

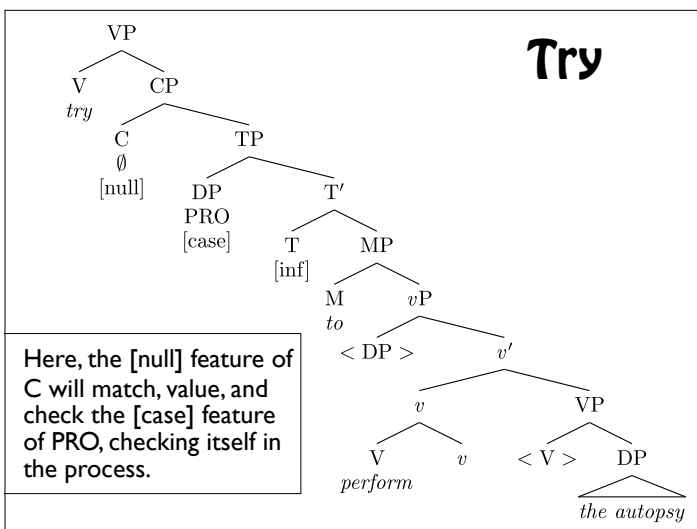
# CAS LX 422 / GRS LX 722 Intermediate Syntax

Raising, etc.  
(8.2.6-8.4)

# 14

## Reminder: Try

- *Try* embeds a nonfinite CP, headed by the special null C with the [null] case feature.
- In turn, the subject must be PRO, in order to successfully check that feature of C.
- If the [case] feature of any other DP is valued and checked as [null], the derivation crashes: only PRO can have null case.
- The embedded clause must be nonfinite (T can't itself have a [nom] feature).
- If the [nom] feature of T checks the [case] feature of the subject, nothing is left to check C's [null] feature.



## Believe

Another place where nonfinite clauses can be embedded is under the verb *believe*.

1) I believe [him to be innocent].

Here, we have an accusative subject, and a nonfinite T that is not capable of checking case.

How is the (accusative) case of *him* checked?

This relates to the fact that *believe* can also simply take a DP object:

2) I believe him.

So, how is the accusative case of *him* checked here?

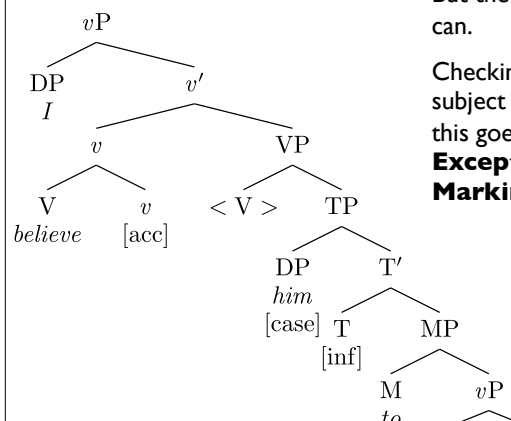
## ECM

The idea is that *believe* (actually the *v* that combines with the V *believe*) has an [acc] feature that can check the case of *him* in *I believe him*.

Suppose that *believe* can either have a DP **or a TP** as its complement.

What do we expect?

## ECM



Nonfinite T cannot check the case feature of *him*. But the higher *v* of *believe* can.

Checking the case of a subject "from above" like this goes by the name **Exceptional Case Marking (ECM)**.

## Arranging to leave

A somewhat similar phenomenon occurs with verbs like *arrange*.

1) Harry arranged for Tom to leave MI-5.

- Here, we have:

Nonfinite T, which cannot check case.

An overt subject (*Tom*) in the accusative.

The word *for*, which we classify as C.

*For*, as a P, checks accusative case (*He baked a cake for her*). If the C *for* also has an [acc] feature, it could check the [case] feature on *Tom*.

## Arranging to leave

*Arrange*-type verbs can take a CP complement.

1) Harry arranged for Tom to leave MI-5.

- Notice that it is also possible to say

2) Tom arranged PRO to leave MI-5.

- But this is expected.

Nonfinite T, cannot check case.

The null C with [null] case can check the case of PRO.

An overt subject can't get null case:

\*Harry arranged Tom to leave MI-5.

PRO cannot get anything but null case:

\*Tom arranged for to leave MI-5.

## Summary

Complementizers indicate clause type (*that/∅* for declaratives, *if/whether* for interrogatives).

