The unbearable lightness of being features

Seminar "week" 5: Understanding the Theory of Syntax, Summer 2014

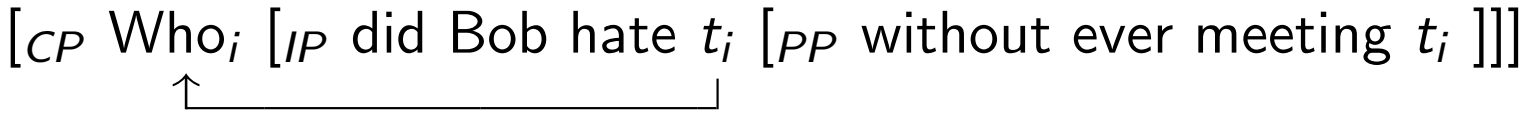
Asad Sayeed

Uni-Saarland

But first! A notational detour.

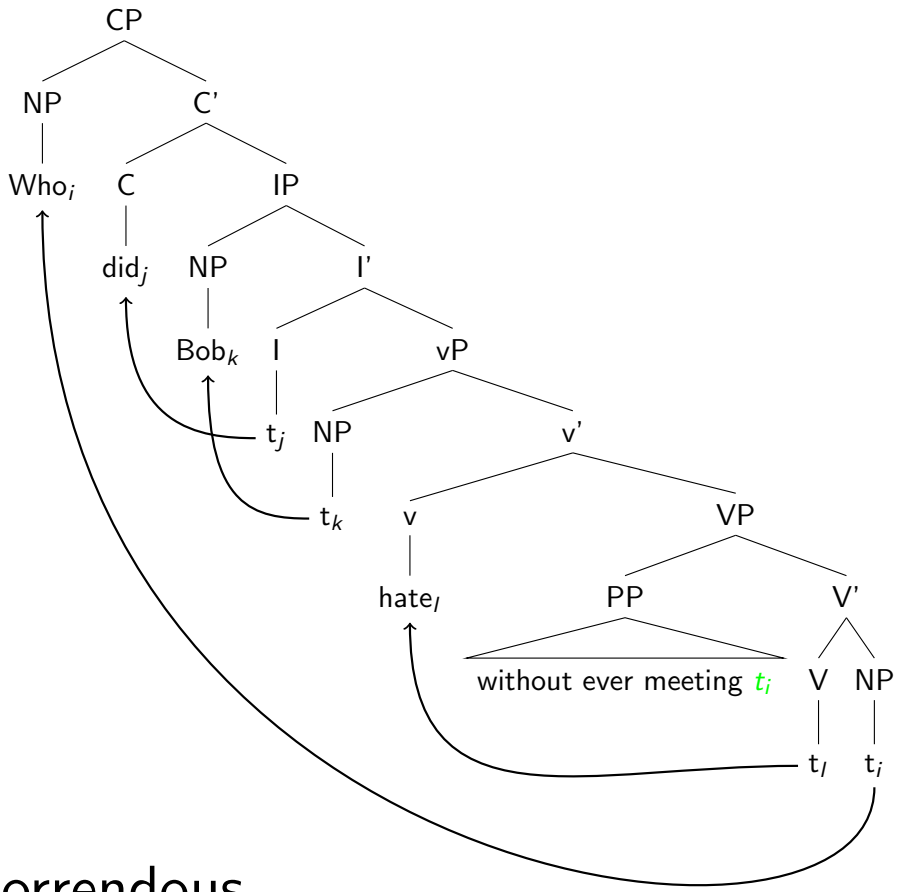
Bracketed notation is just a one-line tree.

Just to make sure we're all on the same page here.



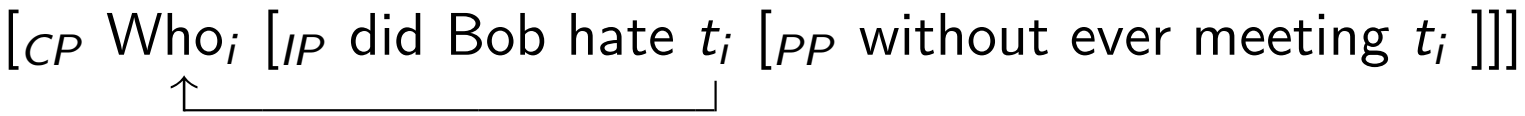
Also known as: a parasitic gap construction.

