**Jill fell is a declarative**

- But hold on a minute. *Jill fell*, just as its own sentence (not embedded) is also declarative.
- *Cf. Did Jill fall?*
- So, we’ll suppose that since the function of C is to mark clause type, there’s a C in simple sentences as well.
- The C that heads the whole structure has somewhat special properties. Declarative C in that position is never pronounced. Interrogative C is not pronounced as a word, but makes its presence known by causing movement.

**SAI in YNQs**

- In yes-no questions, the subject and auxiliary “inert” (Subject-Auxiliary Inversion):
  1) Scully will perform the autopsy.
  2) Will Scully perform the autopsy?
- Assuming everything we’ve got so far:
  - T has a [\(\nu^{D}t\)] (EPP) feature to check, so Scully is in SpecTP.
  - The question is an interrogative.
  - (Unpronounced) C is to the left of TP.
- So what must be happening in yes-no questions?

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**that or not that**

- C specifies the clause type; *that* indicates a declarative clause. Why then are both of these good?
  1) Jack claimed that Jill fell.
  2) Jack claimed Jill fell.
    - In French, Spanish, probably most other languages you don’t have the option to leave out the C.
  3) J’ai dit qu’elle était malade
    - I’ve said *that* she was ill
      ‘I said that she was ill’
  4) *J’ai dit elle était malade
    - Claim doesn’t embed interrogatives.
  5) *Jack claimed if Jill fell.
    - So Jill fell is declarative in *Jack claimed Jill fell.*

**Ø**

- Where does that leave us?
  1) Jack claimed Jill fell
- Claim only takes declarative complements.
- Jill fell is declarative.
- Clause type is a feature of C.
- Thus: There is a declarative C.
  - You just can’t hear it.
- English has two declarative complementizers. One is *that*, one is Ø. In most cases, either one works equally well.

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**CAS LX 522 Syntax I**

Week 11b.
Raising, etc.
(8.2.6-8.4)

**CP**

- C is the head of CP.
- Saying this also provides a natural explanation of why in SOV languages, complementizers are generally on the right.

1) Hanako-ga [Taroo-ga naita to] itta.
   H.- nom T. -nom cried that said
   ‘Hanako said that Taro cried.’

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**CAS LX 522 Syntax I**

Week 11b.
Raising, etc.
(8.2.6-8.4)
**T-to-C**

- A natural way to look at this: **T is moving to C**.
- Just like V moves to v, or like Aux (Perf, Prog, or Pass) moves to T, or like N moves to n.
- In (main clause) questions, T moves to C.

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**A simple declarative clause**

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**YNQ**

- If T is just a past or present tense marker, v is no longer the head of T’s sister. So we pronounce *do*:

  Did Scully perform the autopsy?

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**Embedding questions**

- So, you can embed declaratives and you can embed questions
  1. I heard (that) Jill fell.
  2. I asked if Jill fell.
- Notice that the main clause is different:
  - If the topmost C is interrogative, we get SAI. If the topmost C is declarative, it is pronounced Ø.
  - If an embedded C is declarative, it can be pronounced either as Ø or as that. If an embedded C is interrogative, C is audible (if) and no SAI.
  - So, T moves to C only in main clause interrogatives. [uclause-type:] is strong only when valued as Q by a main clause C.
Nonfinite clauses

- Some verbs embed finite declaratives, as we have seen: *I heard (that) Jill fell.*
- There are other verbs that embed nonfinite clauses. These come in a few types, but we’ll start with the *try* type.
  1) Scully tried to perform the autopsy.
- This is two clauses: Scully tried something, and what it was was to *perform the autopsy.*

**θ-roles**

1) Scully performed the autopsy.
2) Scully tried to perform the autopsy.

- The verb *perform* has an Agent and a Theme, here *Scully* and the *autopsy,* respectively.
- The verb *try* also has two θ-roles, an Agent (the one trying) and a Theme (the thing attempted). Suppose that the Theme of *try* is *to perform the autopsy* here.

**θ-roles**

1) Scully performed the autopsy.
2) Scully tried to perform the autopsy.

- In the second sentence, *Scully* is both the one trying and, if you think about it, the one performing the autopsy. The same individual is the Agent of both.
- Agent θ-roles are assigned to the DP that is Merged into Spec vP.
- **However:** You are not allowed to assign two different θ-roles to the same DP. Otherwise, it should be possible for *Scully admires* to mean *Scully admires herself.*

**PRO**

1) Scully tried to perform the autopsy.

- So, we have something of a problem here. We need an Agent DP in the vP for *perform,* and an Agent DP in the vP for *try.* But it appears as if there is only one DP around, *Scully.*
- What to do? Once again gritting our teeth, we resolve ourselves to the fact that we need two DPs and can only see one— therefore, there must be a DP we can’t see.
- The DP we can’t see, we call **PRO**.

**Control**

1) Scully tried [*PRO to perform the autopsy*].

