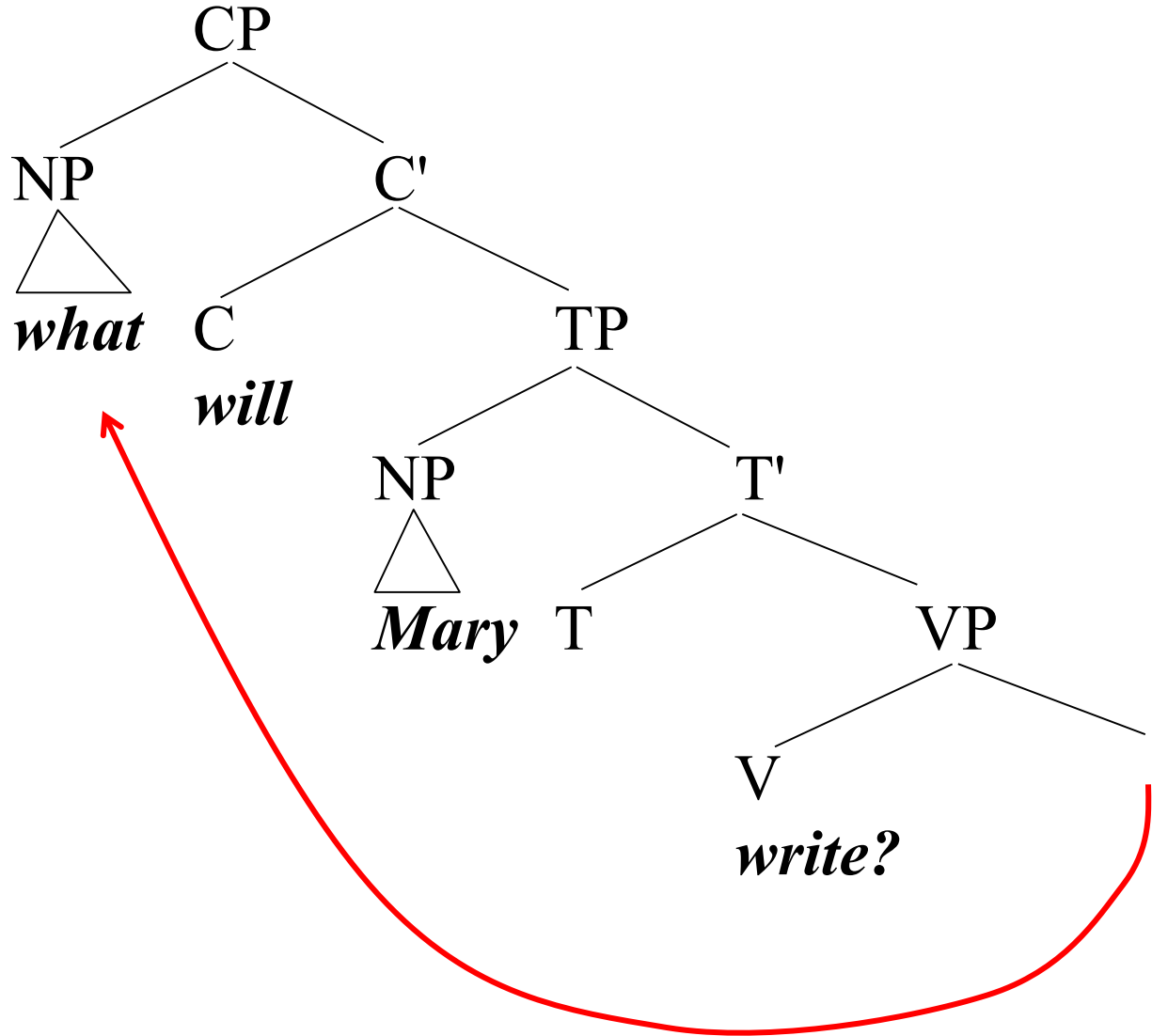# Syntax 5

wh-movement

What did you put ⎵ on the table?