Some verbs embed clauses. Finite clauses are always CPs.

Some verbs can embed nonfinite clauses, some embedding TP and others embedding CP.

*Believe* (*expect*, ...) embed TP and check accusative case (ECM verbs).

*Try* (*want*, ...) embed CP. This can either be:

C[null], checking null case on PRO.

*for*[acc], checking acc case on an overt subject. Not all verbs allow this option (*want* does, *try* doesn't).

## Sentences inside sentences

So, to recap: **embedded sentences**.

Embedded sentences can be finite:

1) Shannon claimed [that she could catch a fish].

Or nonfinite:

2) Michael wants [PRO to leave].

3) Jin wants [Michael to return the watch].

4) Sun arranged [for him to return the watch].

## Embedded clauses

Embedded finite clauses are CPs, with a complementizer (*that* or  $\emptyset$ ).

1) Shannon claimed [<sub>CP</sub> that she could catch a fish].

2) Shannon claimed [<sub>CP</sub>  $\emptyset$  she could catch a fish].

Embedded nonfinite clauses have *to*, and can be CPs or bare TPs— the distinction is determined by case properties of the verb.

3) Michael wants [<sub>CP</sub>  $\emptyset$  <sub>NULL</sub> PRO <sub>NULL</sub> to leave]

4) Jin wants <sub>ACC</sub> [<sub>TP</sub> Michael <sub>ACC</sub> to return the watch].

5) Sun arranged [<sub>CP</sub> *for* <sub>ACC</sub> him <sub>ACC</sub> to return the watch].

Nonfinite T does not assign case, so the subject must get case (have its [case] feature checked) in some other way.

## Seems

Now, we'll turn to another kind of embedded nonfinite clause.

- Charlie seems [to dislike bees].

This looks a little bit like:

- Charlie tried [to sneak away].

Which is really:

- Charlie tried [PRO to sneak away].

- *Charlie* is the Agent of *try*.

- PRO (=Charlie) is the Agent of *sneak*.

- So, what about *Charlie seems to dislike bees*? What  $\theta$ -roles go to *Charlie*?

## Charlie seems to receive (just) one $\theta$ -role

Seems can also embed a finite clause, so consider the pair:

- 1) Charlie seems to dislike bees.
- 2) It seems that Charlie dislikes bees.

The *it* in the second sentence is the same *it* we find in *It rained*. *It* does not get a  $\theta$ -role, because *rain* doesn't have any  $\theta$ -roles. We only have *it* there because sentences need subjects (EPP: T has a [ $uD^*$ ] feature).

So what  $\theta$ -roles does *seem* assign?

## Seem seems to assign (just) one $\theta$ -role.

What *seem* (and *appear*) mean when paired with an embedded sentence is that the proposition expressed by the embedded sentence appears true.

There's only one participant in a seeming, the Proposition.

- 1) It seems [that *seem* assigns one  $\theta$ -role].

So, *seem* assigns a Proposition  $\theta$ -role (structurally, to its sister, the CP daughter of V'), and nothing else (hence, *it* is needed to check the EPP feature).

## Back to Charlie

- 1) It seems [that Charlie dislikes bees].
- 2) Charlie seems [to dislike bees].

These two sentences mean basically the same thing.

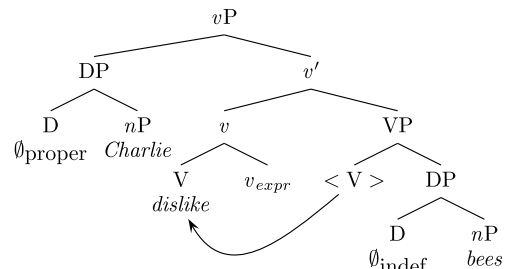
*Dislike* assigns two  $\theta$ -roles, we might say Experiencer and Theme.

It's the same verb *dislike* in both sentences. So, we presume that the bottom of both trees will look the same...

