# Syntax

# Remember morphology?

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*unlockable*

"able to be unlocked"          "not able to be locked"

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*able* combines with verbs to make adjectives
        (*singable, understandable…*)

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two *un*'s:
     $un^1$ combines with verbs to make verbs (*untie, undo*)

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*able* combines with verbs to make adjectives
　　　(*singable, understandable…*)
two *un*'s:
　　　$un^1$ combines with verbs to make verbs (*untie, undo*)
　　　$un^2$ combines with adjectives to make adjectives
　　　　　(*unkind, unfamiliar*)

Remember morphology?

*unlockable*

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*able* combines with verbs to make adjectives
        (*singable, understandable…*)
two *un*'s:
        $un^1$ combines with verbs to make verbs (*untie, undo*)
        $un^2$ combines with adjectives to make adjectives
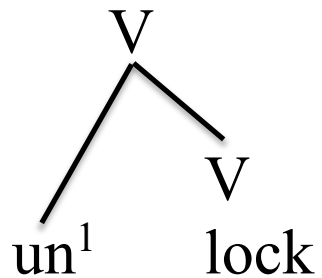        (*unkind, unfamiliar*)

➔ *able* will make a verb into an adjective, and you can add *un* either before or after adding *able*.

Remember morphology?

*unlockable*

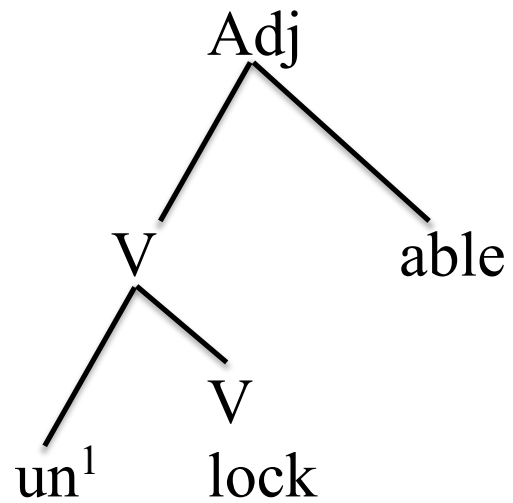"able to be unlocked"                "not able to be locked"

```
      V
     / \
    /   \
   /     V
  un¹   lock
```

V
/ \
un¹   V
lock
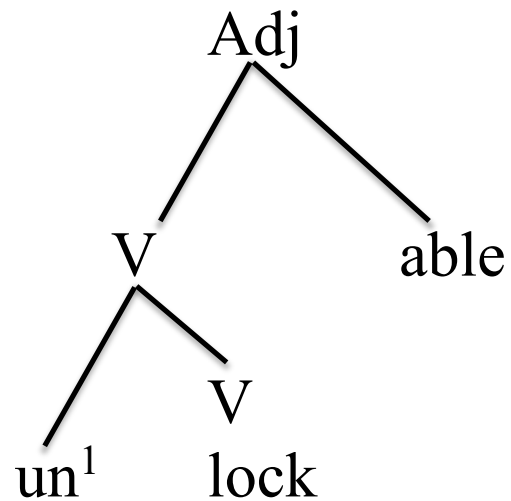
Remember morphology?

*unlockable*

"able to be unlocked"                    "not able to be locked"

```
                Adj
               /    \
              /      \
             V        able
            / \
           /   \
          /     V
        un¹     lock
```

Remember morphology?

*unlockable*

"able to be unlocked"                    "not able to be locked"

Adj
V            able
un[1]    V
lock

Adj
V        able
lock

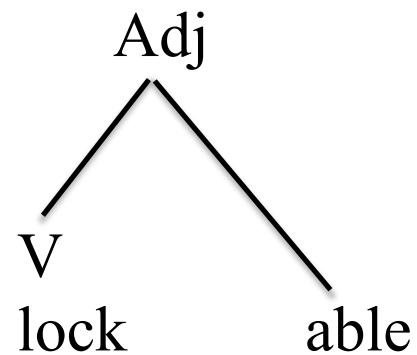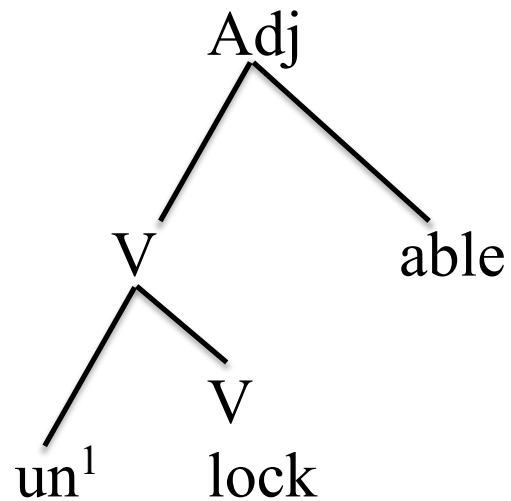Remember morphology?

