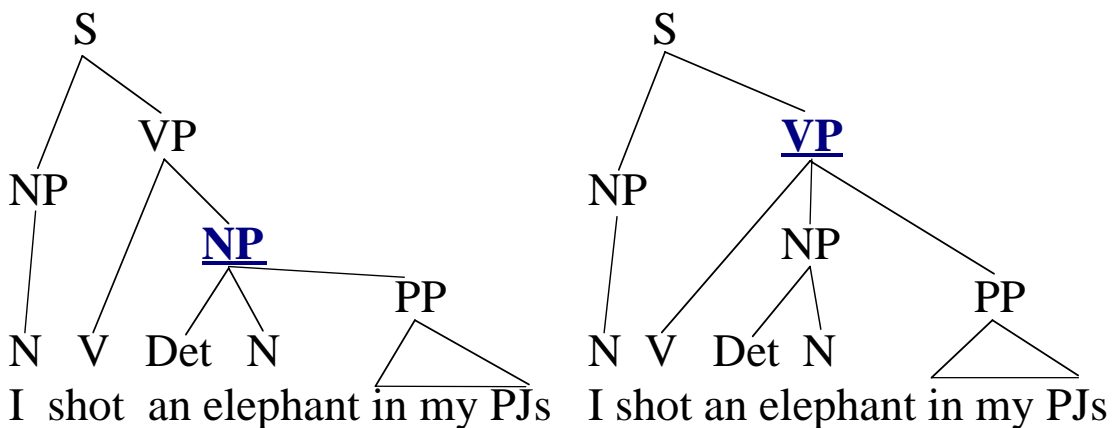
PP--> P (NP)



ambiguity

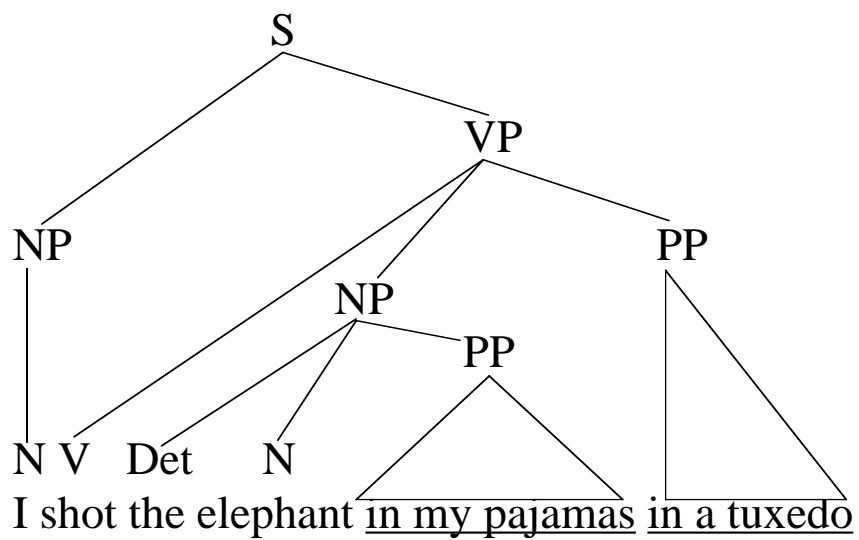
[the elephant], I shot in my pajamas.

[the elephant in my pajamas], I shot.



I shot the elephant in my pajamas in a tuxedo

I shot the elephant in my pajamas in a tuxedo

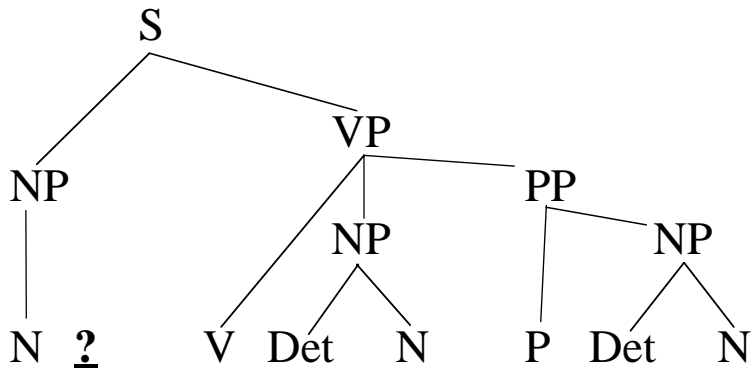


S--> NP VP

NP--> (Det) (Adj) N (PP)