. . . which might just look like . . .



. . . but that's just horrendous.

So we'll settle on brackets some of the time.



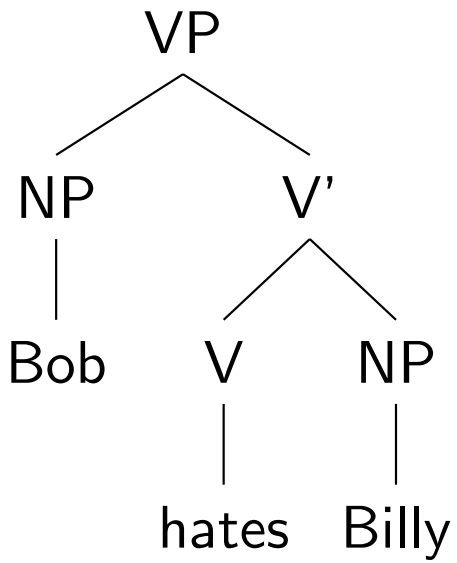
Parasitic gaps: a trace that isn't born of movement!

- But it still needs to be bound (anaphoric). (Can't refer to someone other than the answer to "Who?")
- Notice that the binder still c-commands the structure.
  - Interestingly, it doesn't topicalize: **Without ever meeting, who did Bob hate?* vs. *Over his entire career, who did Bob hate?*

But why do we need traces there at all?

Because argument positions.

We can explain a lot of things if we assume that verbs (or prepositions, etc) "select" for their arguments. . .



. . . semantically and syntactically.

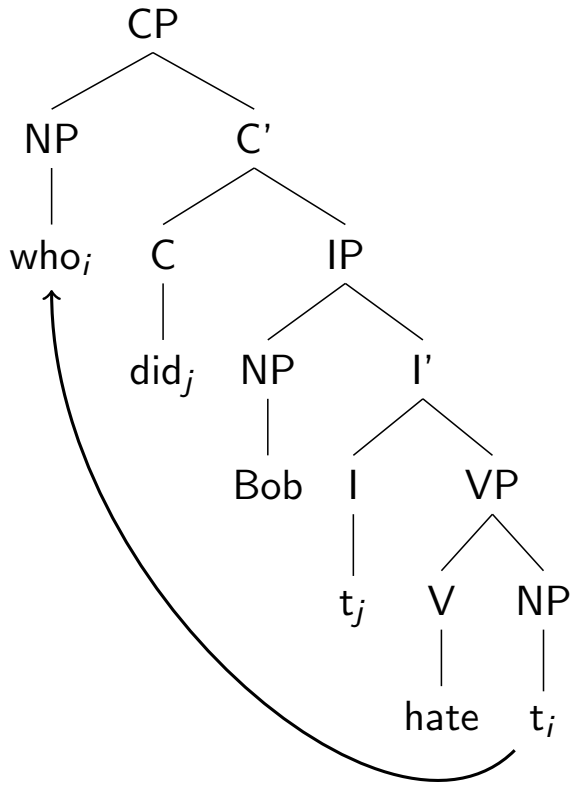
Hence, first Merge or "base-generation".

- Remember subjacency?
  - *Who did Bob hope that Bill spoke with?*
  - **Who did Bob hope that Bill spoke with Peter while visiting?*
- There seems to be a connection with the "home" of an argument.
- Topicalization: base-generation in a non-argument position.
  - *As for Billy, Bob hated him.*
  - But there is focus: *Billy, Bob hated.* (Lots of languages do one or both.)

What drives things to leave their argument positions?