Ano ang inilagay mo ⎵ sa lamesa?   [*Tagalog*]
what   put   you   on table

Mihin panen vaatteeni ⎵ ?   [*Finnish*]
where I.put   my.clothes

3

wh-in-situ

Zhangsan mai-le **sheme**?　　　　　　[*Chinese*]
Zhangsan bought what
'What did Zhangsan buy?'

Suu kɨ yuu **akə**?　　　　　　[*Bafut*]
Suu TNS buy what
'What did Suu buy?'

Ya um **hakiy** tuwa?　　　　　　[*Hopi*]
Q you who-ACC found
'Who did you find?'

4

rightward wh-movement: unattested?

___ häs ếāṭẹñ tħĕ çøøkɨêş **whö**?   [*no language ever*]

…easy to imagine, but may not exist…

rightward wh-movement: unattested?

To make this fact more interesting, let me first show you one other kind of cross-linguistic variation in wh-movement.

rightward wh-movement: unattested?

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rightward wh-movement: unattested?

There are languages in which wh-movement always involves some kind of *cleft* construction. It's as though you have to say:

What is the one that you bought?

instead of:

What did you buy?

rightward wh-movement: unattested?

There are languages in which wh-movement always involves some kind of *cleft* construction. It's as though you have to say:

What is the one that you bought?

e.g., Tagalog:

Ano ang binili mo?
what the bought you
'What did you buy?'
    (more literally, "What was the (one) that you bought?")

rightward wh-movement: unattested?

Now, imagine what a language would be like if it had clefting for its wh-questions, *and* wh-in-situ:

The one you bought was <u>what</u>?
The one that ate the meat was <u>who</u>?

rightward wh-movement: unattested?

Now, imagine what a language would be like if it had clefting for its wh-questions, *and* wh-in-situ:

The one you bought was <u>what</u>?
The one that ate the meat was <u>who</u>?

→ wh-words at the end of the sentence, not because of 'rightward wh-movement', but because of an in-situ clefting strategy.

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→ wh-words at the end of the sentence, not because of 'rightward wh-movement', but because of an in-situ clefting strategy.

Kabardian:
lʼə-r qʼa-z-šx̂ʷə-aɣ-r **x̂ət-r**
meat the.one.who.ate is.who   → 'who ate the meat?'

rightward wh-movement: unattested?

Language universal: there is no true wh-movement to the right (though there is wh-in-situ combined with obligatory clefting…)

multiple-wh

What did you give ___ **to whom**?

multiple-wh

What did you give __ **to whom**?

Kakvo **na kogo** e   dal __ __?   [*Bulgarian*]
what   to whom he-gave

Takhróri **úhka** **nahótʌ** __ wa'ehnínu' __   [*Mohawk*]
tell-me who   what   bought
'Tell me who bought what.'

unattested?

- movement of up to two wh-phrases

who what __ gave __ **to whom**?

Logical problem of language acquisition

$f(1)=1$
$f(2)=2$
$f(3)=3$
$f(4)=4$
$f(5)=??$

Logical problem of language acquisition

f(1)=1
f(2)=2
f(3)=3
f(4)=4
f(5)=**29**
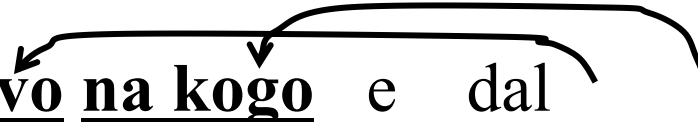
f(n)=(n-1)(n-2)(n-3)(n-4) + n

acquisition of wh-strategies

Kakvo na kogo e dal __ __?   *[Bulgarian]*
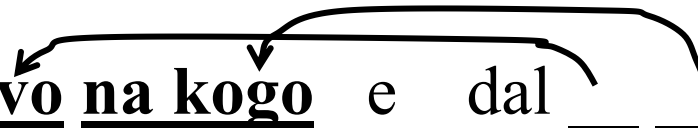what   to whom he-gave
'What did he give to whom?'

acquisition of wh-strategies

Kakvo na kogo   e   dal __ __?   [*Bulgarian*]
what   to whom he-gave
'What did he give to whom?'

