Wh-movement

movement of question phrases

Another Terminological Point

- A Movement is the same thing as DP movement
  - Subtypes: Passive, SSR, SOR, movement of subject from VP internal subject to spec, TP
- A’ (A-bar) Movement is the same thing as Wh-movement
  - Subtypes: Wh-movement, topicalization, relative clause formation

Two kinds of Questions

- Yes/No questions:
  - Did you see the octopus? yes/no /*dog
  - Have you eaten yet? yes/no /*apple
- Wh-questions
  - Who was here last week? Howard/*no
  - What do you have there? Nail clippers/*yes

Wh words

who
what
which X

Usually arguments

whose X

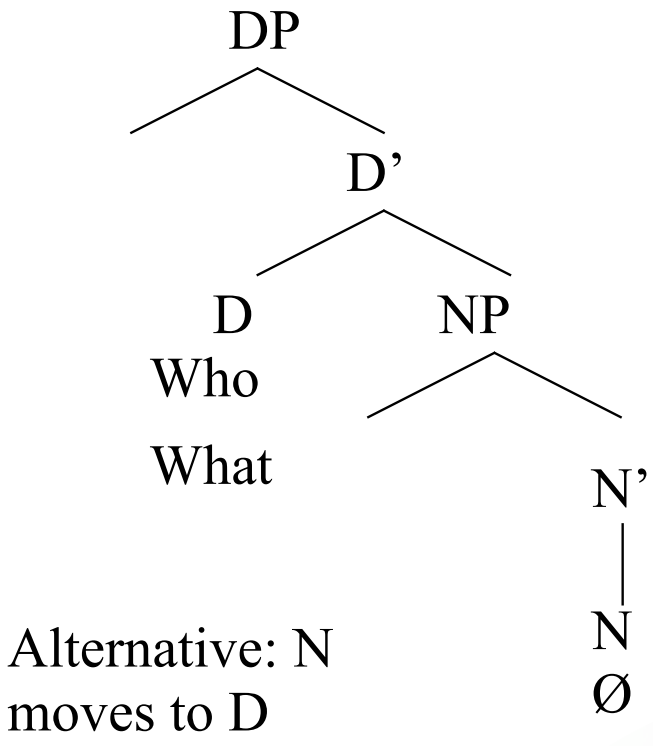
Can be either adjunct or argument

where
when
why
how

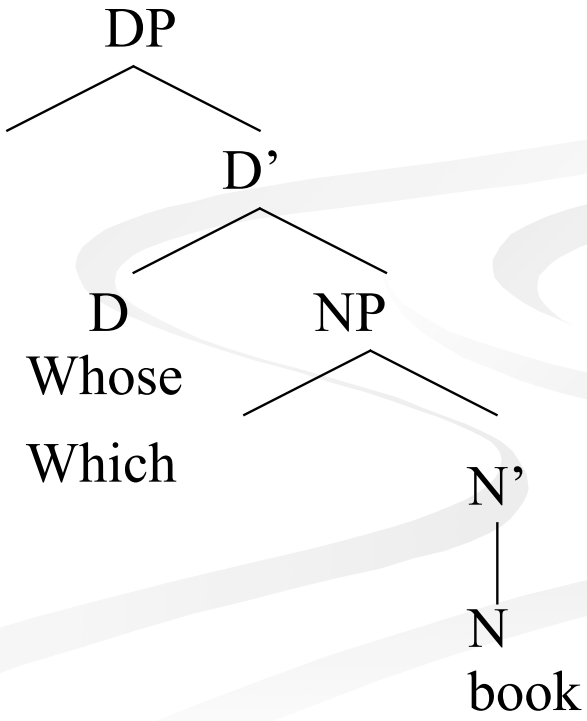
Usually adjuncts

Wh-phrases are what move

- We move wh-***phrases***,
- *Who, What, Which, Whose* are determiners:

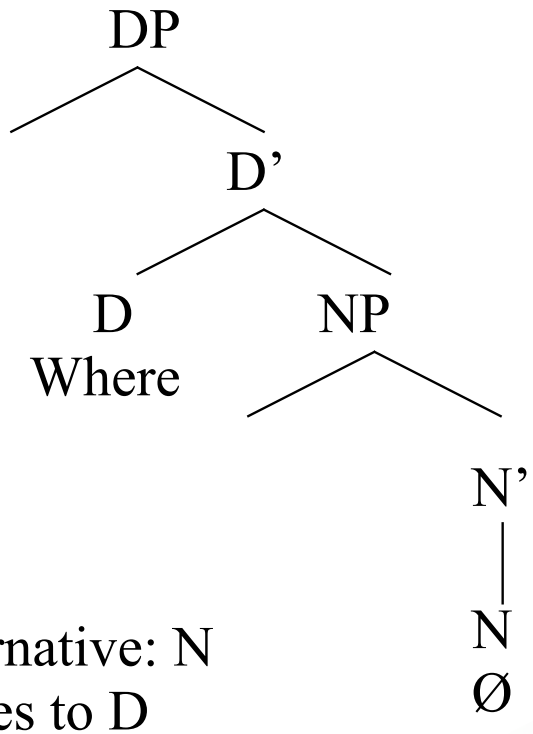


Alternative: N moves to D

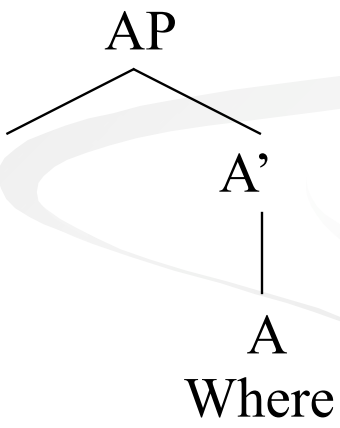


Wh-phrases are what move

- *Where* is sometimes a determiner
  - Where did John go to (cf. John went to school)
- And sometimes an Adverb
  - Where did John go (cf. John went home)

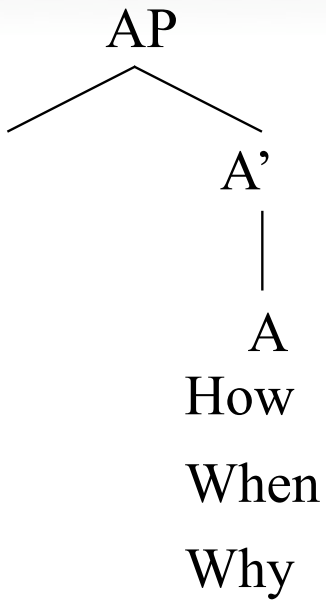


Alternative: N moves to D



Wh-phrases are what move

- *How, When, Why* are usually adverbs



REMEMBER:

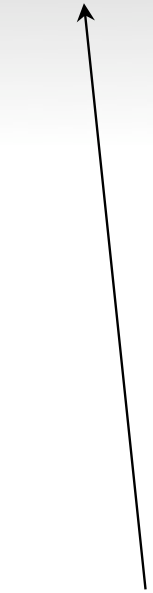
The ***whole*** phrase moves, not just the head

Wh-questions involve movement

- I bought a book
- What did you buy _____

Where from?