## Disliking bees

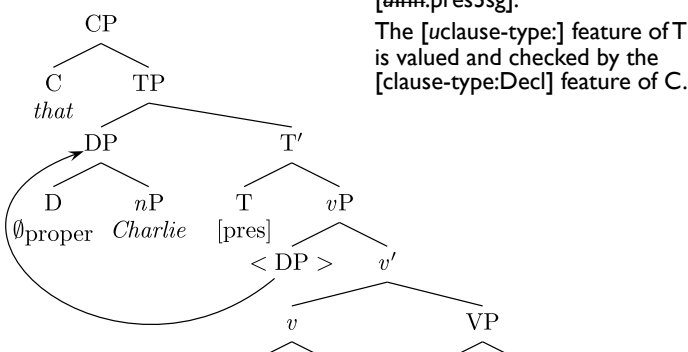
Starting with *It seems that Charlie dislikes bees*, we would build a vP that looks like this:

- V (*dislike*) assigns a Theme  $\theta$ -role to the DP *bees*.
- $v_{\text{Experiencer}}$  assigns an Experiencer  $\theta$ -role to the DP *Charlie*.



## Disliking bees

And then we add T and C to get *that Charlie dislikes bees*...



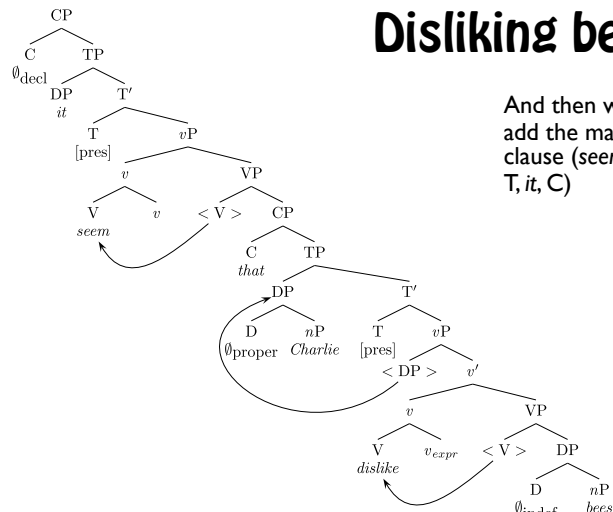
The [*case*] feature of *Charlie* is valued and checked by the [*nom*] feature of T.

The [*uInfl:*] feature of *v* is valued and checked by T: [*uInfl:pres3sg*].

The [*uclause-type:*] feature of T is valued and checked by the [*clause-type:Decl*] feature of C.

## Disliking bees

And then we add the main clause (*seem*, *v*, T, *it*, C)



- Does *Charlie* get a  $\theta$ -role from *seem*?
- Well, no. *Seem* only assigns the one  $\theta$ -role.
- So, unlike in *Charlie tried [PRO to elude the bees]*, we have as many DPs as we have  $\theta$ -roles.

**Disliking bees**

- So, what  $\theta$ -role does *Charlie* get?
- Still *seem* to be the Experiencer of *dislike*.
- So, suppose that *Charlie* starts out in the same place, SpecVP.
- But now, after building *vP*, we add a nonfinite T...

**Disliking bees**

- The  $[uInfl:]$  feature of *v* is valued and checked by T:  $[uInfl:none]$ .
- Nonfinite T has no  $[uclause-type:]$  feature.**
- The  $[case]$  feature of *Charlie* is **still unchecked**, since nonfinite T has no case feature.

**Disliking bees**

- Can we add a C to this?
- Let's assume **not**, by the following reasoning:
- The only C that is compatible with a nonfinite T is  $\emptyset_{NULL}$ , that assigns null case to PRO. *Charlie* is not PRO, so it can't get null case. So, this is just a TP, not a CP.

**Disliking bees**

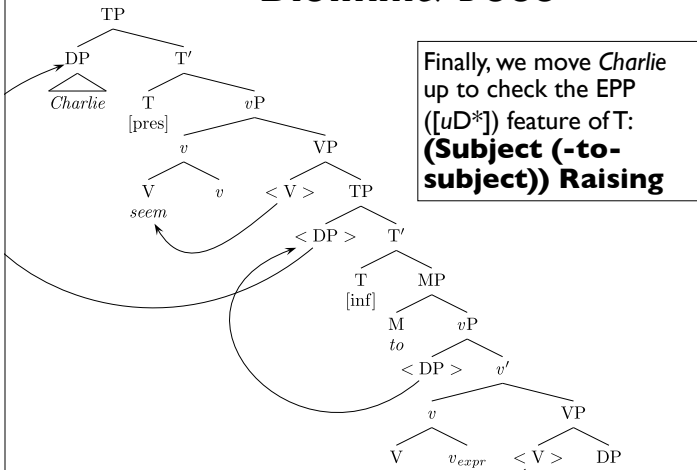
- So, we add *seem*, taking our TP (*Charlie to dislike bees*) as its Proposition complement.