- move all wh-phrases?
- move two wh-phrases?
- move up to three wh-phrases?
- move up to four wh-phrases?

        ...

acquisition of wh-strategies

Kakvo na kogo e dal __ __?   [*Bulgarian*]
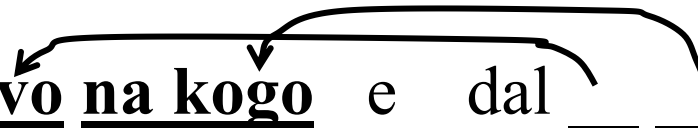what   to whom he-gave
'What did he give to whom?'

- **move all wh-phrases**
- move two wh-phrases?
- move up to three wh-phrases?
- move up to four wh-phrases?

         ...

acquisition of wh-strategies

Zhangsan mai-le **sheme**?   [*Chinese*]
Zhangsan bought what
'What did Zhangsan buy?'

acquisition of wh-strategies

Zhangsan mai-le **sheme**?   [*Chinese*]
Zhangsan bought what
'What did Zhangsan buy?'

- wh-in-situ?
- move wh-phrase to the right?
- make wh-phrase the third word?

        ....

acquisition of wh-strategies

Zhangsan mai-le **shenmo**?   [*Chinese*]
Zhangsan bought what
'What did Zhangsan buy?'

- **wh-in-situ**
- move wh-phrase to the right?
- make wh-phrase the third word?
        ....

projection principle revisited:

The phrase(s) selected by a head must be its sister(s).

I devoured **the kumquats**
I put **the kumquats** **in a bowl**
*He fainted **the idea**
*He devoured

What happens when a head doesn't select for a sister?

....well, then it doesn't have a sister.

He fainted.

Notice, however, that there's nothing comparable in subject position.

*Rained.
It rained.

Notice, however, that there's nothing comparable in subject position.

*Rained.
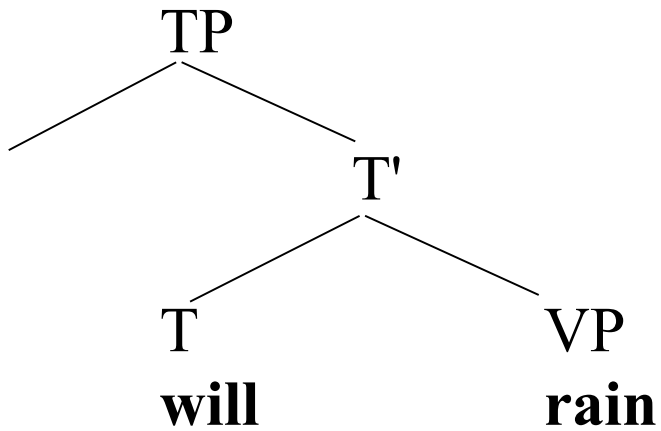**It** rained.
*Seems that John has died.
It seems that John has died.

These **__it__**s don't seem to be ordinary ones...

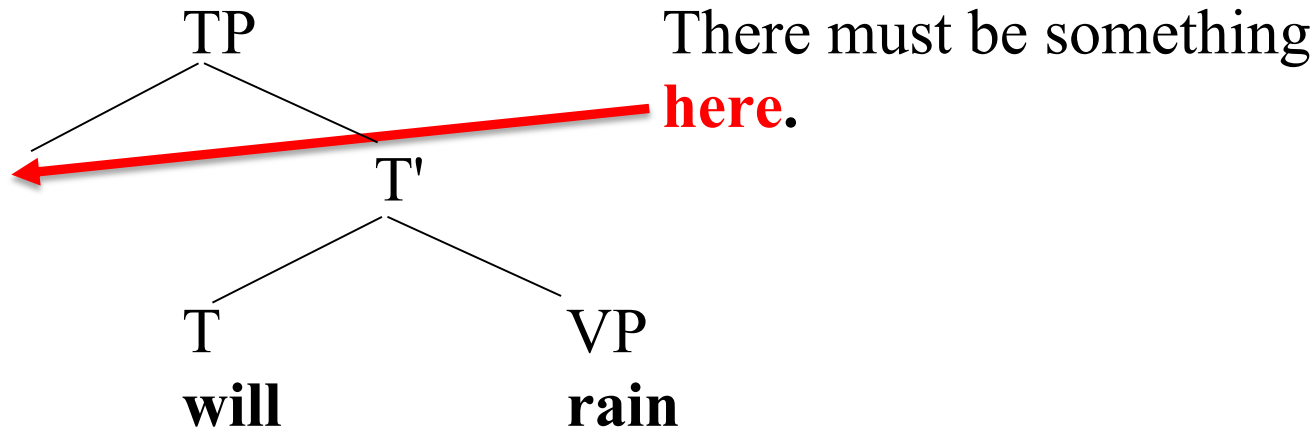**It** squeezed John.
It seems that John has died.

