

CAS LX 522 Syntax I

V2, and *wh*-movement
(8.4, 9.1-9.3)

18

CP

- The thread here (chapter 8) is motivating and making use of the CP level of our structure:
- C is the home of the [clause-type:...] feature, differentiating interrogatives and declaratives.
- C is sometimes available to check case on the subject when it can't be checked the higher verb (ECM) or finite T:
 - I want [\emptyset_{NULL} PRO to see more syntax]
 - I intended [for her to be win the lottery].
- We'll see more for CP as we explore question formation—but first, we'll see it at work in German...

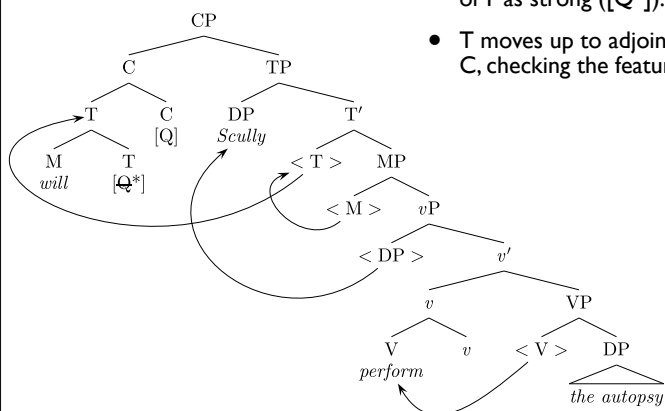
V2 languages

- There are a number of languages that are classified as “verb second” or “**V2**” languages. They are so called because in general the (tensed) verb must be second, after the first major constituent in the sentence.
- De man heeft een boek gezien gisteren. **(Dutch)**
the man has a book seen yesterday
'the man has seen a book yesterday.'
- een boek heeft de man gezien gisteren.
- gisteren heeft de man een boek gezien.
- Die Kinder haben diesen Film gesehen. **(German)**
the children have this film seen
'The children have seen this film.'
- Diesen Film haben die Kinder gesehen.

Analyzing V2

- How can we account for this?
- Assume that in German, most things are very similar to English:
 - The UTAH is the same (Agents in SpecvP, etc.)
 - The EPP is the same (T has a [**uD***] feature; there needs to be a DP in SpecTP)
- Things to remember:
 - French/Irish and English differ in whether *v* moves to T.
 - Irish and French/English differ in whether the subject moves to SpecTP.
 - In English yes-no questions (but not in declaratives), T moves to C.

English Yes-No Question



- In a YNQ, the [Q] feature of C matches and values the [*u*clause-type:] feature of T as strong ([Q*]).
- T moves up to adjoin to C, checking the feature.

Analyzing V2

- Since the finite verb is sometimes to the left of the subject:
 - Diesen Roman las ich schon letztes Jahr
this book read I already last year
'I read this book already last year.'
- Just like it is in English YNQs:
 - Will I get an A?
- We can suppose that German and English differ in that when C values the [*u*clause-type:] feature of T, it is *always* strong.
 - In fact, more natural sounding than what we have to say in English: When C values [*u*clause-type:] as [Q] (but not [Decl]) it's strong.

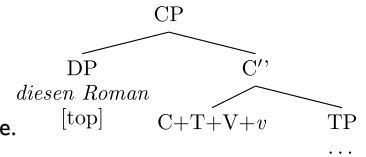
TOPICS

- The constituent that appears first in a V2 clause is generally considered to be a topic.
- Suppose that C has a “topic” feature [**utop***] and whatever is the topic of the sentence (be it an adverb, the subject, the object) is also marked with an (interpretable) [top] feature.
- Then this will work just like the EPP, essentially.

V2 languages

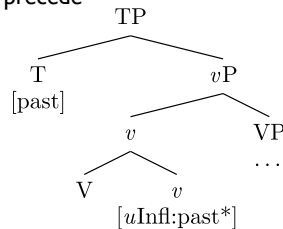
- The basic idea we’ll be pursuing with respect to V2 languages is this:
 - To get the tensed verb higher than the subject (which is sometimes is), we move the verb to T, and then T (with the verb) to C.
 - To put C into “second position”, we move some phrase into SpecCP.
- The “first phrase” in V2 languages is generally interpreted as the topic of the sentences.

So, we say that the topic (whatever it is going to be) has a feature that marks it as such: An interpretable [top] feature.