**Disliking bees**

- We add T...
- Charlie* has  $[case]$  to check.
- Checked ( $[nom]$ ) by T
- T has  $[nom]$ ,  $[uD^*]$ , and  $[u\phi:]$  features to check.
- $[nom]$  checked valuing case on *Charlie*.  $[u\phi:3sg]$  matches  $[\phi:3sg]$  feature on *Charlie*.  $[uD^*]$  remains.
- seem* (*v*) has  $[uInfl:]$  to check  $[uInfl:pres3sg]$ , valued by  $[tense:pres]$  and  $[u\phi:3sg]$  on T.

**Disliking bees**

## Disliking bees



## Idioms

Recall our idea about idioms: For something to have an idiomatic interpretation (an interpretation not literally derivable from its component words), the pieces need to be very close together when initially Merged.

1) Ortega took a dive.

Now, we have idiomatic interpretations here:

2) It seems that the jig is up.

3) It seems that the cat is out of the bag.

4) It seems that the cat has your tongue.

## Idioms

If pieces of the idiom move away after the original Merge, we can still get the idiomatic interpretation:

- 1) [The cat]<sub>i</sub> seems <sub>t<sub>i</sub></sub> to have your tongue.
- 2) [The cat]<sub>i</sub> seems <sub>t<sub>i</sub></sub> to be out of the bag.
- 3) [The jig]<sub>i</sub> seems <sub>t<sub>i</sub></sub> to be up.

The important thing is that they be originally Merged together (the  $\theta$ -role needs to be assigned by the predicate to the noun). Compare:

- 4) [The cat] tried to have your tongue.
  - 5) [The cat] arranged to be out of the bag.
- (What's different? Why no idiomatic meaning?)

## Other raising verbs

So far, we've only talked about *seem*, but there are a couple of other raising verbs as well.

- [The cat]<sub>i</sub> is likely [<sub>TP</sub> <sub>t<sub>i</sub></sub> to be out of the bag].
- [The cat]<sub>i</sub> appears [<sub>TP</sub> <sub>t<sub>i</sub></sub> to have his tongue].
- [The jig]<sub>i</sub> proved [<sub>TP</sub> <sub>t<sub>i</sub></sub> to be up].
- [The cat]<sub>i</sub> began [<sub>TP</sub> <sub>t<sub>i</sub></sub> to get his tongue].

What these verbs (in this use, anyway) have in common is that they have no external  $\theta$ -role and an internal Proposition  $\theta$ -role.

## Object control

One last type of nonfinite complement, those that appear with verbs like *persuade*.

- 1) Sayid persuaded Kate to stay.
- Once again, we think through the “participants” to get a handle on whether we have enough DPs for the  $\theta$ -roles.

*Stay* has only one participant, *Kate*.

*Persuade* has three—the one doing the persuading (*Sayid*), the one being persuaded (*Kate*), and the proposition in question ([<sub>TP</sub> *Kate to stay*]).

So we *don't* have enough DPs for the job—*Kate* appears to be playing two roles (one from *stay*, one from *persuade*). This sounds like a job for PRO.

## Object control

- Sayid persuaded Kate to stay.
- Sayid persuaded Kate [<sub>CP</sub>  $\emptyset_{\text{NULL}}$  PRO<sub>NULL</sub> to stay]

Again we have PRO, as we do in

- Kate tried [<sub>CP</sub>  $\emptyset_{\text{NULL}}$  PRO<sub>NULL</sub> to see]

But in *Sayid persuaded Kate to stay*, what “controls” PRO?

## Persuasion and promises

- Not all ditransitive control verbs are *object control verbs*.
  - Though all object control verbs are ditransitives.
    - 1) David persuaded Sherry [ PRO to leave ]
    - 2) David promised Sherry [ PRO to run for office ]
    - 3) Chase asked Jack [ PRO to be allowed to continue ]
    - 4) Chase asked Jack [ PRO to get off his case ]
  - Whether a verb is a subject control verb or an object control verb is an individual property of the verb. *Promise* is recorded in our lexicon as a subject control verb, *persuade* as an object control verb.

## ECM verbs

ECM verbs also take infinitive complements, but with an overt subject (that checks accusative case with the ECM verb).