Extended projection principle:

```
        TP
       /  \
          T'
         /  \
        T    VP
       will  rain
```

Extended projection principle:

TP

```
         TP
        /  \
       /    T'
      /    /  \
     /    T    VP
         will  rain
```

There must be something
here.

Extended projection principle:

TP   There must be something
         here.

   T'

 T   VP
 will   **rain**
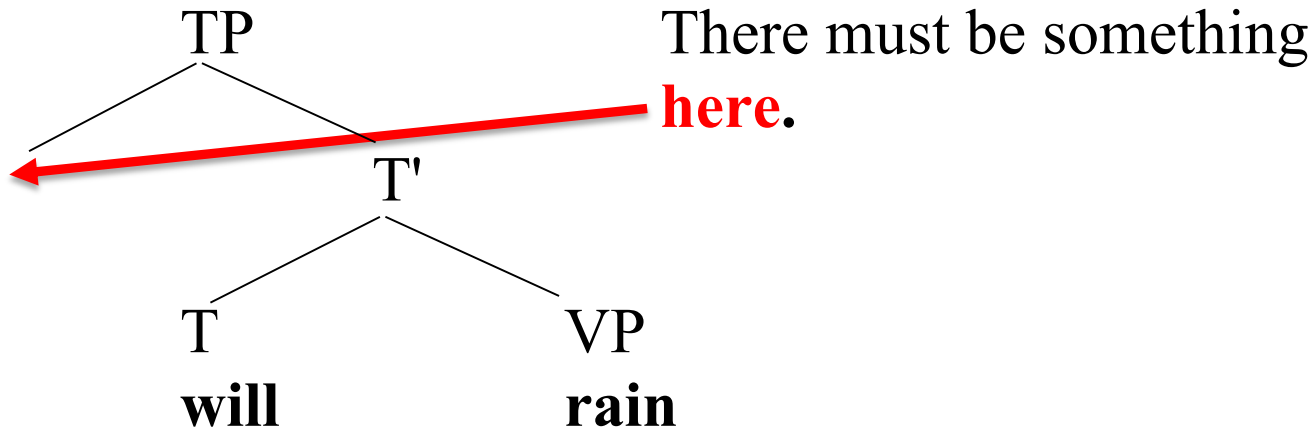
"*Specifier* of TP"
 (daughter of maximal projection, not (necessarily?) selected)

(...if there's nothing else to satisfy the Extended Projection Principle with, you can insert an **<u>expletive</u>** like **it**--which doesn't mean anything, but allows you to satisfy the EPP)

Another use for the Extended Projection
Principle?

The snake squeezed John.
John was squeezed.

I put the kumquats in a bowl.
The kumquats were put in a bowl.

Another use for the Extended Projection Principle?

The snake squeezed John.
John was squeezed.

I put the kumquats in a bowl.
The kumquats were put in a bowl.