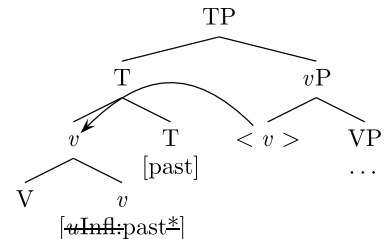
Reminder: T, v, and [**uInfl**:]

- The way our system works (movement happens in order to check strong uninterpretable features), we implement this as follows:
 - Because the verb moves to T, we need there to be a strong feature checked between T and v.
 - This is common cross-linguistically. Recall French, where the highest verbal head (the v, or an auxiliary) moves to T.
 - This explained why verbs always precede adverbs and negation in French.
- Since the [tense] feature of T values the [**uInfl**] feature of the highest verbal head, we say that in French, when [tense] values [**uInfl**], the feature is strong.



Reminder: v to T

- So, v starts out with a [**uInfl**] feature.
 - **v always starts out with a [**uInfl**] feature.**
- We Merge T, and the [tense] feature (e.g., [past] = [tense:past]) matches and values the [**uInfl**] feature.
- What differentiates French and English is that when [tense] values [**uInfl**], the valued [**uInfl**] feature is **strong**.
- In English, it is not strong except in one case: if the [**uInfl**] feature is one an auxiliary (Perf, Prog, Pass), then a [**uInfl**] feature valued by [tense] is strong.

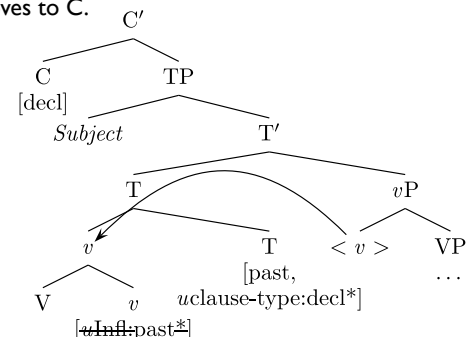


Reminder: Strong features

- Strong features are uninterpretable features that can be checked only when **local to** (a sister of) the feature that checks them.
- **Strong features very often = something must move.**
- A feature gets to be strong in one of two ways:
 - An **inherently strong feature** of the lexical item.
 - v has a strong [**uV***] feature.
 - T has a strong [**uD***] feature.
 - eat (V) has a strong [**uD***] feature (associated with the Theme θ -role).
 - A feature that becomes **strong when valued**.
 - Prog has a weak [**uInfl**] feature. When valued by [tense], it becomes strong. (In English, Aux moves to T: *I am not eating green eggs & ham*)
 - T has a weak [**uclause-type**] feature. When valued by [clause-type:Q], it becomes strong. (In English, T moves to C in questions: *Would you eat them on a train?*)

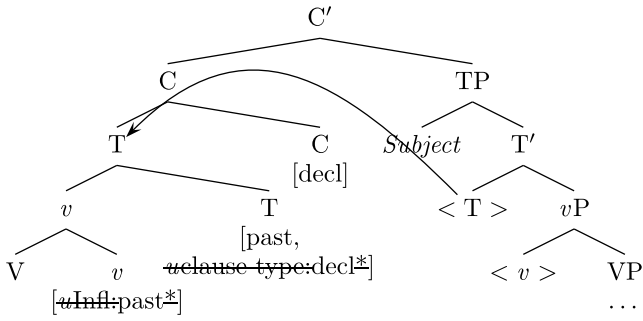
V2 languages

- To account for the fact that v moves to T and then T moves to C in German: a feature that C values on T is valued as strong.
- [**uclause-type**] is a perfect candidate.
- So, when [**uclause-type**] is valued by C in German, it is valued as strong, and so T moves to C.