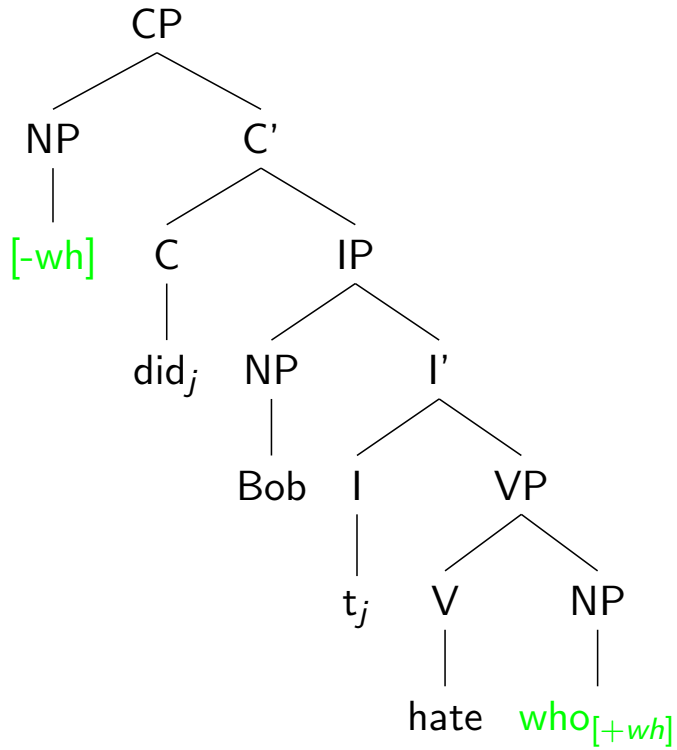
Or to appear as arguments at all? Now we start to get closer to the Adger and Svenonius reading.

- English requires one question word to move "upstairs". (Chinese doesn't – Bryan's talk!)



The answer is features.

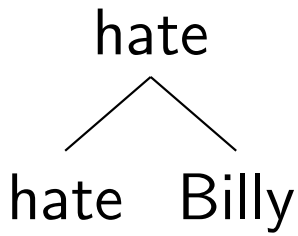
Features represent satisfiable requirements. English puts a [-wh] feature in questions.



But features don't always have to cause movement.

Some features introduce the first Merge.

hate[-N] + Billy[+N] =



- It's a lot like CCGs or other formalisms, except the features/types are smaller and movement happens explicitly.
- Warning: this is not a formalisms course...

In other words, Move is a special case of Merge.

So what's the difference?

What makes some features cause "mergement" and what causes a movement+"mergement"? Adger and Svenonius classify it this way:

- **First order features**: "privative" features that gives us primitive properties.
  - N, D, masculine, etc.
- **Second order features**: the features of features.

And that's where it gets interesting.

What features should features have?

Possible feature features:

- Category features: N, A, V, P, etc. Things that are "selected for".
- Case features: Nom, Acc, Dat, Gen, etc.
- Gender, number.
- And so on.

Positing feature types allows us to specify interactions more compactly.

We might need even more complicated structures.

Consider the so-called "EPP" features.

- EPP – "Extended projection principle"
- Originally based in the observation that some items need subjects, like verbs.
  - But it turns out that multiple things can take an NP/DP subject!
  - But particularly CP and IP (aka TP these days) and verb phrases:
    - the man [$_{CP}$ who hates Billy]
    - [$_{CP}$ Who did [$_{VP}$ Billy hate]]

So the "principle" becomes a feature of a category feature: attract a DP/NP. (Not the only account.)

So features "trigger" things.

Some features demand movement! "Uninterpretable" features.

- Now we start bringing in the notions of PF and LF again.
- PF and LF are "interfaces" that have requirements on "interpreting" features.
  - "Converge" at an interface: meet the requirements of the interface.
  - "Non-convergent" derivations "crash" – they contain something non-compliant.
  - When a feature is uninterpretable at an interface, we have to get "rid" of it.

Like the wh stuff.

wh-features are uninterpretable at LF.

- At some point in the derivation, they must be "checked" by movement.
- In English: checked *before* convergence with PF $\rightarrow$ "overt" movement
- In Chinese: checked *after* convergence with PF $\rightarrow$ "covert" movement (hi Bryan1)

But not all things Move or Merge.