What did you say [_____ was hit _____]



Ends up here

gets case here

cf. the ball was hit

gets theta role here

cf. John hit the ball

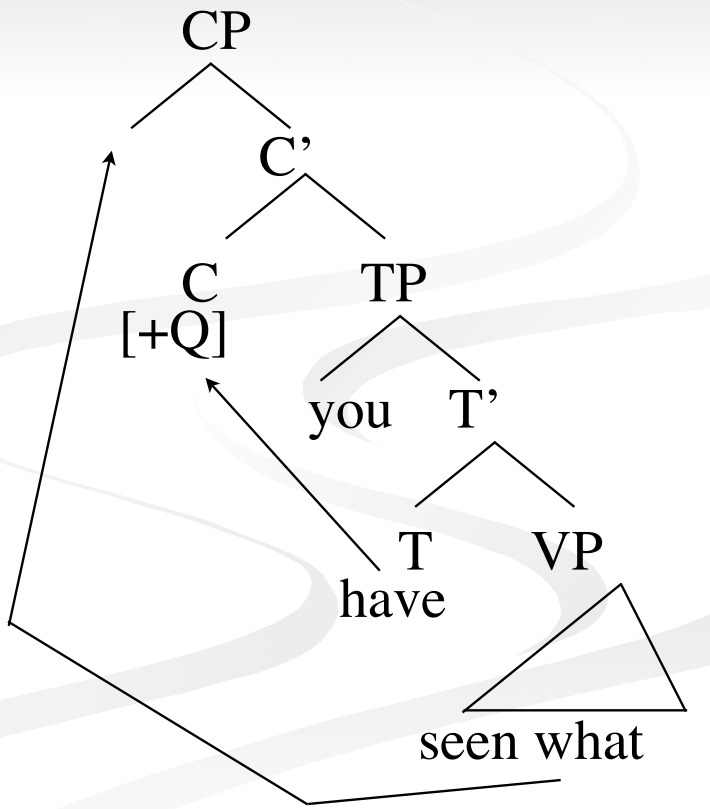
Where to?

What have you seen _____

subject aux inversion:

means Aux is in C

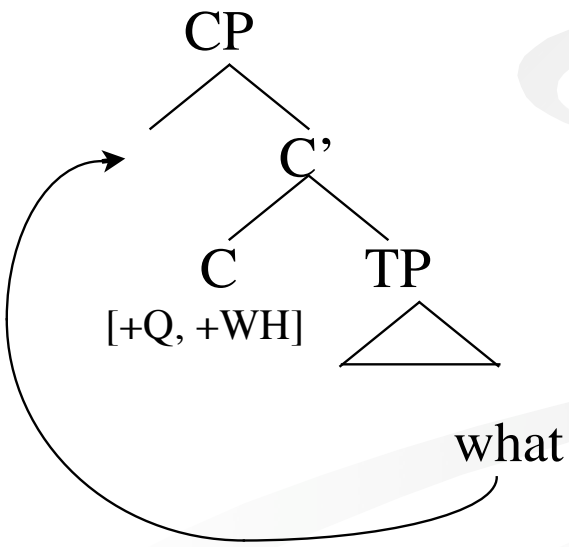
Wh-word precedes C --
specifier of CP



Why?

Movement of T to C is motivated by [+Q]

Proposal: there is a [+WH] feature in C, the *wh*-word must get close to it.



[+WH] Complementizers

Cé **a**^{L} bhí sa seomra?

Who that-wh was in-the room

“Who was in the room”