-->same reasoning that prompted us to posit wh-movement leads us to suspect movement here...

start:

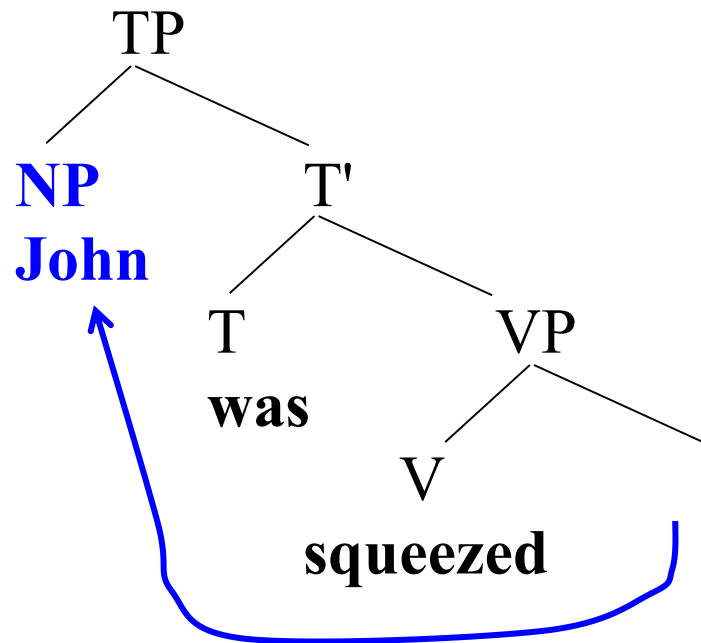was squeezed John

EPP forces movement:

was squeezed **John**

finish:

John was squeezed

NP-movement:
a new kind of movement, driven by the EPP.

TP
NP John
T'
T was
VP
V squeezed

NP-movement:
a new kind of movement, driven by the EPP.

another instance of NP-movement:

It seems [that John is sick]

John seems ___ to be sick

another argument for NP-movement: **<u>idioms</u>**

- lots of V-XP idioms:

kick the bucket	'die'
buy the farm	'die'
spill the beans	'reveal a secret'
yawn in Technicolor	'vomit'