- Tony found [ Michelle to be charming ]
  - Tony found [ that Michelle was charming ]
- Jack expected [ Tony to take the day off ]
  - Jack expected [ that Tony would take the day off ]

## Raising verbs

Raising verbs have no Agent/Experiencer in SpecvP, and take a nonfinite complement. The subject of the embedded complement moves into their subject position:

- Jack seems [ <Jack> to be tired ]
  - It seems [ that Jack is tired ]
- The time appears [ <the time> to have expired ]
  - It appears [ that the time has expired ]
- The President happened [ <the P.> to have a pen ]
  - It happened [ that the President had a pen ]

## Verb classes in summary

ECM verbs, e.g., *believe*, *find*

- I believe [TP him to have told the truth].
- We find [TP these truths to be self-evident]. (or *hold*)

Subject control verbs, e.g., *attempt*, *promise*

- Kim<sub>k</sub> promised Jack [CP Ø<sub>NULL</sub> PRO<sub>k</sub> to avoid kidnapers].
- Kim<sub>k</sub> will try [CP Ø<sub>NULL</sub> PRO<sub>k</sub> to avoid kidnapers].

Object control verbs, e.g., *convince*, *ask*

- I convinced her<sub>k</sub> [CP Ø<sub>NULL</sub> PRO<sub>k</sub> to drive to work].
- Jack asked Kim<sub>k</sub> [CP Ø<sub>NULL</sub> PRO<sub>k</sub> to avoid kidnapers].

Raising verbs, e.g., *appear*, *seem*

- I appear [TP <I> to have missed the bus].
- Jack seems [TP <Jack> to need a nap].

## One more argument for PRO

**Principle A:** An anaphor must be bound in its binding domain.

- Jack hoped [ that Kim would explain herself ]
- Jack wanted [ Kim to explain herself ]
- \*Jack hoped [ that Kim would call himself ]
- \*Jack wanted [ Kim to call himself ]
- Jack hoped [ PRO to see Kim ]
- Jack hoped [ PRO to exonerate himself ]

**Principle B:** A pronoun must be free in its binding domain.

- Jack hoped [ that Chase would exonerate him ]
- Jack wanted [ Chase to exonerate him ]
- Jack hoped [ PRO to exonerate him ]

## Before we finish embedded clauses...

Embedded clauses can also be modificational adjuncts.

- Pat ate lunch [PP on the hill ]  
[PP by the tree ] [PP in the rain ].

To express reasons and times, we also find whole CPs adjoined to our clause:

- We discussed adjuncts [CP before we finished our discussion of embedded clauses]

There's nothing really new here, except the observation that *before* can have category C.

Just like *after*, *while*, *during*, etc.

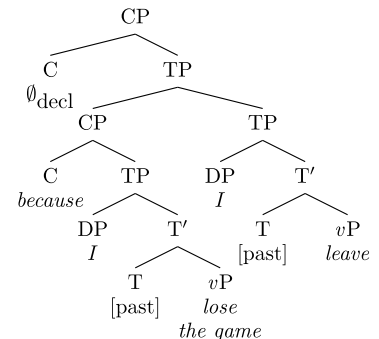
## Adjunct clauses: where do they go?

- Pat cleaned poorly yesterday.
- #Pat cleaned yesterday poorly.
- Pat cleaned poorly [before Chris arrived].
- #Pat cleaned [before Chris arrived] poorly.
- Pat cleaned [before Chris arrived] yesterday.
- Pat cleaned yesterday [before Chris arrived].
- Pat heard that [before Chris arrived] [Tracy cleaned the sink].
- Pat heard [before Chris arrived] that [Tracy cleaned the sink].

## because clauses

Reason clauses are also clausal adjuncts.

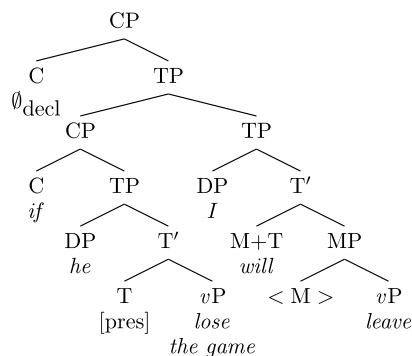
- *Because I lost the game, I left.*
- *I left because I lost the game.*



## if clauses

If clauses are like *because* clauses.

- *If he loses the game, I will leave.*
- *I will leave if he loses the game.*



## While thinking about syntax

- Before finishing his homework, Ike watched TV.
- *Finish*: transitive (Agent, Theme)
  - Agent: ?
  - Theme: *his homework*
- *Watch*: transitive (Agent, Theme)
  - Agent: *Ike*
  - Theme: *TV*
- *Ike watched TV* is the main clause.
- *Before finishing his homework* is a modifier.