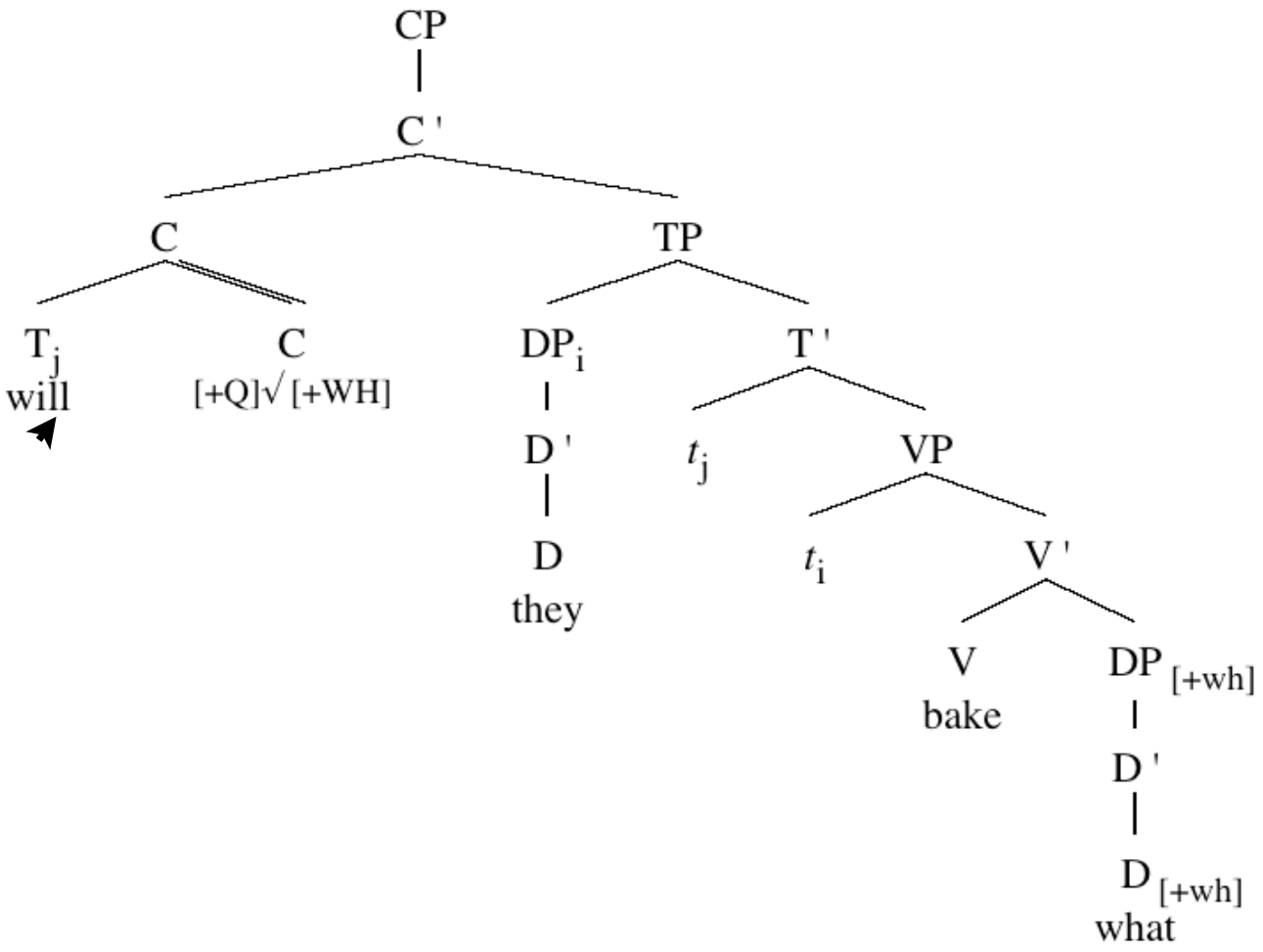
Motivations for movements

- *Head Movement:*
  - V to T (T to V) motivated by need of suffix
  - T to C motivated by null [+Q] C
- *NP movement*
  - Raising motivated by need for case
  - Passive motivated by need for case
- *Wh movement*
  - *wh*-questions motivated by need for wh-word to appear near [+wh] complementizer.

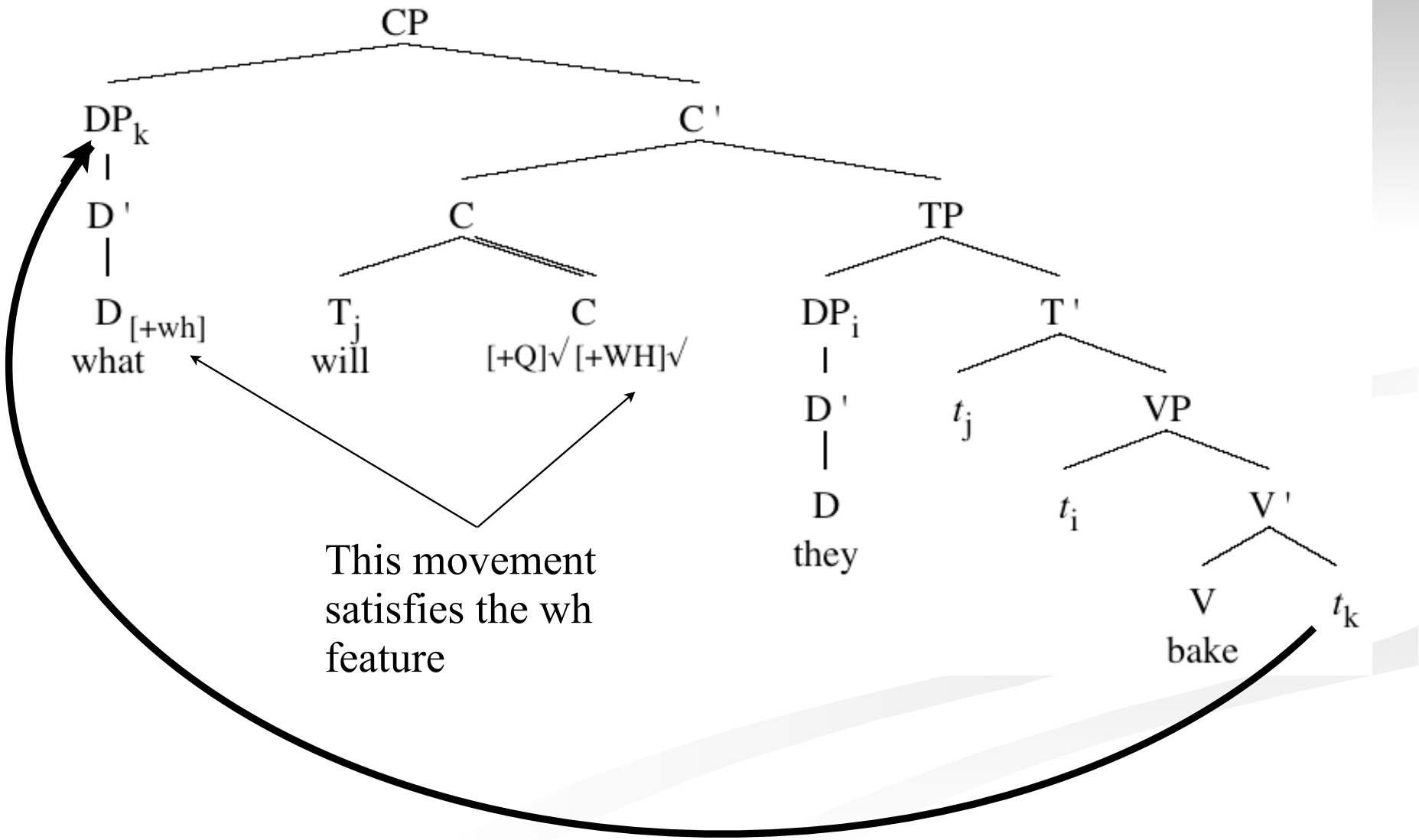
Wh-questions

- 1 thing to solve:
  - [+Q] C needs T
  - [+WH] C needs a [+wh] spec.