- ...but there are no XP-V idioms:
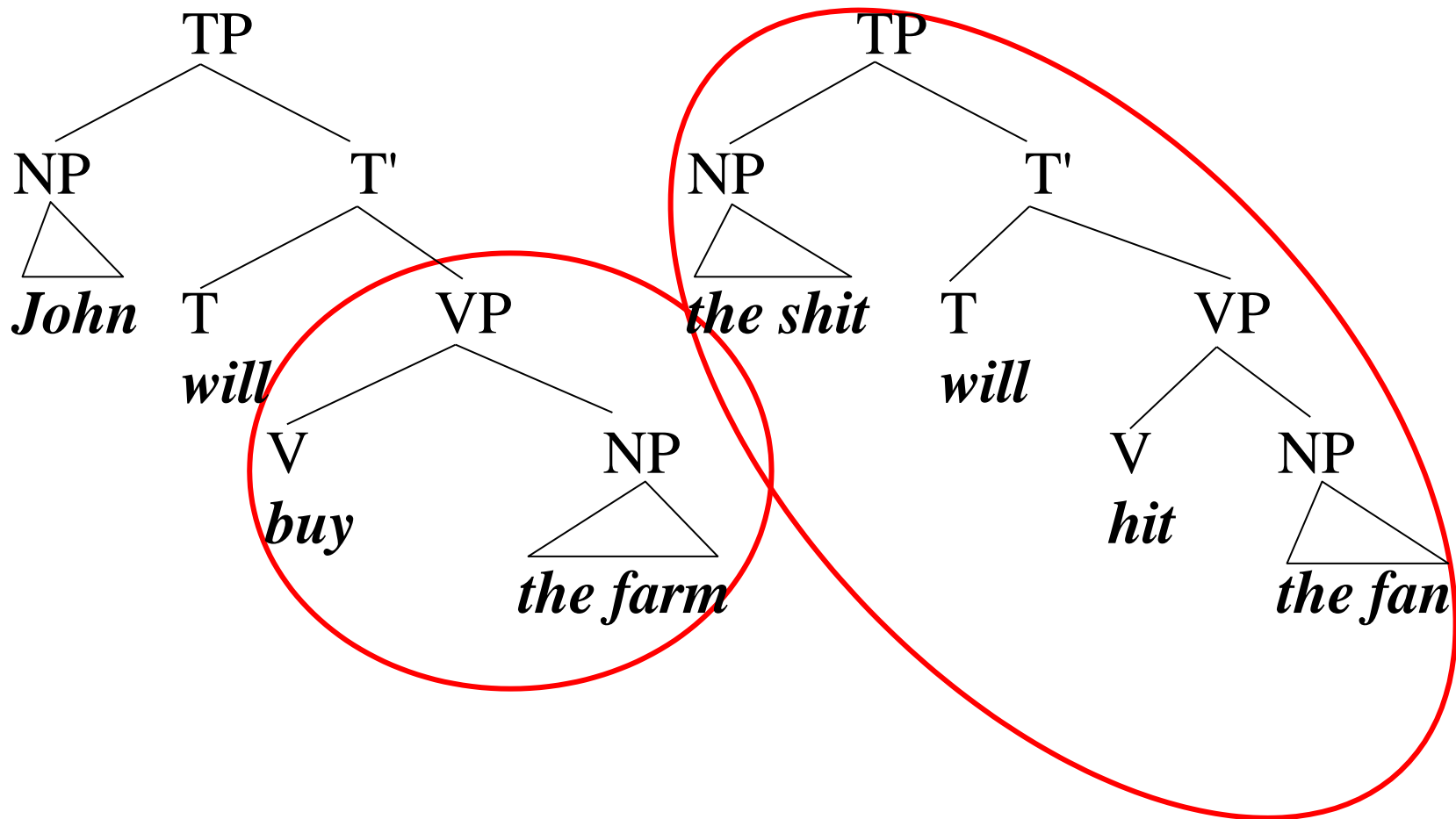
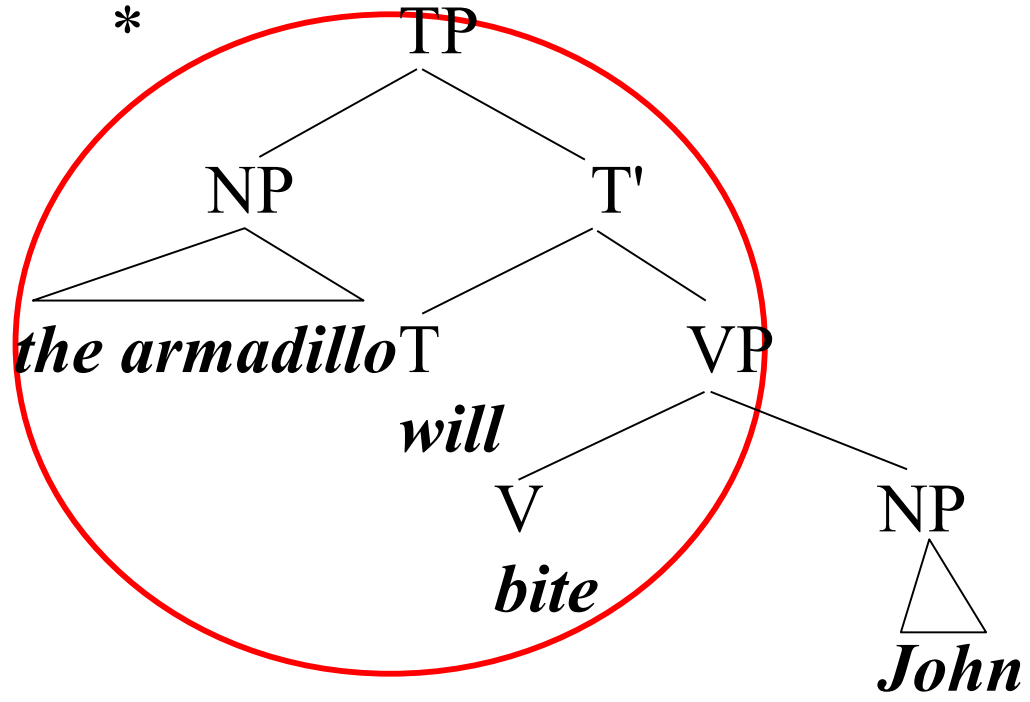 ***the armadillo bit...***

- ...but there are no XP-V idioms:

  the armadillo bit...