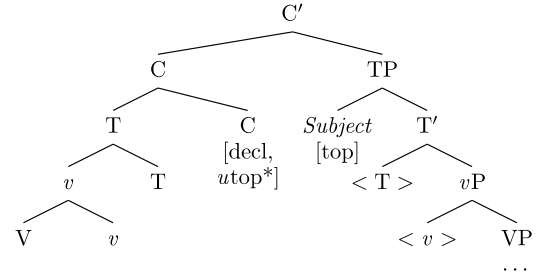
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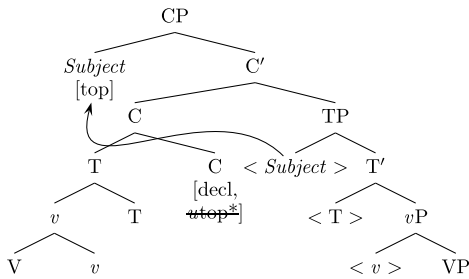
V2 languages

- To account for the fact that the topic moves into SpecCP, we say that C has a **[utop*]** feature. Whatever is the topic in the sentence will have a feature designating that, [top].
- Just like the EPP feature (**[uD*]**) of T forces the subject into SpecTP, the **[utop*]** feature of C will force movement of the topic into SpecCP.

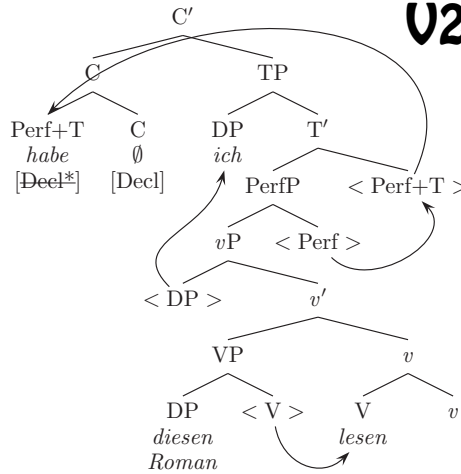


V2 languages

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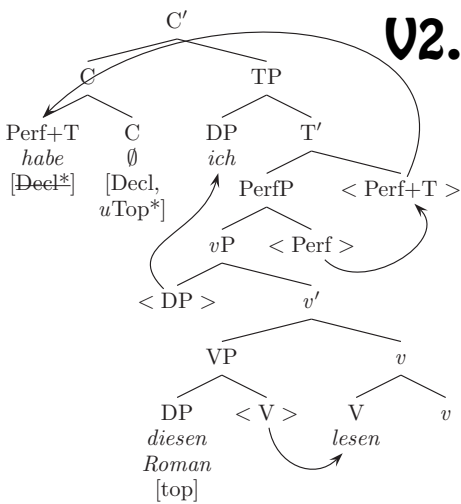


V2...step 1



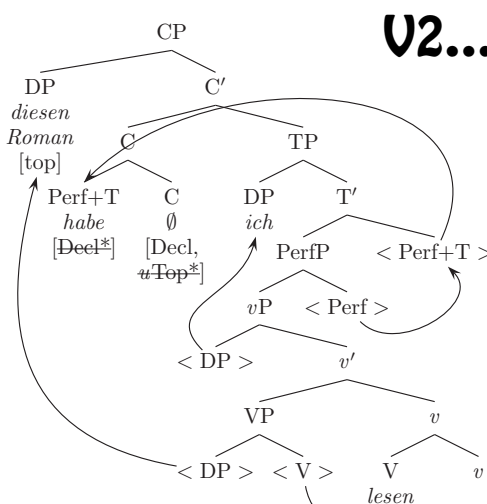
- V moves to v.
- Perf moves to T.
- T moves to C.
- Subject moves to SpecTP.

V2...step 2a



- The object is marked as topic.
- C has a **[utop*]** feature.

V2...step 2b



- The object moves up to SpecTP.
- The tensed verb is now in second position.

Embedded clauses

- Will John arrive late?
- T moves to C in English questions.
- [**uclause-type:**] on T is strong when valued by [Q] on C.
- I wonder [_{CP} **if** John will arrive late].
- T does **not** move to C in embedded questions.
- Perhaps because C is “filled” already (by *if*).
- Intuition: We need to be able to tell when C is [Q]— if nothing is pronounced there, we move T there to signal that C is [Q].
- Er sagte [_{CP} **dass** ich schon letztes Jahr diesen Roman **las**] he said **that** I already last year this book **read** ‘He said that I read this book already last year.’
- If C is filled in German (*dass*), T does not move to C.
- Also notice that when T does not move to C, **the verb is at the end.**
- German appears to be a **head-final** language.

Interlude: what we’re doing

- Remember, what we’re doing is trying to describe our **knowledge of language.**
- We believe that the intricacies of human language are actually too complicated to *learn*, that we’re in fact describing a kind of system that is genetically “built-in”, sort of like our vision system.
- If that’s the case, the same system must underlie all human languages, and the differences must be relatively minor.
- We’re identifying a few “parameters of variation”—ways in which human languages can differ.