- ***Head*-movement** of *will* to C will check the Q feature



Wh-questions



Two weird English-specific constraints

- *Who that John left?
- *John asked who if Susan loved?

- English doesn't allow you to have both an overt complementizer (other than Aux) and a wh-word
- *The Doubly filled CP filter* (English only)
  - * [$_{CP}$ wh that]

Two weird English-specific constraints

- Who did John think that Susan loved ____?
- *Who did John think that ____ loved Susan?
- Who did John think Ø ____ loved Susan?

- can't wh-move from a position next to the word "that".
- *That-trace filter* (English only)
  - * that *t*

A Derivation

What did John say was baked?

Step 1. UNDO all the transformations to figure out the D-structure

1) T→C movement: What John did say was baked

2) Do insertion: What John -ed say was baked

Question: where did "What" start?

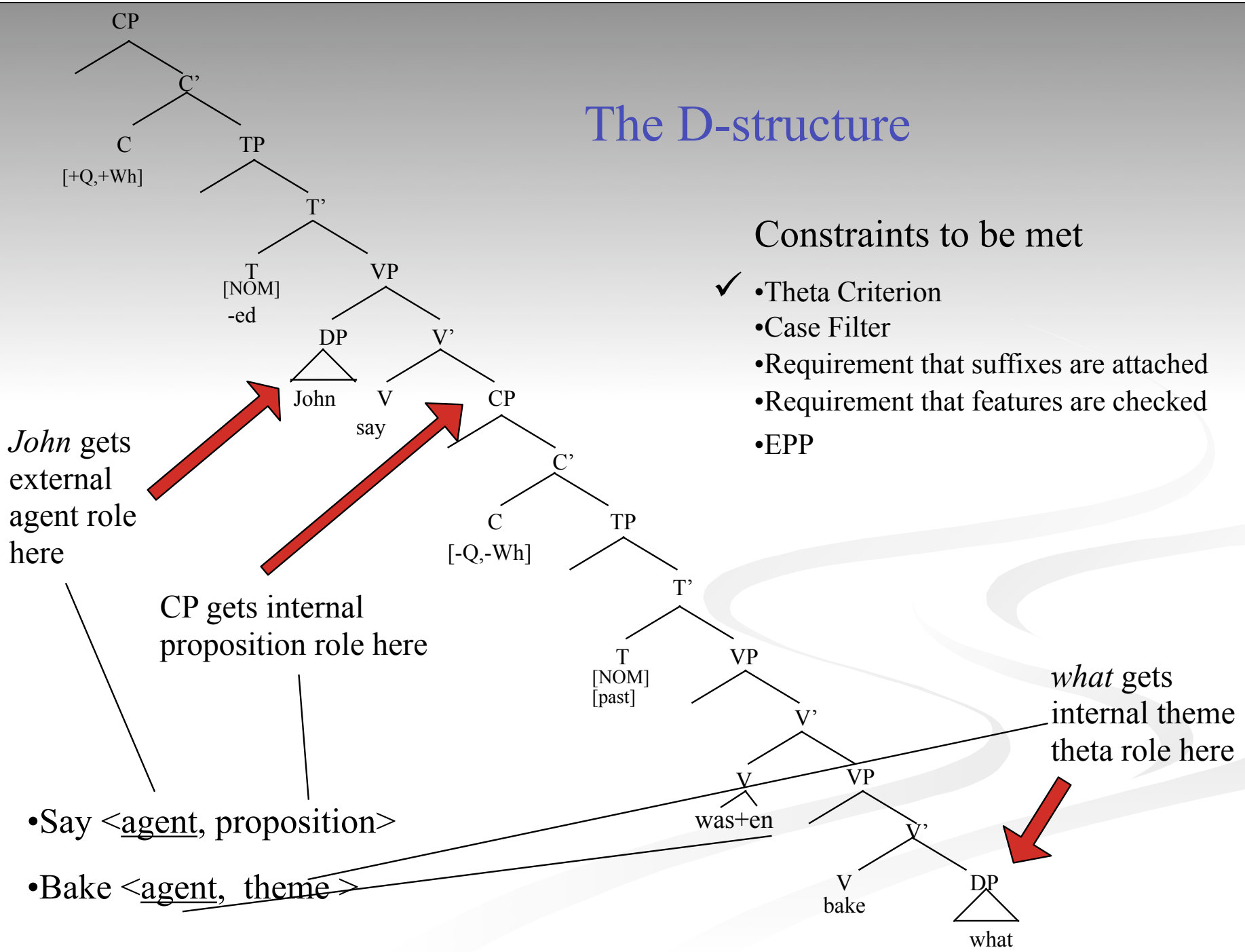
Notice: John said <u>the cake</u> was baked (passive in embedded clause)