- this isn't because subject can't be part of an idiom:

  the cat is out of the bag
  the shit will hit the fan

TP
- NP
  - *John*
- T'
  - T
    - *will*
  - VP
    - V
      - *buy*
    - NP
      - *the farm*

TP
- NP
  - *the shit*
- T'
  - T
    - *will*
  - VP
    - V
      - *hit*
    - NP
      - *the fan*

*

TP
├── NP
│   └── *the armadillo*
└── T'
    ├── T
    │   └── *will*
    └── VP
        ├── V
        │   └── *bite*
        └── NP
            └── *John*

43

*

```
                    TP
              ╱          ╲
           NP              T'
          ╱  ╲           ╱    ╲
   the armadillo  T        VP
                 will     ╱    ╲
                        V       NP
                      bite      ╱╲
                              John
```
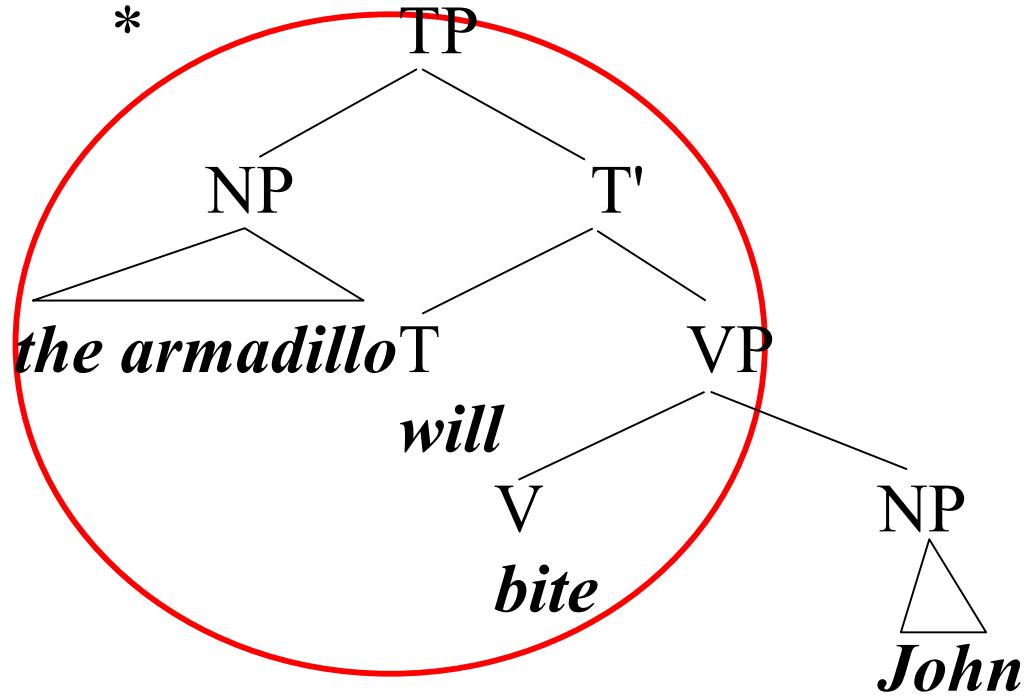
-->idioms must be **constituents**.

so what about....

The shit hit the fan.

so what about....

The shit hit the fan.

The shit seemed to hit the fan.

so what about....

constituent

The shit hit the fan.

constituent?

The shit seemed to hit the fan.

The shit seemed to be likely to hit the fan.

constituent?!

-->idioms must be constituents **at the start.**

start

seemed [the shit to hit the fan]

NP-movement

seemed [**the shit** to hit the fan]

finish

the shit seemed [to hit the fan]