VP--> V (NP) (PP)

PP--> P (NP)



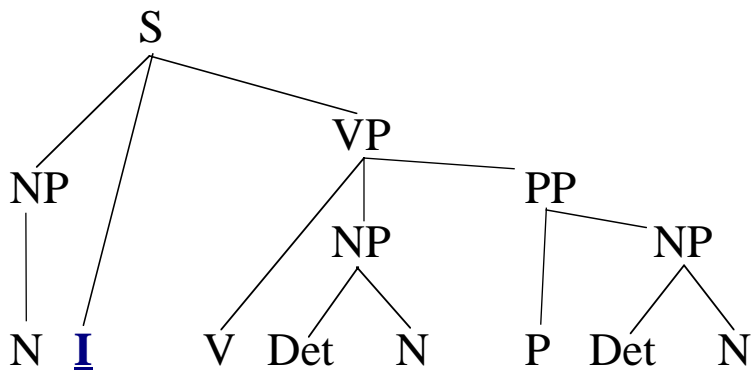
I will put the book on the table

S--> NP I VP

NP--> (Det) (Adj) N (PP)

VP--> V (NP) (PP)

PP--> P (NP)



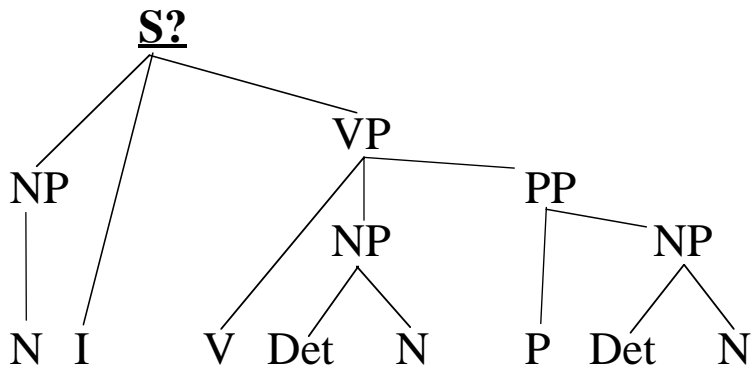
I will put the book on the table

S?--> NP I VP

NP--> (Det) (Adj) N (PP)

VP--> V (NP) (PP)

PP--> P (NP)



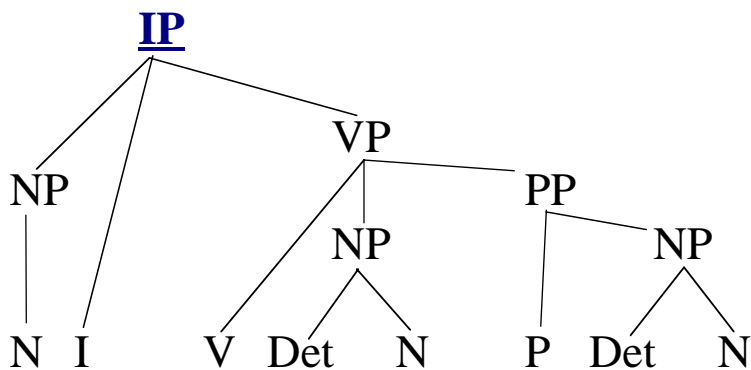
I will put the book on the table

IP--> NP I VP

NP--> (Det) (Adj) N (PP)

VP--> V (NP) (PP)

PP--> P (NP)



I will put the book on the table