*unlockable*

"able to be unlocked"                    "not able to be locked"

```
          Adj                              Adj
         /   \                            /   \
        V     able                     un²    Adj
       / \                                   /   \
     un¹   V                                V     able
           |                               / \
          lock                          lock
```

Adj
V  able
un¹  V
lock

Adj
un²  Adj
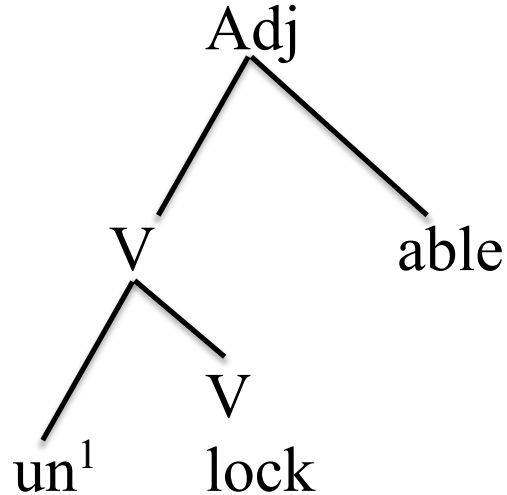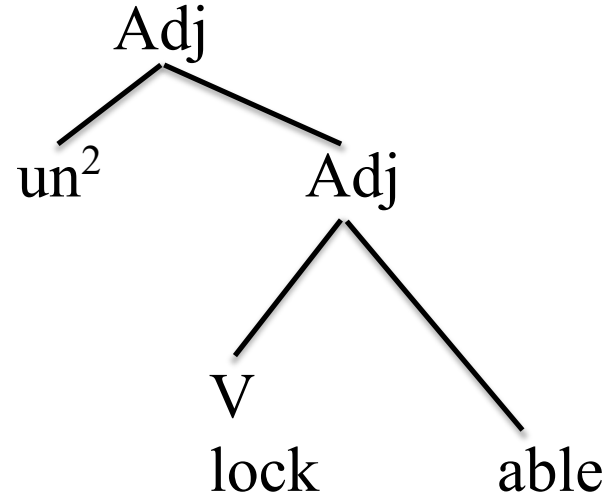V  able
lock

Remember morphology?

important part of this story: *unlockable* is not just three morphemes in a row. The morphemes were assembled in an order, and that order has consequences for interpretation.

"able to be unlocked"                    "not able to be locked"

```
        Adj
       /    \
      V      able
     / \
    /   \
  un¹    lock
```

```
         Adj
        /    \
      un²     Adj
             /    \
           V       able
          / \
         /   \
       lock
```

Left tree:
- Adj
  - V
    - un¹
    - lock
  - able

Right tree:
- Adj
  - un²
  - Adj
    - V
      - lock
    - able

Next up:  syntax, the study of how words are assembled into sentences.

We'll see that it's useful to think of sentences as being put together in more or less the same way as *unlockable*.

Syntax: study of how words are combined into sentences

|  | N | V | P | D | N |
|---|---|---|---|---|---|
| John | walked | up | the | stairs | |
| Mary | looked | up | the | reference | |

Syntax: study of how words are combined into sentences

|   | N | V | P | D | N |   |
|---|---|---|---|---|---|---|
| John | walked | [ up | the | stairs] | | **constituent** |
| Mary | looked | up | the | reference | |   |

Syntax: study of how words are combined into sentences

    **N**       **V**      **P**    **D**    **N**

John    walked  [ up    the    stairs]      ***constituent***

Mary  looked   up    the   reference

[up which stairs] did John walk?

*[up which reference] did Mary look?

John walked up the stairs.

       --Up the ***stairs***?!

Mary looked up the reference.

    *--Up the ***reference***?!