Interlude: what we’re doing

- What we’re saying here is that languages can differ in a few small respects, and **we can account for that:**
- **Headedness:** heads come before complements in some languages (English), and after complements in others (Japanese, German).
- **Verb-raising:** some languages move *v* to T (French), others don’t. (Under what conditions does T value [**uInfl:**] as strong?)
- **V2:** some languages move *v* all the way to C (through T), and topicalize something, yielding the V2 pattern. (Under what conditions does C have a [**utop*:**] feature and value [**uclause-type:**] as strong?)
- **EPP:** VSO languages seem to move *v* up to T, but don’t move the subject to SpecTP, yielding VSO. (Does T have a [**uD*:**] feature?)

Types of sentences

- Sentences come in several **types.** We’ve mainly seen **declarative clauses.**
 - Horton heard a Who.
- But there are also questions (**interrogative clauses**)...
 - Did Horton hear a Who?
 - Who did Horton hear?
- ...**exclamatives**...
 - What a crazy elephant!
- ...**imperatives**...
 - Pass me the salt.

Wh-questions

- *Wh*-questions are “information-seeking” questions, involving a *wh*-word.
 - Who, what, when, where, why, HoW, which
- *What will they bake?*
- Observe that *what* is basically the object of *bake*. And look how far away it is from *bake*, the thing that assigns it a θ -role.
 - Cf also. “echo questions”: *I drank WHAT?*
- Also, notice that T has moved to C here too (like it does in yes-no questions).

(wh)

- *Wh*-words are a little bit like pronouns, standing in for whatever category of thing we’d like information about.
- These interrogative expressions are different from non-interrogative pronouns and demonstratives.
 - *That will they bake.
- *What, where, when* are differentiated from *that, there, then* in being interrogative. This is a feature of the *wh*-word: [**wh**].

[wh]

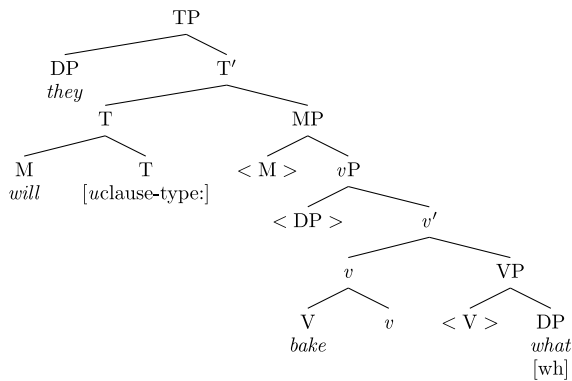
- A *wh*-word has the same category as its non-*wh*-counterpart—therefore, *wh*-words come in several different categories.
 - What [wh, D]
 - Who [wh, D, human]
 - When [wh, Adv, temporal]
 - Where [wh, Adv, locational]
 - How [wh, Adv, manner]
 - Why [wh, Adv, reason]
 - Which [wh, D, uN*]

How are wh-questions formed?

- What we have in English *wh*-questions is like a limited form of V2.
- The analysis of *wh*-questions is the same:
 - The T head moves to C
 - The *wh*-expression moves to SpecCP
- Let's suppose that the reason/mechanism moving T to C is the same as in yes-no questions: We have an interrogative C, with [clause-type:Q]. When the [**uclause-type:**] feature of T is valued by [Q], it is strong.

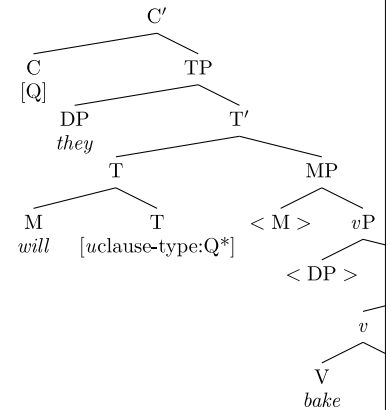
What will they bake?

- To start out, we have a vP and TP as usual. The only unusual thing so far is that we have a *wh*-object *what*.



What will they bake?

- The complementizer C has the information about clause-type, and this is a question. As before with yes-no questions, we assume that this C has the feature [clause-type:Q] (or "[Q]" for short).
- As with yes-no questions, the [**uclause-type:**] feature of T is strong when valued by Q.