From Adger and Svenonius:

- *There seems to be many men in the garden.
- *There seem to be a man in the garden.

Agreement requirements on so-called ϕ-features: gender, number, etc.

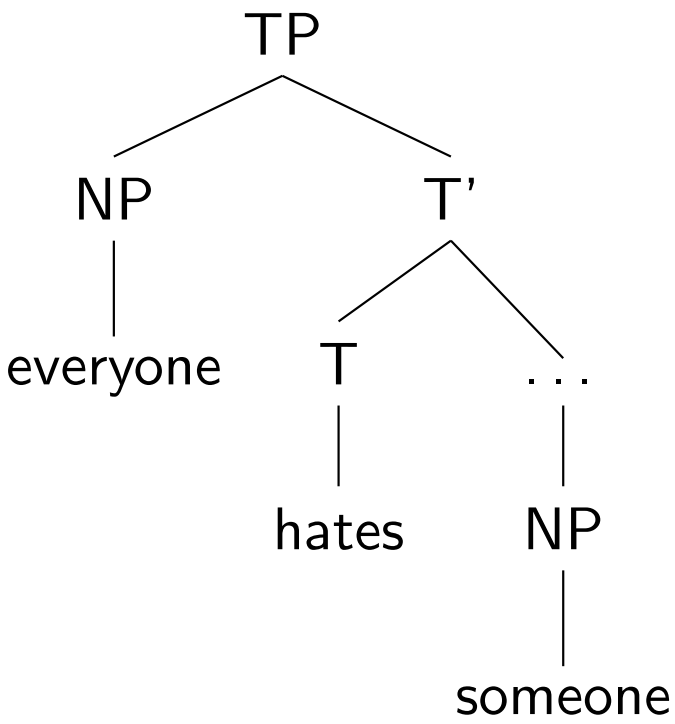
So we might need a special "Agree" operation.

Does it always require movement/immediate locality?

- Controversial.
- . . . [$_{CP}$ dass er$_s g$ etwas vergessen hat$_s g$.]
- Reason to think that "er" comes from downstairs: its argument position is closer to "hat".
- In which case ϕ features would be checked by agreement – locally.

But some movements happen "after" PF.

An obvious case: ambiguous quantifier interpretation.