3) Wh-movement: John -ed say what was baked

4) DP-movement: John -ed say was baked what

We are going to tree this string (4): *the D-structure*

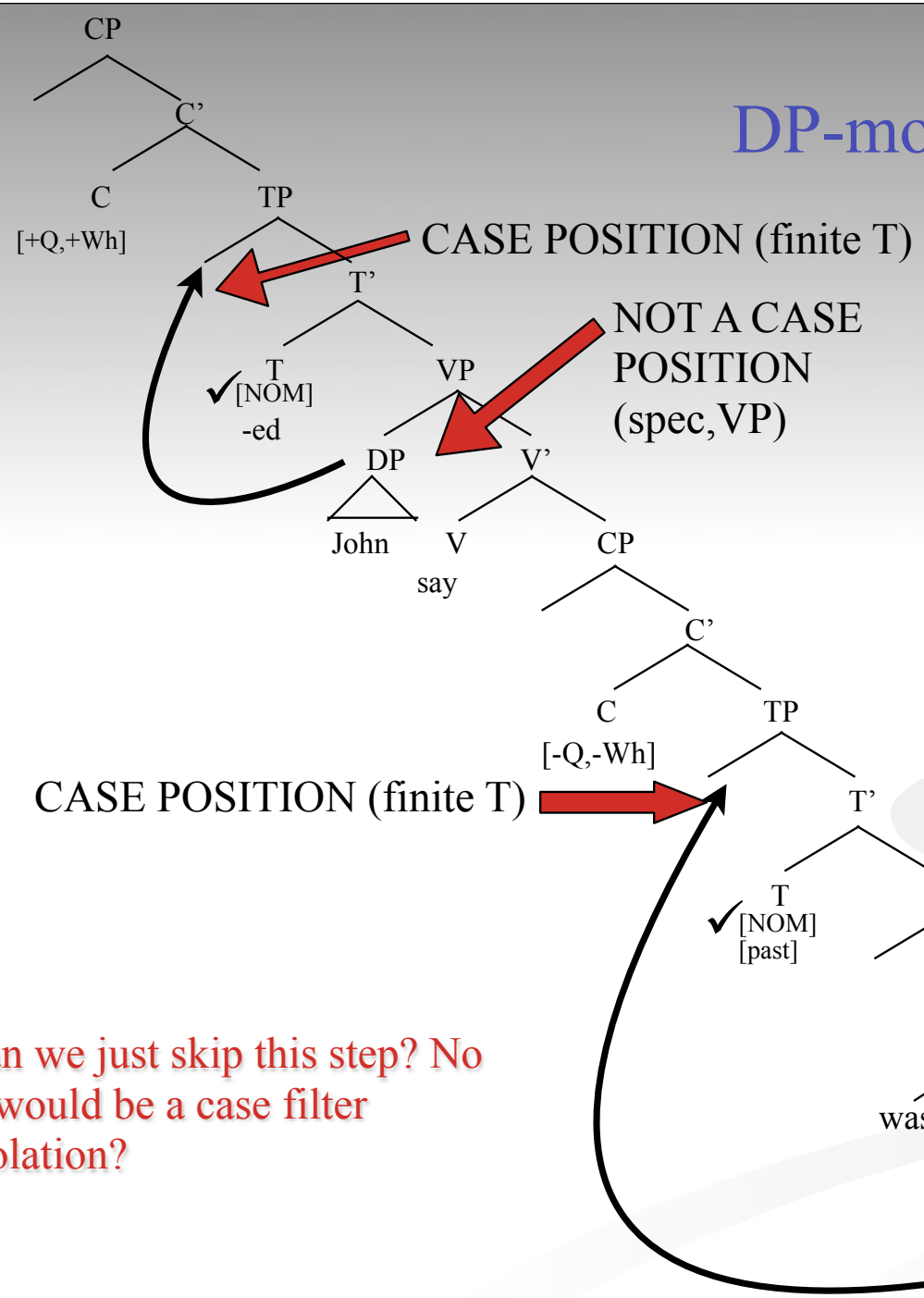
The D-structure



Constraints to be met

✓ •Theta Criterion
•Case Filter
•Requirement that suffixes are attached
•Requirement that features are checked
•EPP

DP-movement



Constraints to be met

- ✓ •Theta Criterion
- ✓ •Case Filter
- •Requirement that suffixes are attached
- •Requirement that features are checked
- •EPP

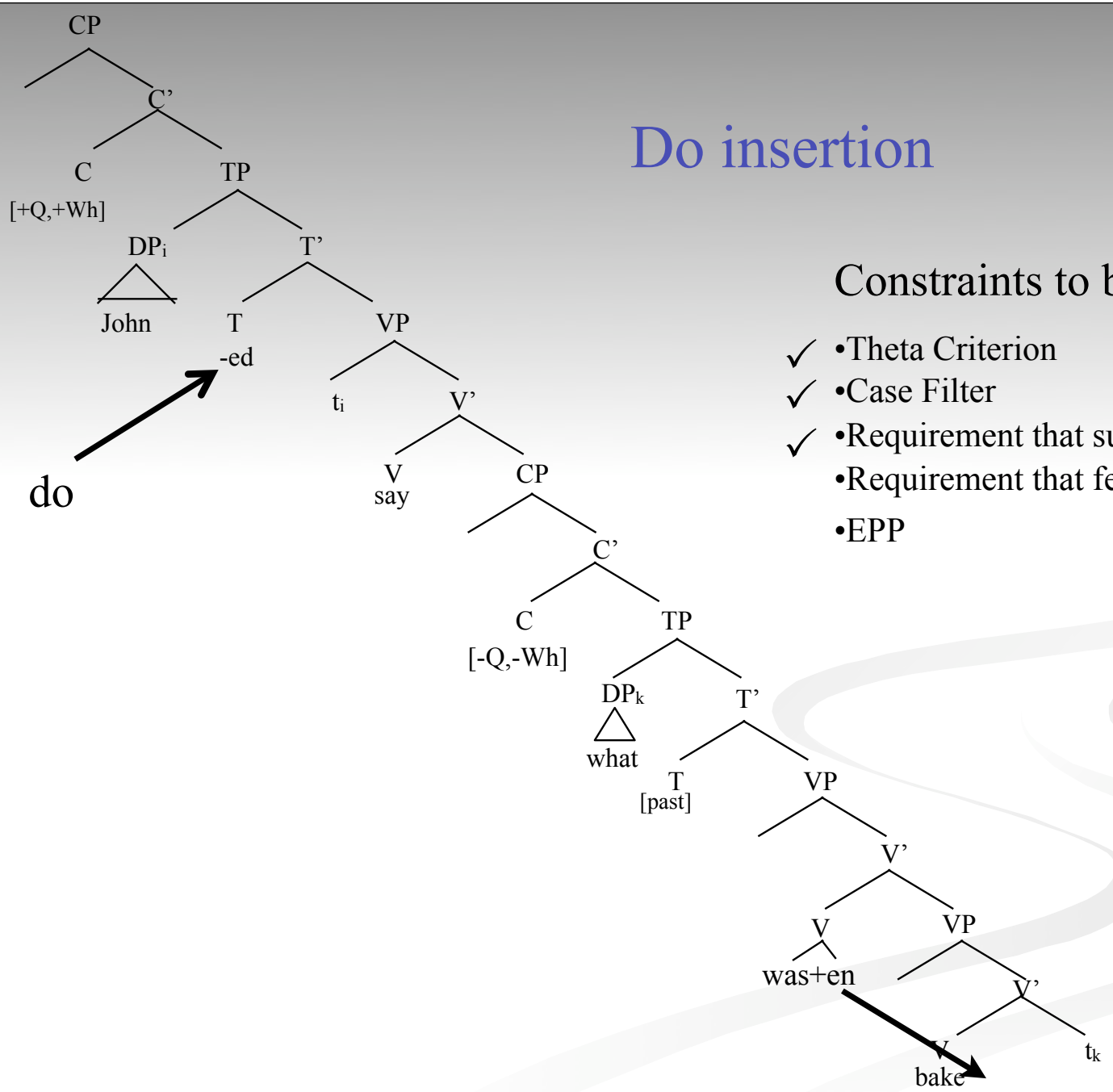
NOT A CASE POSITION (passive verb)

Can we just skip this step? No -- would be a case filter violation?