&rarr; there's more to a sentence than its parts

Syntax: study of how words are combined into sentences

We want a theory that divides sentences into:

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

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

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

"It doesn't mean anything"?

grammar isn't about meaning.

meaningless but grammatical:
Colorless green ideas sleep furiously.
*Furiously sleep ideas green colorless.

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"?

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

"It ends in a preposition"?

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

→ prescriptive/descriptive distinction

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

another useful distinction:

**competence** vs. **performance**

This is the…

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

another useful distinction:

**competence** vs. **performance**

It's raining.

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

another useful distinction:

**competence** vs. **performance**

John thinks that it's raining.

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

another useful distinction:

**competence** vs. **performance**

<span style="color:green">Mary thinks that</span> <span style="color:red">John thinks that</span> it's raining.
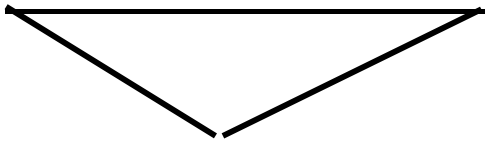
# What's wrong with "We're class going to"?

another useful distinction:

**competence** vs. **performance**

<span style="color:red">John thinks that</span> <span style="color:green">Mary thinks that</span> <span style="color:red">John thinks that</span> it's raining….

I will find the red book

I will find <u>the red book</u>

noun phrase:  syntax treats as a unit

- **topicalization:**

  **the red book**, I will find

# I will find <u>the red book</u>

**noun phrase**:  syntax treats as a unit

- **topicalization:**

  **<u>the red book</u>**, I will find

- **coordination:**

  I will find **<u>the red book</u>** and **<u>the blue pencils</u>**

I will find <u>the red book</u>

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

**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**
- **clefting**
  What I will find is **the red book**

# I will <u>find the red</u> book
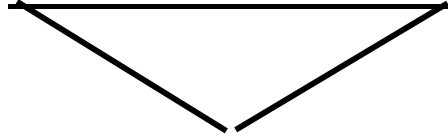
**<u>not a phrase:</u>**

- **topicalization:**

  *<u>**find the red**</u>, I will book

- **coordination:**

  *I will <u>**find the red**</u> and <u>**lose a blue**</u> book

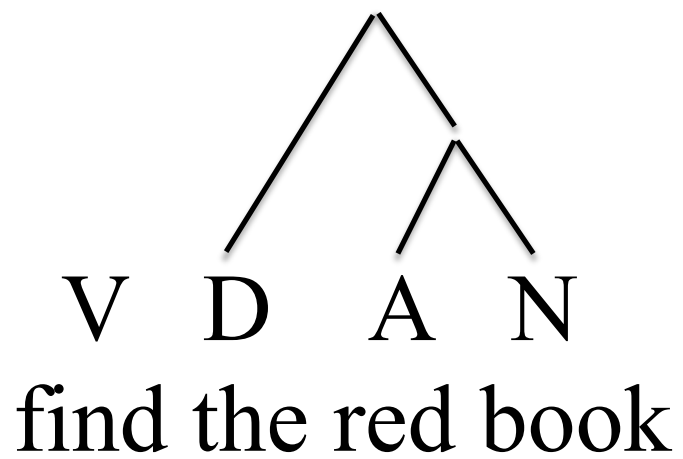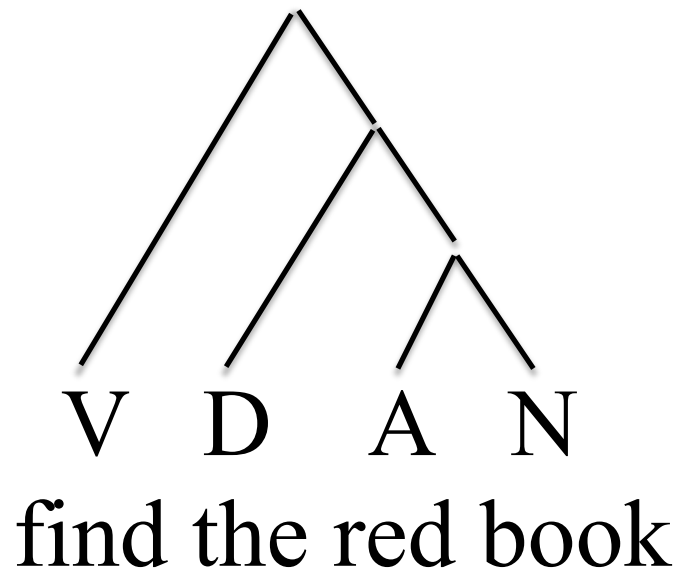- **possible answer to a question:**