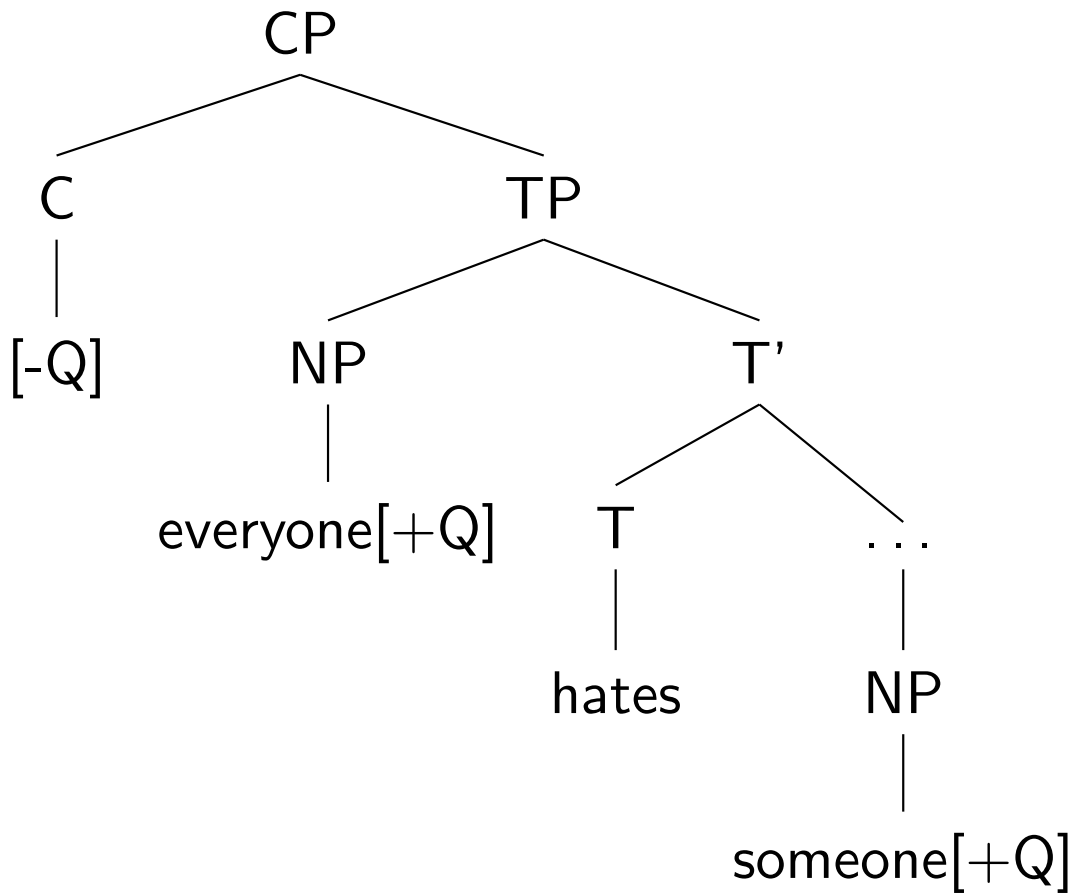


There are two possible readings.

- For each person A in a group of people, A selects another person B and hates them. ($\forall x \exists y$)
- There is a specific person B such that for each person A in a group of people, A hates B. ($\exists y \forall x$)

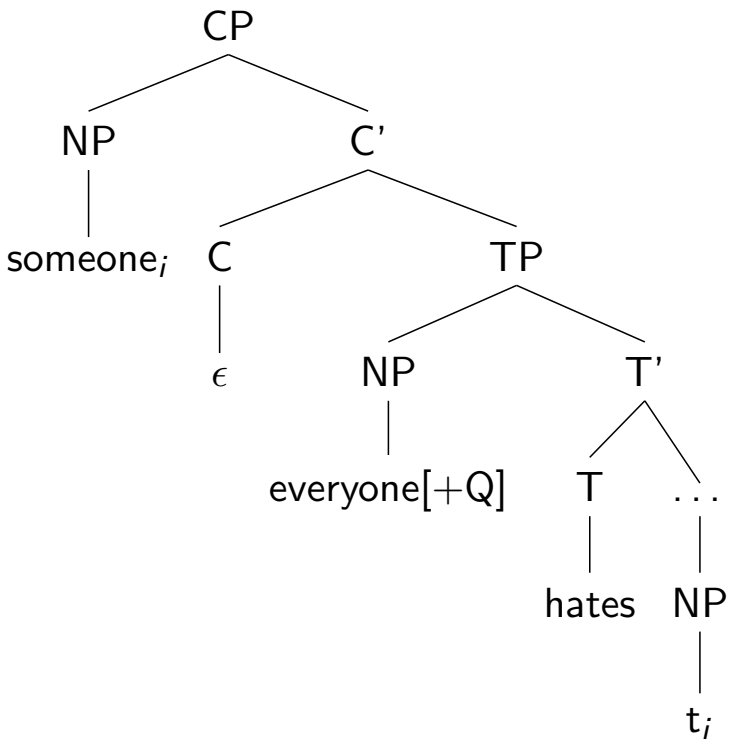
Both readings allowed in English, but not in other languages. How do we get the second (inverse) reading?

We could impute a feature.



And let movement take care of the rest!

Both "everyone" and "someone" are somehow eligible to satisfy [-Q].



But we don't actually say that.

It's purely covert movement.

- The [-Q] feature is uninterpretable at LF.
- Something (either "everyone" or "someone" must check it.)
- If "everyone" checks it, we get "string-vacuous" movement (remember that?)

But how do you know "someone" moved at all?

One piece of evidence: subjacency.

Everyone knows the man who hates someone.

The inverse reading is not possible, a barrier/phase/whatever interrupts the c-command relation.

So on Thursday...

- I keep reminding y'all: Bryan is going to present on covert movement in Chinese.
- Week after: Ilya Kornev on something completely different, functional grammar.