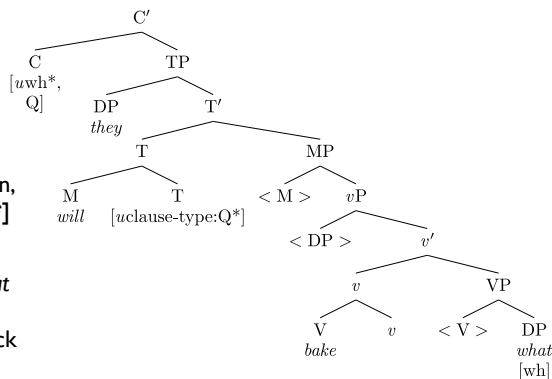


What will they bake?

- As for how *what* winds up at the beginning of the sentence, we will treat this essentially like we treated German V2.

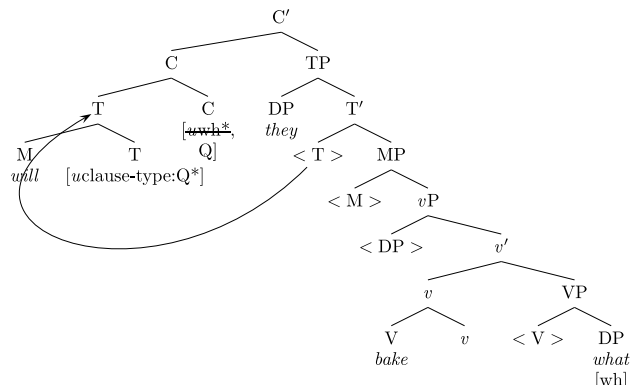
In a *wh*-question, C has a [**uwh***] feature.

This forces *what* to move into SpecCP to check the feature.



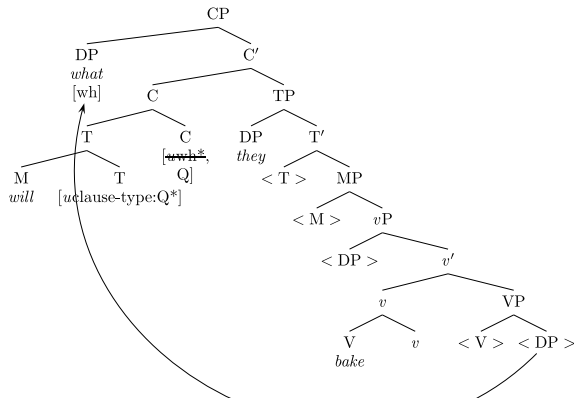
What will they bake?

- T will move to check the (now strong) [**uclause-type:Q***] feature.
- *What* moves to SpecCP and checks the [**uwh***] feature of C.



What will they bake?

- T will move to check the (now strong) [*u*clause-type:Q*] feature.
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Interrogative Q vs. Declarative Q

- Looking at *wh*-questions as compared to yes-no questions, it looks as if there are two kinds of interrogative C:
 - **“yes-no” C:** [C, clause-type:Q]
 - ***wh*-question C:** [C, clause-type:Q, *uwh**]
- This is in fact often supposed in the syntax literature—and many languages seem to have a special particle reserved for yes-no questions (e.g., English *if*, Mandarin *ma*)
- **Adger notes a problem, however:** Nothing in our system so far prevents us from using a yes-no C with a *wh*-word, predicting:
 - Will they bake what?

Op

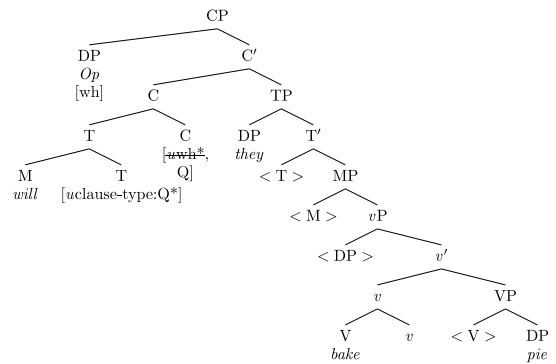
- Accordingly, Adger proposes that there’s a *wh*-word even in “yes-no questions”.
- There are actually other reasons to think this as well, but we’ll get to them later.
- That is *Will they bake cookies?* is actually something pretty close to:

Whether will they bake cookies?

except with a “silent” *whether*, called **Op**.