  ???? --<u>**find the red**</u>
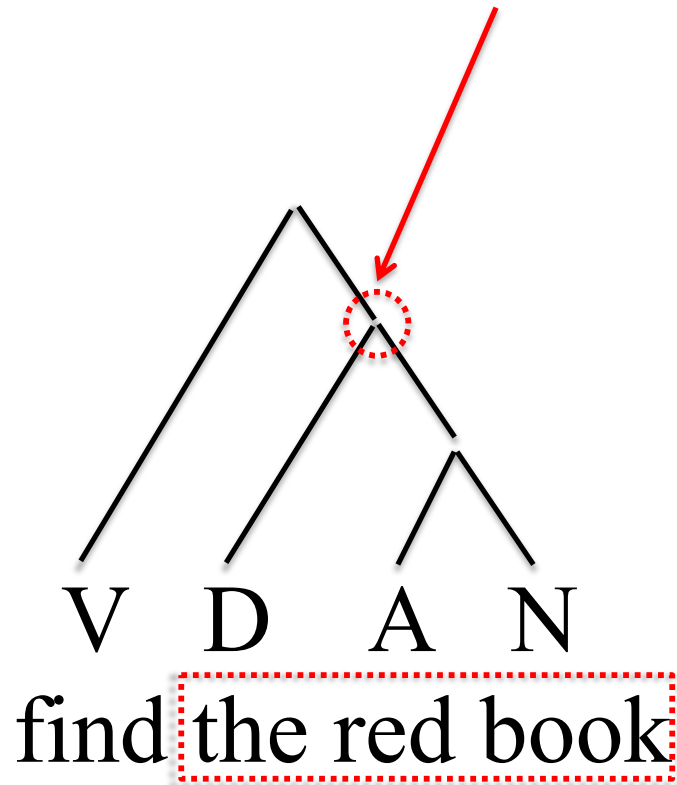
- **cleftin**
  *What I will… is <u>**find the red**</u>

V  D    A  N

find the red book

V D  A N

find the red book

V D A N

find the red book

V    D    A    N

find the red book

**the red book,** I will find

V D A N
find the red book

**the red book,** I will find

***find the red**, I will book

??