## While thinking about syntax

- Before finishing his homework, Ike watched TV.
- Intuitively, it is Ike who was (at least at risk of) finishing his homework.
  - We are not going to have any particular explanation for exactly *how* the interpretation tied to the subject comes about, but it seems to be.
  - Before he finished his homework, Ike watched TV.

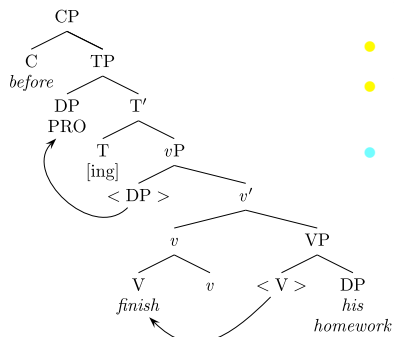
## While PRO thinking about syntax

- Before PRO finishing his homework, ...

This PRO does seem to be controlled by the subject somehow (*\*While raining, Ike dashed to the store*).

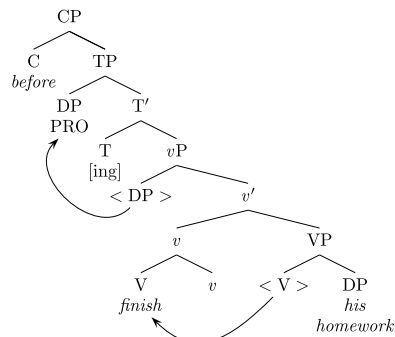
The form *finishing* is not the progressive, it is the present participle, a nonfinite form.

## Before PRO finishing...



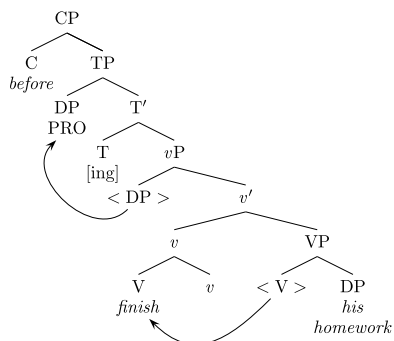
- T is not finite, so no [tense] feature.
- It is not the *infinitive* either.
- We'll say this form has the [ing] feature.
- The [**uInfl**] feature of v is matched, valued, and checked by the [ing] feature, resulting in *finishing*.

## Before PRO finishing...



- How does PRO get its case feature checked?
- Some relevant sentences:
  - **Before he finished his homework, Ike watched TV.**
  - **Before Ike's finishing of his homework, tension was high.**

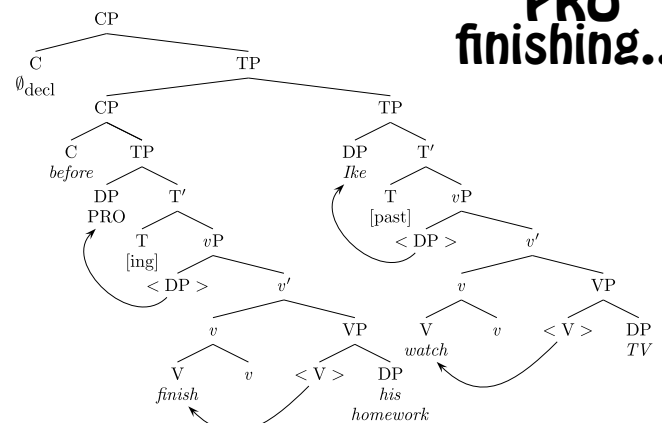
## Before PRO finishing...



- Given this, the best hypothesis seems to be that the [ing] T also has a [**null**] feature, checking case with PRO just like finite T checks nominative case with other subjects.
- [**null**] = [**ucase:null**]

The only thing left is to attach the modifier into the main clause...

## Before PRO finishing...



## On gerunds

There is yet another form of the verb that shows up with *-ing* on the end of it in English: the **gerund**.

A gerund is basically a verb acting as a noun—we've been looking at this kind of deverbal noun already. One way to tell whether you are looking at a gerund (noun) or not (a verb) is to see whether it is modified by adjectives or adverbs:

- Before his quick(\*ly) cooking of the t(of)turkey...
- Before quick-\*(ly) finishing his homework...