Will they bake pie?

- *Op* appears in yes-no questions in the same place that *wh*-words do in *wh*-questions (and we assume it has a [*wh*] feature as well).
- *Op* is probably like a “silent” *whether* (*wh*+*either*).



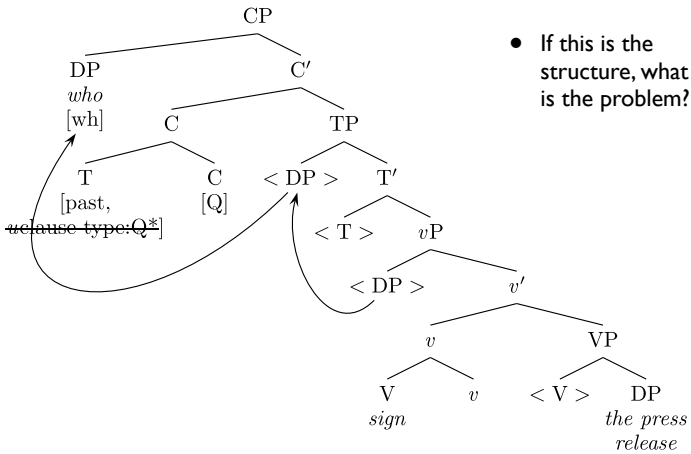
Summary so far

- In *wh*-questions such as *What did they bake?*
 - *What* is like a pronoun, standing in for the theme.
 - *Wh*-words are differentiated by having a [*wh*] feature.
 - The structure of a *wh*-question is like a V2 clause:
 - T moves to C:
 - The [*u*clause-type:] feature of T is strong when valued as Q.
 - The *wh*-word moves to SpecCP:
 - The interrogative C has a strong uninterpretable [*uwh**] feature.

Subject wh-questions

- This works nicely for all kinds of *wh*-questions.
 - *What did Toby sign?*
 - *How did Toby sign the press release?*
 - *Why did Toby sign the press release?*
 - *When did Toby sign the press release?*
 - *Where did Toby sign the press release?*
- But **subject *wh*-questions** pose something of a puzzle:
 - *Who signed the press release?*

Who signed the press release?



- If this is the structure, what is the problem?

Two ways to go

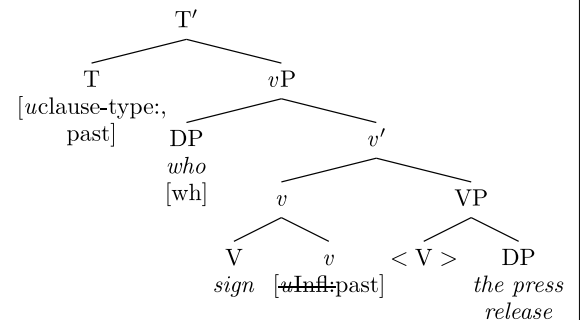
- There is a decision to make here as we move our analysis forward to handle *Who signed the press release?*
- **Option one:** All *wh*-questions work the same way. In main clauses, T moves to C, the *wh*-word moves to SpecCP. Nice, tidy, elegant. But we need to re-evaluate PTR and *do*-support.
- **Option two:** Subject *wh*-questions are different. PTR works the same way everywhere, T moves to C in most *wh*-questions, but in **subject *wh*-questions**, T stays where it is.

Option two

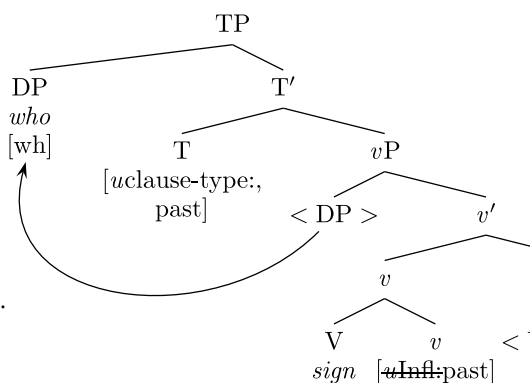
- We'll pursue option two. T doesn't move in subject *wh*-questions. How might that work?
- Why does T move to C in other questions?
- **[uclause-type:]** on T is strong when valued as **[uclause-type:Q*]**.
- Adger's proposal: **[uclause-type:]** can be valued as **[wh]**.
- **Ancillary assumption** **[uclause-type:]** can only be valued "from above" (the only *wh*-word that can value **[uclause-type:]** on T is one that c-commands T, a subject *wh*-word).