V  D  A  N
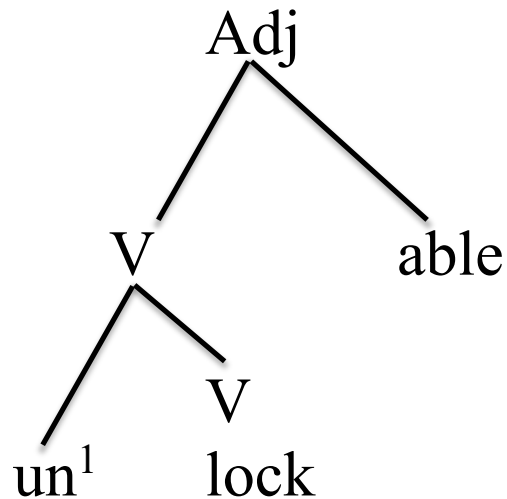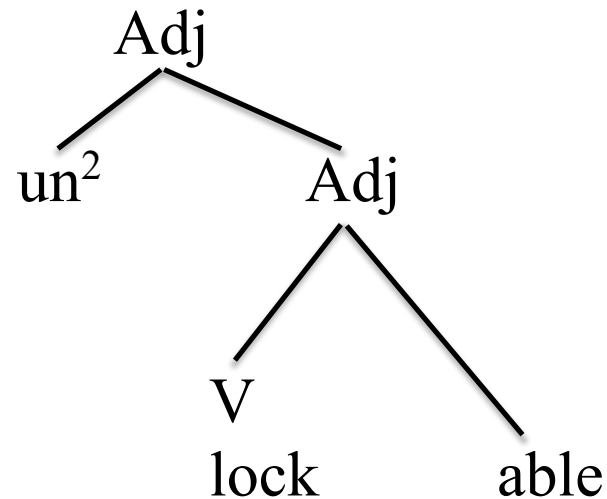
find the red book
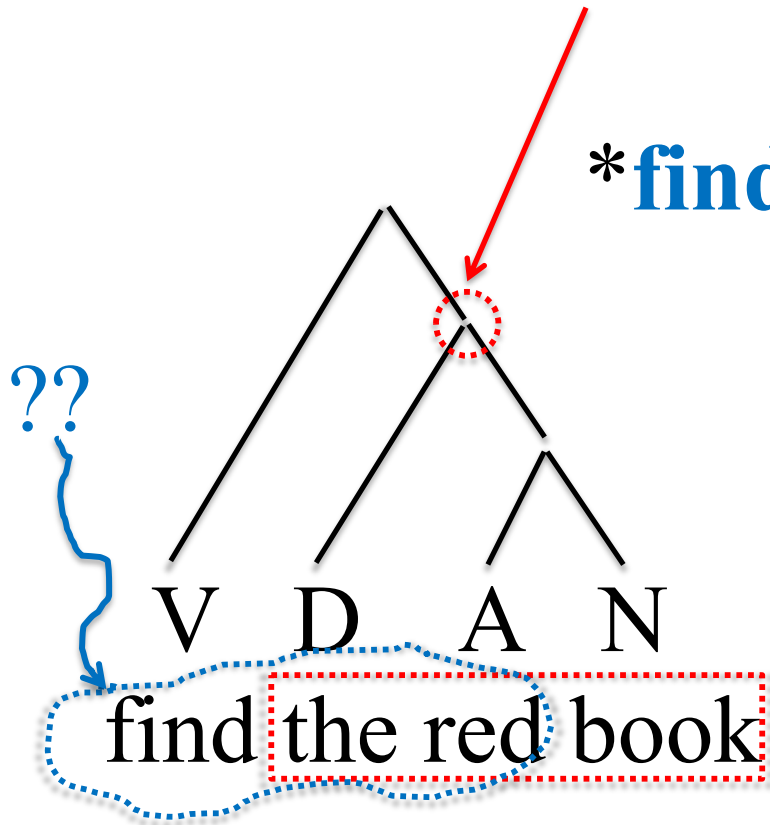
Back to morphology for a second…

We were using Merge to assemble pairs of things…and the objects
we were creating were new potential participants in Merge, with
their own labels. (V, Adj…).  We'll want to do something similar
for syntax.

"able to be unlocked"                    "not able to be locked"

```
          Adj                                  Adj
         /   \                                /    \
        V     able                         un²      Adj
       / \                                         /    \
     un¹  V                                        V      able
          lock                                    / \
                                               lock
```
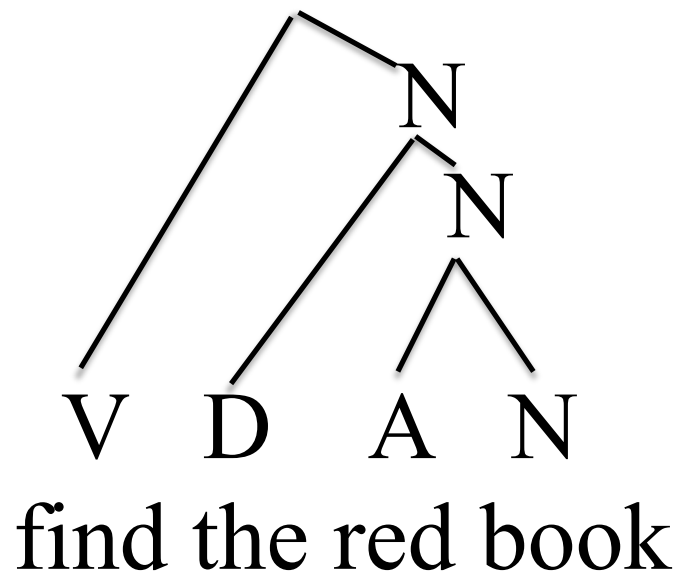
un$^1$   lock              un$^2$   lock   able

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

the important part is apparently the *noun*.