An aside: the order of things

- START in your theta position
- If necessary, DP-move to get case. (*DP movement always ends in a case position*)
- Then if necessary, Wh-move to the specifier of CP to check [+wh]. (*Wh-movement always starts in a case position*)

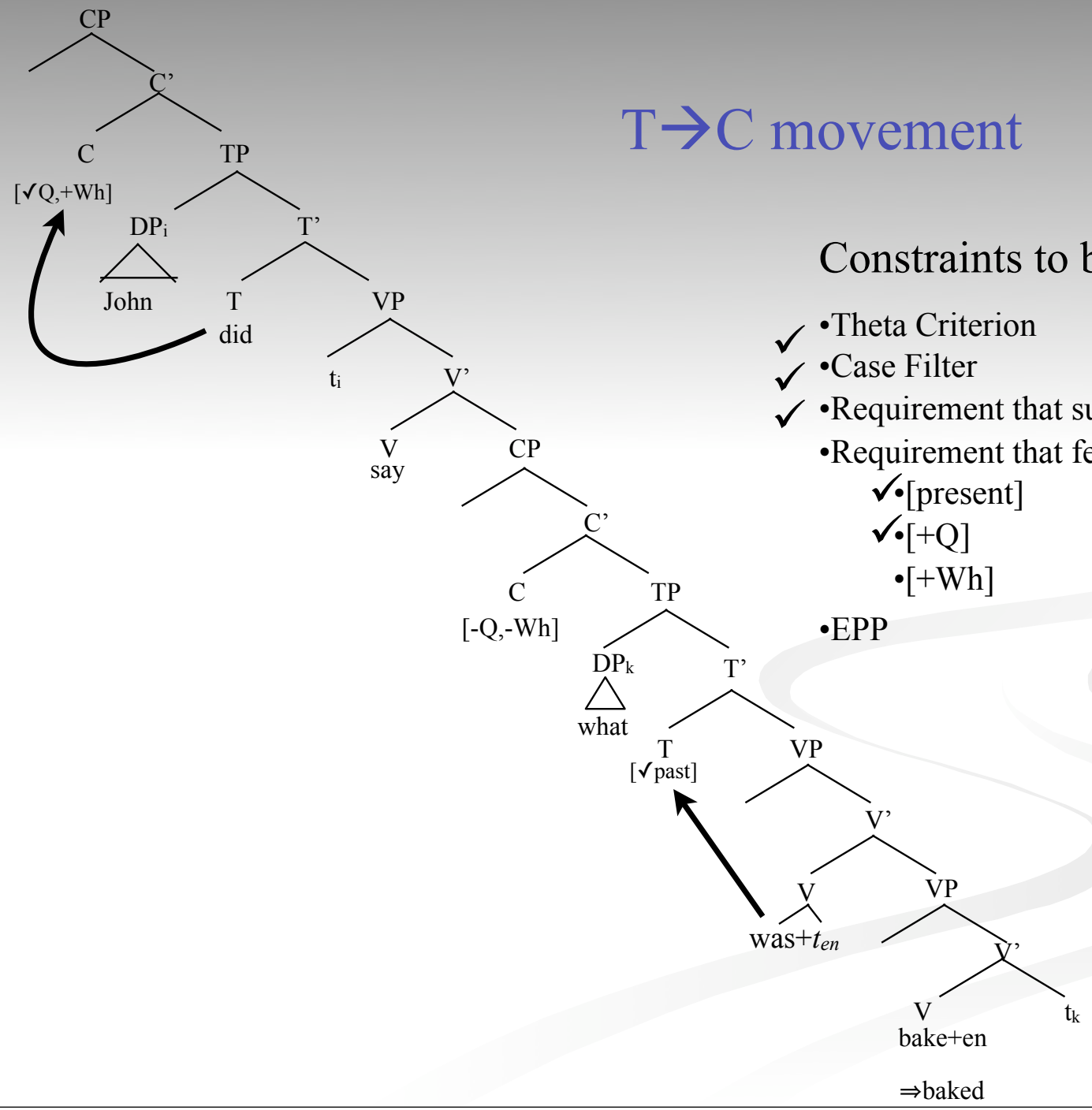
Do insertion



Constraints to be met

- ✓ •Theta Criterion
- ✓ •Case Filter
- ✓ •Requirement that suffixes are attached
- •Requirement that features are checked
- •EPP