Who signed the press release?

- Merging up to T'...

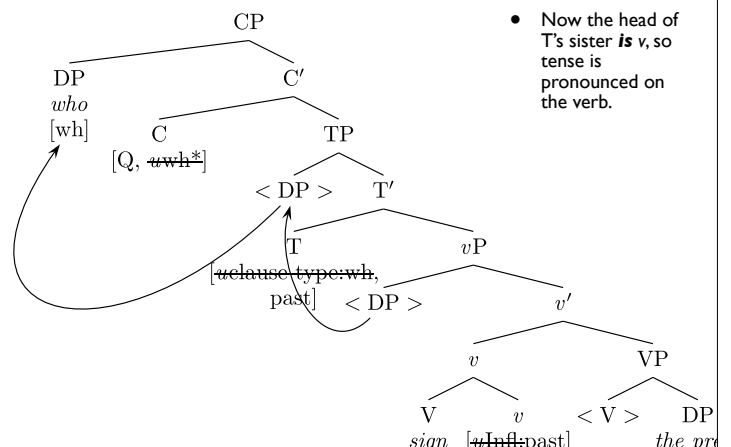


Who signed the press release?



- Move *who* to SpecTP (EPP).
- Now **[wh]** c-commands **[uclause-type:]** and can value it.

Who signed the press release?



- Now the head of T's sister **is** *v*, so tense is pronounced on the verb.

Multiple wh-questions

- Although less common, it is possible to ask a question with more than one *wh*-word:
 - (What I want to know is:) What will Dan give to whom?
 - Casey knows who moved where.
- Notice what happens:
 - [_{TP} Dan will [_{VP} <Dan> v+give [_{VP} what <give> [_{PP} to whom]]]
- [_{CP} what C+will [_{TP} Dan <will> [_{VP} <Dan> v+give [_{VP} <what> <give> [_{PP} to whom]]]

wh-in-situ

- In English *wh*-questions, a *wh*-word moves up to SpecCP. But if there are **two**, then only one moves, the other stays behind, “in its natural place.”
- Does our system so far predict this?
 - In *wh*-questions, C has a [Q] feature and a [**uwh***] feature.
 - When the [**uclause-type**] feature of T is valued by Q the resulting [**uclause-type:Q***] feature on T is strong.
- Sort of...

*What did who give to Casey?

- It turns out that when you have two options in principle, only one is actually grammatical:
 - Who gave what to Casey?
 - *What did who give to Casey?
- **What’s the difference?**
 - [_{CP} who C [_{TP} <who> T [_{VP} <who> v+give [_{VP} what <give> ...]
 - [_{CP} what C+T [_{TP} who <T> [_{VP} <who> v+give [_{VP} <what> <give>]

*What did who give to Casey?

- **Superiority**
The highest *wh*-word moves.
(All things being equal, the shorter move is preferred)
 - Compare:
 - A book was given <a book> to Pete.
 - *Pete was given a book to <Pete>.
 - [_{CP} who C [_{TP} <who> T [_{VP} <who> v+give [_{VP} what <give> ...]
 - [_{CP} what C+T [_{TP} who <T> [_{VP} <who> v+give [_{VP} <what> <give>]

D-linking

- Just a note:
Sometimes Superiority appears to be violated.
- I have a list of the authors here, and a list of the books. But I don’t know...
which book which author wrote.
- When this happens, the interpretation is somewhat special. The *wh*-word that is “skipped” (and generally both of them) is picking out one of a small, known list. **D(iscourse)-linking**.

The wh-typology

- **English: One *wh*-word** moves to the front.
 - What did Bill give to whom?
- **Japanese: No *wh*-words** move to the front.
 - Taroo-ga dare-ni nani-o ageta no?
T-nom who-to what-acc gave Q
‘What did Taroo give to whom?’
- **Bulgarian: All *wh*-words** move to the front.
 - Kakvo na kogo Ivan dade?
what to whom Ivan gave
‘What did Ivan give to whom?’
- **French: One *wh*-word or no *wh*-words** move to the front.
 - Qui as-tu vu? Tu as vu qui?
Who have-you seen You have seen who
‘Who did you see?’ ‘Who did you see?’