- **PRO** is a DP that is the Agent of *perform,* *Scully* is a DP that is the Agent of *try.*
- It is impossible to actually *pronounce* an Agent for *perform.*
2) *Scully tried [*Mulder to perform the autopsy*].
- The PRO Agent of *perform* must be interpreted as being the same person as the Agent of *try.*
- **PRO** is a little bit like an anaphor in this respect; this fact is similar to the fact that *herself* in *Scully admires herself* must refer to *Scully.*
- This obligatory co-reference goes by the name **control.** *Scully controls** PRO. Sentences with PRO in them are often called **control clauses.**

**PRO**

- So why is it impossible to say this?
  - *Scully tried [*Mulder to perform the autopsy*].
- The answer we’ll give is that **nonfinite T (to)** does not have a case feature.
- Finite T has a [nom] feature which matches, values, and checks the [case] feature of the subject, checking itself in the process.
- Nonfinite T has no case feature at all, so *Mulder* would be left with its case unchecked.
Null case

- As for PRO, it is a DP so it has a [case] feature. If Mulder can’t get its case checked by the nonfinite T, how does PRO get its case checked?
- A standard (and perhaps less than completely elegant) way to look at this:
  - **PRO is special**, it can only “show up” with “null case” ([u-case: null]).
  - **Null case is special**, it is only allowed on PRO.
  - **Control clauses are special**, they are introduced by a null C that has a [null] case feature, which can check the [case] feature on PRO.

Try

- So, 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?
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/Ø 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 Ø).
  1) Shannon claimed [CP that she could catch a fish].
  2) Shannon claimed [CP Ø she could catch a fish].
• Embedded nonfinite clauses have to as T, and can be CPs or bare TPs—the distinction is determined by case properties of the verb.
  3) Michael wants [CP Ø null PRO null to leave]
  4) Jin wants [TP Michael ACC to return the watch].
  5) Sun arranged [CP for ACC him ACC 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 θ-roles go to Charlie?
Charlie seems to receive (just) one θ-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 θ-role, because rain doesn't have any θ-roles. We only have it there because sentences need subjects (EPP: T has a [uD^θ] feature).
- So what θ-roles does seem assign?

Seem seems to assign (just) one θ-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 θ-role].
- So, seem assigns a Proposition θ-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 θ-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 θ-role to the DP bees.
  - \( v^{\text{Experiencer}} \) assigns an Experiencer θ-role to the DP Charlie.

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 [uinf:] feature of v is valued and checked by T: [uinf:pres3sg].
- The [uclause-type:] feature of T is valued and checked by the [clause-type:Decl] feature of C.

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

Disliking bees

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

Disliking bees

- The [uInf:] feature of v is valued and checked by T: [uInf: 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

- 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], [vD*], and [uϕ:] features to check.
- seem (v) has [uInf:] to check
  - [uInf: pres3sg], valued by [tense: pres] and [uϕ:3sg] on T.
Disliking bees

Finally, we move Charlie up to check the EPP ([uD*]) feature of T: (Subject (-to-subject)) Raising

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.

Other raising verbs

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

• [The cat], is likely [TP t, to be out of the bag].

• [The cat], appears [TP t, to have his tongue].

• [The jig], proved [TP t, to be up].

• [The cat], began [TP t, to get his tongue].

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

There seems…

• We also find seem with there.

1) Vincent seems to be lost.

2) It seems that Vincent is lost.

3) There seems to be a dog in the woods.

• It is an expletive subject that checks both the EPP and case features of T. There checks only the EPP feature of T (a dog checks T’s case feature).

*There seems a man to be in the garden.

1) There seems to be a man in the garden.

• There appears in SpecTP, satisfying the EPP feature.

• There are two TPs here, and each TP has/had an EPP feature.

• [TP There seems [TP to be a man in…]]

• So, there must have first Merged into the lower SpecTP and then moved to the upper SpecTP.

• [TP There seems [TP <there> to be a man in…]]
*There seems a man to be in the garden

- \[\text{TP There seems [}\text{TP there} | \text{to be a man in...]}\]
  - This makes sense, both EPP features are satisfied, a man gets case from (the higher, finite) T.
  - But think back to when we were building the structure and had reached this point:
    - \[\text{TP to be a man in the garden}\]
  - We now have to satisfy the [\text{uD}^{*}] feature of T. We have \text{there} lying around in our numeration. But if we didn’t, we could have just moved a man to SpecTP to satisfy the EPP.

- \[\text{TP a man to be }<\text{a man}> \text{ in the garden}\]

After doing this, we can continue to add on seem, v, T, and then insert there into the higher SpecTP, yielding:

- \[\text{TP there seems [}\text{TP a man to be }<\text{a man}> \text{ in...]}\]

- \[\text{TP there seems [}\text{TP a man to be }<\text{a man}> \text{ in...]}\]

But this is ungrammatical. So what goes wrong?

- The difference between \text{There seems a man to be in the garden} and \text{There seems to be a man in the garden} is at the point where we’ve got \[\text{TP to be a man in the garden}\]. Here there’s a choice: Move a man or Merge there.

- The usual approach here is to say \text{Merge is preferred to Move}, so if you have the choice, you always Merge (it’s “easier”).

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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.
  - \text{Stay} has only one participant, Kate.
  - \text{Persuade} has three—the one doing the persuading (Sayid), the one being persuaded (Kate), and the proposition in question (\[\text{TP Kate to stay}\]).

- 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.

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Classes

- So, we have the following classes:
  - ECM verbs, e.g., believe
    - I believe [\text{TP him to have told the truth}].
  - Subject control verbs, e.g., attempt
    - \(k\) attempted [\text{CP null PRO} \text{k to drive to work}].
  - Object control verbs, e.g., convince
    - I convinced her [\text{CP null PRO} \text{k to drive to work}].
  - Raising verbs, e.g., appear
    - \(k\) appear [\text{TP k to be low on time}].