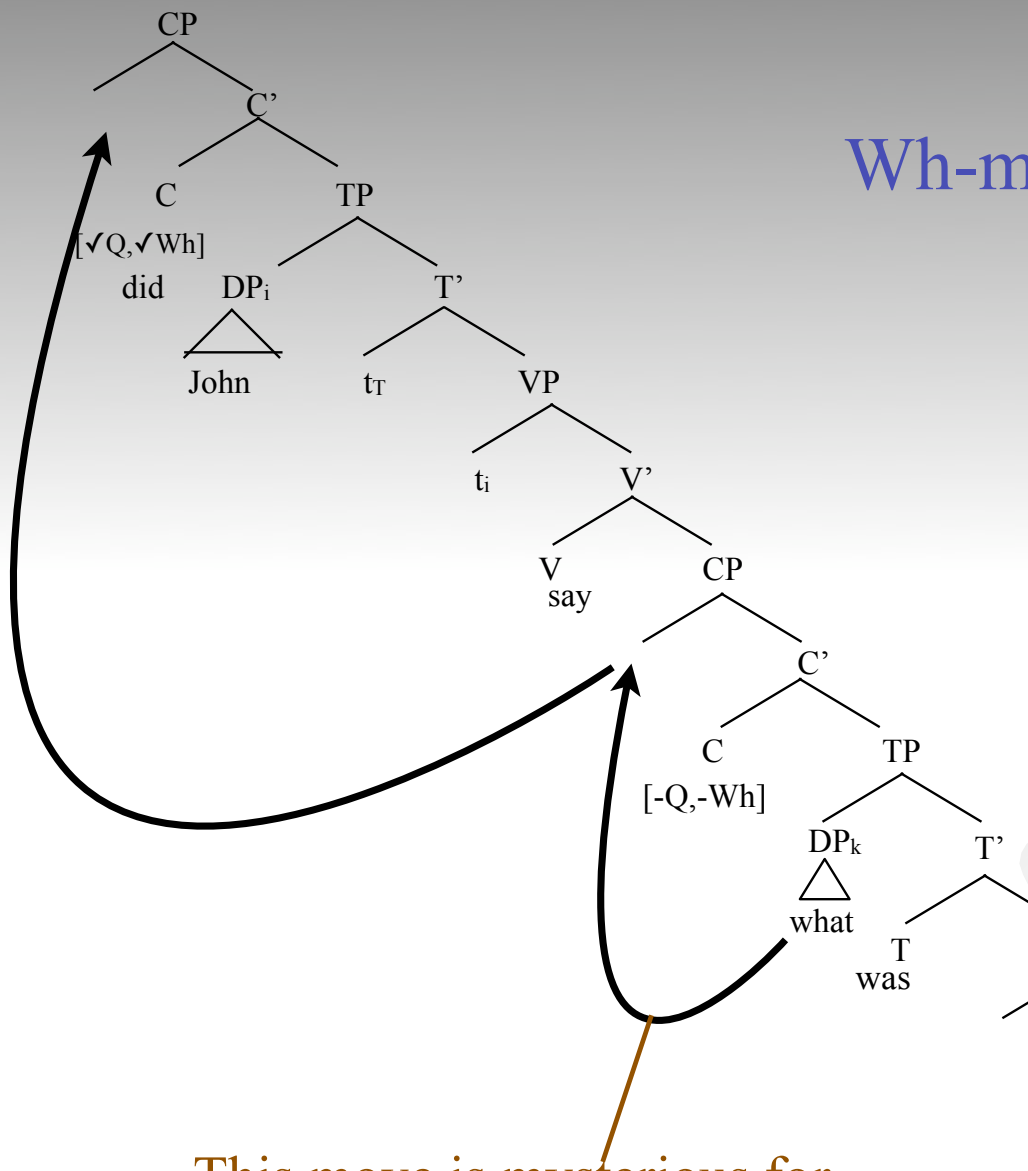
T→C movement



Constraints to be met

- ✓ •Theta Criterion
- ✓ •Case Filter
- ✓ •Requirement that suffixes are attached
- •Requirement that features are checked
  - ✓•[present]
  - ✓•[+Q]
  - •[+Wh]
- •EPP

Wh-movement

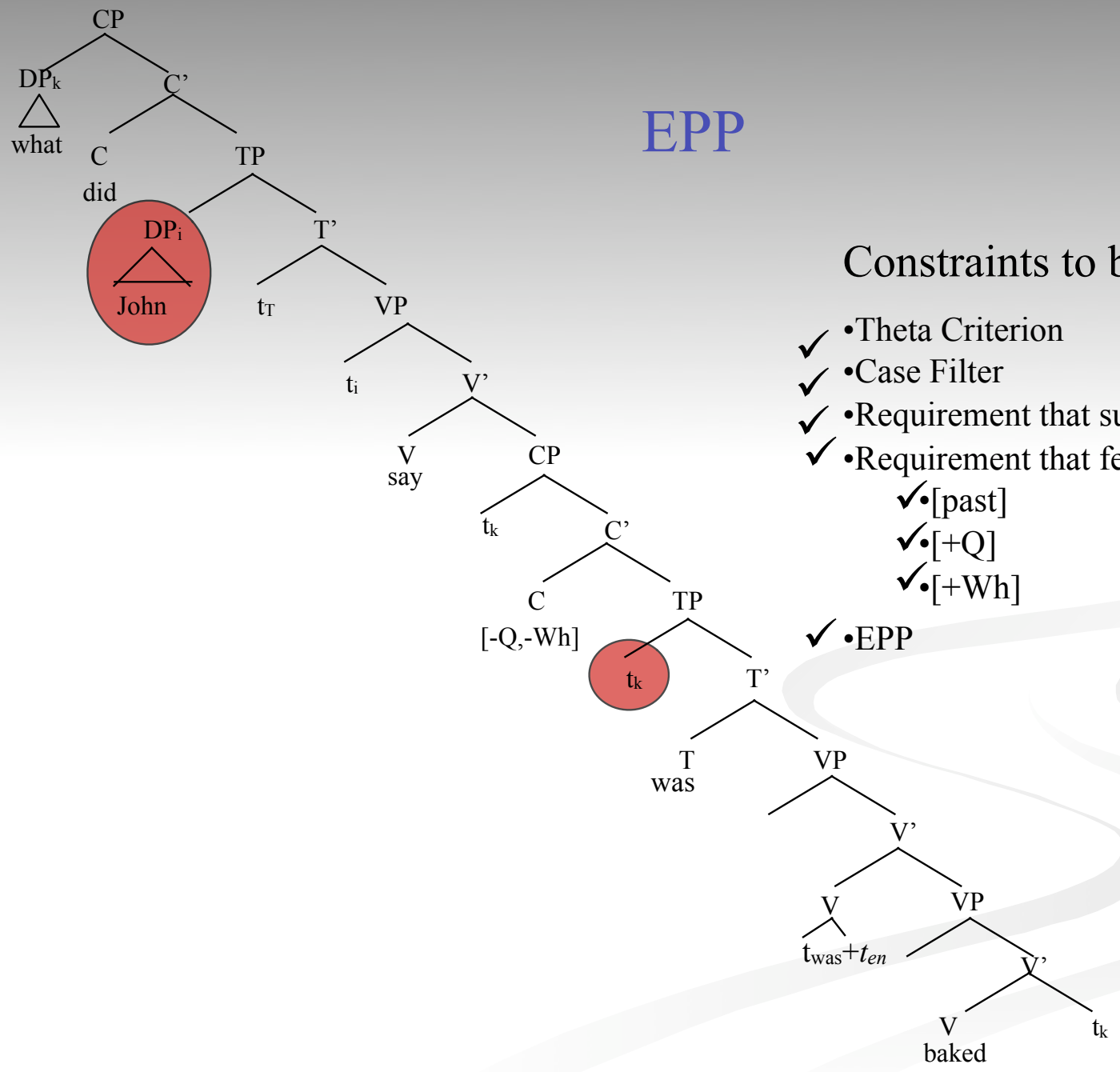


Constraints to be met

- ✓ •Theta Criterion
- ✓ •Case Filter
- ✓ •Requirement that suffixes are attached
- ✓ •Requirement that features are checked
  - ✓•[past]
  - ✓•[+Q]
  - ✓•[+Wh]
- •EPP