N
N
V D A N
find the red book

I will <u>find the red book</u>

## <u>verb phrase</u>

- **topicalization:**

    **<u>find the red book</u>**, I will

- **coordination:**

    I will **<u>find the red book</u>** and **<u>read it</u>**

- **possible answer to a question:**

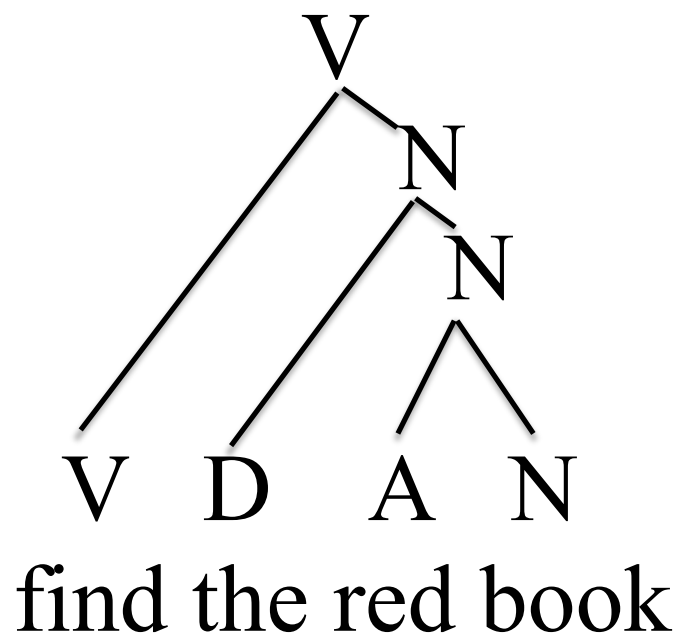    What will you do?  --**<u>find the red book</u>**

- **clefting**
    What I will do is **<u>find the red book</u>**

I will   <u>find the book</u>
          <u>find the book in the garage</u>
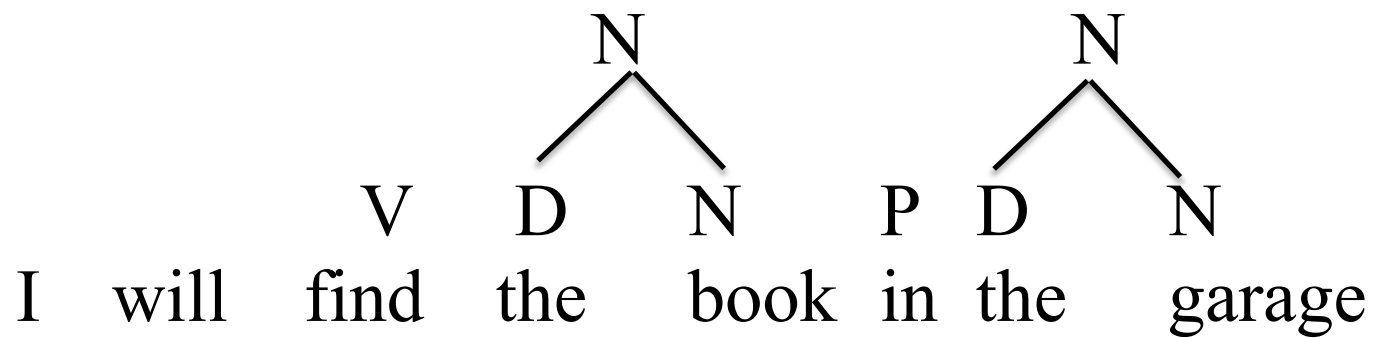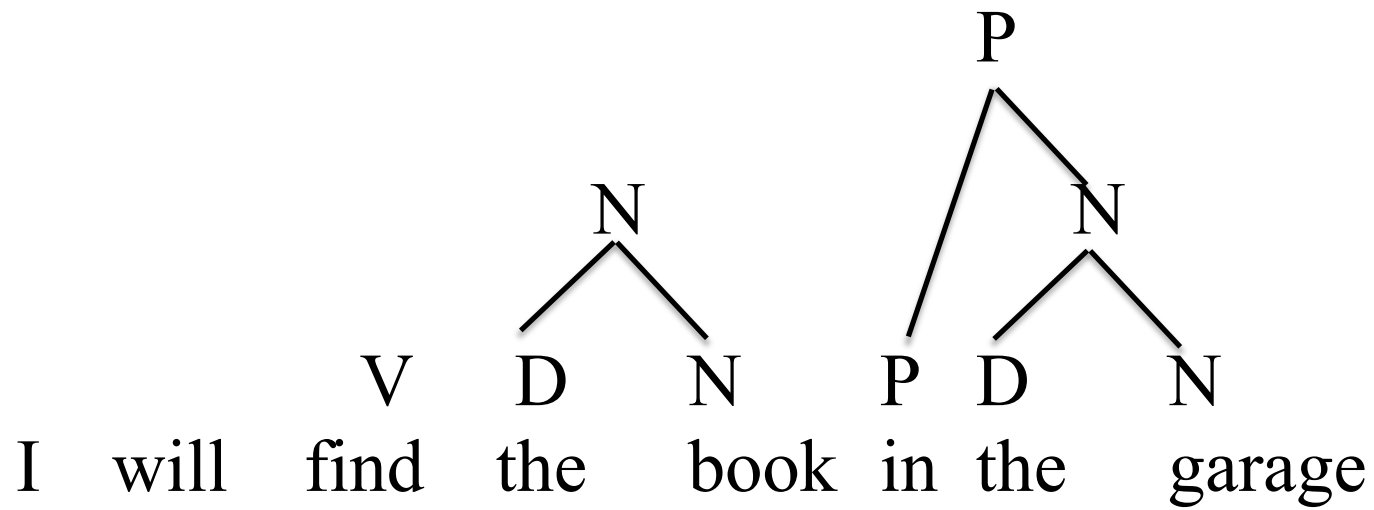          <u>leave</u>

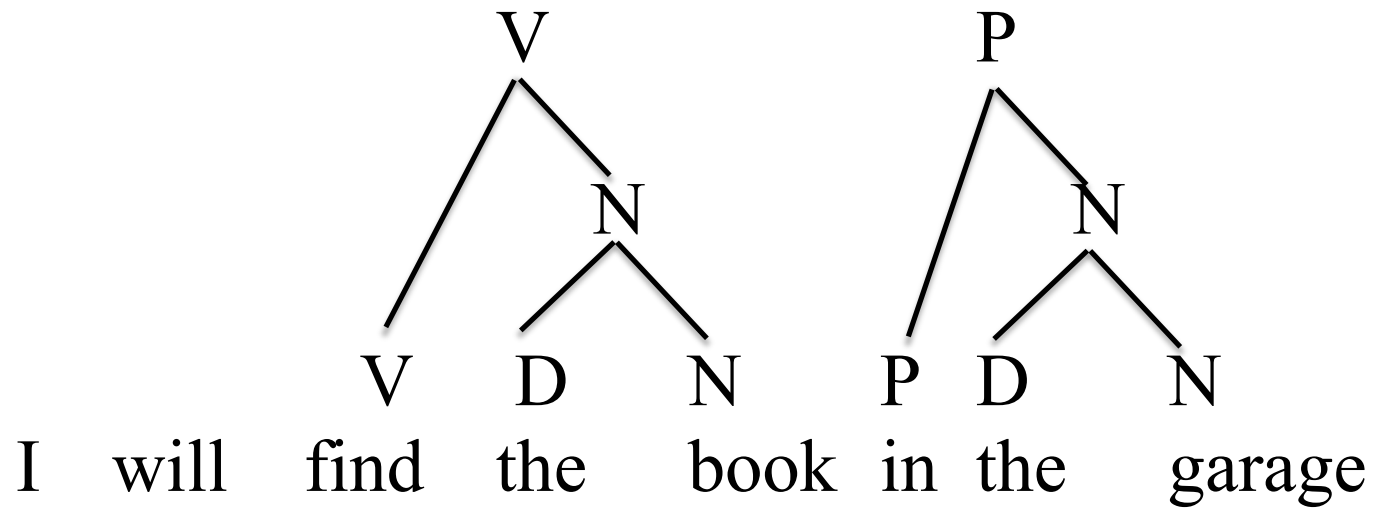here, the important part is the *verb*.

find the red book

I will find the book <u>in the garage</u>

**<u>prepositional phrase</u>**

(and: I will look <u>up</u>)

```
                        N                    N
                       / \                  / \
          V         D      N      P     D      N
      I  will  find  the     book  in   the      garage
```

```
                                          P
                                         / \
                 N                      /   N
                / \                    /   / \
          V    D   N        P    D        N
I  will  find  the  book  in  the      garage
```

```
                    V                              P
                          N                              N
              V       D        N        P    D          N
      I    will    find    the    book  in   the      garage
```

I will find the book in the garage

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