This move is mysterious for the moment, but will be explained shortly

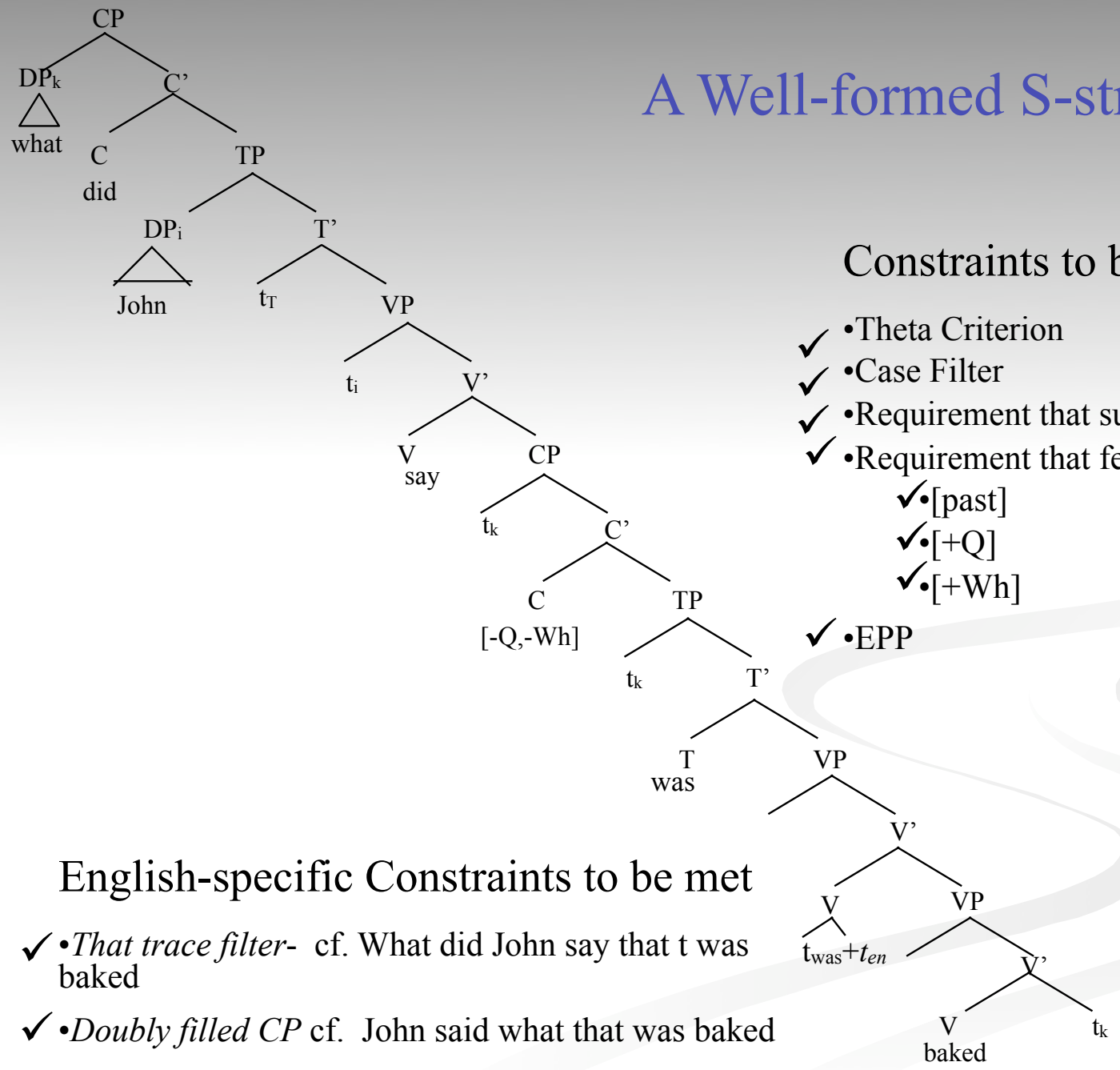
EPP



Constraints to be met

- ✓ •Theta Criterion
- ✓ •Case Filter
- ✓ •Requirement that suffixes are attached
- ✓ •Requirement that features are checked
  - ✓•[past]
  - ✓•[+Q]
  - ✓•[+Wh]
- ✓ •EPP

A Well-formed S-structure



Constraints to be met

- ✓ •Theta Criterion
- ✓ •Case Filter
- ✓ •Requirement that suffixes are attached
- ✓ •Requirement that features are checked
  - ✓ •[past]
  - ✓ •[+Q]
  - ✓ •[+Wh]
- ✓ •EPP

English-specific Constraints to be met

- ✓ •*That trace filter*- cf. What did John say that t was baked
- ✓ •*Doubly filled CP* cf. John said what that was baked

Traces?

- want + to → wanna
  - Who_i do you wanna kiss t_i?
  - *Who do you wanna kiss the puppy?
  - Who_i do you want t_i to kiss the puppy?

intervenes, so blocks wanna contraction

Children and Traces

- This movie shows three things:
- -Children exhibiting ***overt*** traces (saying the word in both its D-structure and S-structure position)
- Children never pronounce a wh-word in a *wanna* contraction environment
- Children don't *wanna* contract across a wh-trace.

What summary?

- Wh-movement moves Wh-phrase to specifier of CP
- Motivated by need to get Wh-phrase near [+WH] complementizer
- Two English Specific constraints
  - Doubly filled Comp Filter
  - That-trace filter