Small clauses

Last time we talked about “small clauses” like:

- I find [Bill intolerable].
- I consider [Bill incompetent].
- I want [Bill off this ship]. (Immediately!)

Let’s talk about a few more aspects of small clauses and infinitival complements that might make the discussion more convincing.

Small clauses vs. infinitival complements

- All of the small clause examples from last time seem to be able to be paraphrased as examples with infinitival (to be) complements as well.

  - I find [AP Bill intolerable].
  - I find [IP Bill to be intolerable].

  - So, we might wonder if small clauses are really just infinitival complements with a “silent” to be.

To be or not to be

- Suggestive against the idea that small clauses are really camouflaged IPs, it turns out that there’s a difference in meaning between the “small clauses” and “infinitival complements”.

  - I found the table to be three-legged.
  - I found the table three-legged.
  - I found him to be 6-feet tall.
  - I found him 6-feet tall.
  - I found her to be amused by cartoons.
  - I found her amused by cartoons.

To be or not to be

- I found the chair comfortable.
- I found the table three-legged.

- The semantic distinction is very subtle, but it feels like I found DP AP means that the only evidence for DP being AP is a subjective judgment, not independently determinable. Still, there is a difference.

Small clauses

- Also, not all small clauses are of this sort, though. Consider:

  - I saw [him fall].
  - I saw [them upset].
  - I saw [her in the garden].

- There’s no to be missing in any of these.
Small clauses

- So, I saw her in the garden would look like this.

Bill finds me to be intolerable.

Passives again

- Another thing that argues in favor of the “ECM” analysis of how embedded subjects of small clauses and infinitival subjects check Case features:

Passives again

- The sandwich was eaten.

In the passive, the verb has had its external \(\lambda\)-role removed (and with it, the ability to check objective Case), so the Theme argument moves into Spec IP, satisfying the EPP (and checking Case).

And, speaking of dolphins...

- I consider them to be intelligent.

Consider assigns two \(\lambda\)-roles, the external Experiencer \(\lambda\)-role, and the internal Proposition \(\lambda\)-role.

I checks Nom Case with the subject, consider checks Obj Case with them.
And, speaking of dolphins...
- They are considered to be intelligent.
- Passivizing consider removes the external Experiencer [\-]role, and the ability to check Obj Case.

Giving trees to ditransitives
- You may recall our discussion of \-theory, where we triumphantly classified verbs as coming in three types:
  - Intransitive (1 \-role)
  - Transitive (2 \-roles)
  - Ditransitive (3 \-roles)
- Theta roles go to obligatory arguments, not to adjuncts.

Giving trees to ditransitives
- We know what to do with transitive verbs.
- But what do we do with ditransitive verbs? We’re out of space!

Giving trees to ditransitives
- Fantastic, except that these things just don’t fit together.

Problems continue...
- I showed Mary to herself.
- *I showed herself to Mary.
- I introduced nobody to anybody.
- *I introduced anybody to nobody.

- This tells us something about the relationship between the direct and indirect object in the structure. (What?)
Problems continue...

- The OBJ c-commands the PP. But how could we draw a tree like that?
- Even if we allowed adjuncts to get \( \bar{\alpha} \)-roles, the most natural structure would be to make the PP an adjunct, like this, but that doesn’t meet the c-command requirements.

Some clues from idioms

- Often idiomatic meanings are associated with the verb+object complex—the meaning derives both from the verb and the object together.
- We take this as due to the fact that the verb and object are sisters at DS.
- Bill threw a baseball.
- Bill threw his support behind the candidate.
- Bill threw the boxing match.

Idioms in ditransitives

- In ditransitives, it seems like this happens with the PP.
  - Beethoven gave the Fifth Symphony to the world.
  - Beethoven gave the Fifth Symphony to his patron.
  - Lasorda sent his starting pitcher to the showers.
  - Lasorda sent his starting pitcher to Amsterdam.
  - Mary took Felix to task.
  - Mary took Felix to the cleaners.
  - Mary took Felix to his doctor’s appointment.

So V and PP are sisters...

- Larson (1988) took this as evidence that the V is a sister to the PP at DS.
- Yet, we see that on the surface the OBJ comes between the verb and the PP.
- Mary sent a letter to Bill.
- Where is the OBJ? It must c-command the PP, remember. Why is the V to the left of the OBJ at SS?

Where’s the V? Where’s the OBJ?

- We already know how to deal with this kind of question if what we’re talking about is the verb coming before the subject in Irish, or the verb coming before adverbs in French...
- The answer: The verb moves over the OBJ. But to where?

Where’s the V? Where’s the OBJ?

- Larson’s answer to this is obvious, in retrospect. If we’re going to have binary branching and three positions for argument XPs (SUB, OBJ, PP), we need to have another XP above the VP.
- Since the subject is in the specifier of the higher XP, that must be a VP too.
- Ditransitive verbs really come in two parts. They are in a “VP shell” structure.
Where’s the V? Where’s the OBJ?

- The higher verb is a “light verb” (we’ll write it as \(vP\) to signify that)—it’s contribution is to assign the \(\alpha\)-role to the subject. The lower verb assigns the \(\alpha\)-roles to the OBJ and the PP.
- Bill gave a book to Mary and a record to Sue.
- Bill gave \([vP, a\text{ book} t_i, \text{ to Mary}]\) and \([vP, \text{ a record} t_i, \text{ to Sue}]\).

Sending a letter to Bill

- So that covers \textit{Mary sent a letter to Bill}, by saying there are two VPs, \textit{send} head-moves from the lower one to the upper one, over the OBJ.
- Mary sent, a letter \(t_i\), to Bill.
- Note: You can also say \textit{Mary sent Bill a letter}, which is one of the major things Larson was concerned about. Radford provides an analysis of this in the book, we’ll come back to it.

little \(v\)...

- So this is the structure that we came up with to get the word order right in a binary-branching tree.
- John gave a book to Mary.
- We determined there must be a “little \(v\)”, a light verb, to which the V moves. This little \(v\) assigns the Agent \(\alpha\)-role. So English has a \(v\) in its lexicon that assigns the Agent \(\alpha\)-role.

Unaccusatives vs. unergatives

- Recall from a week ago that there are two types of single-argument (intransitive) verbs in terms of their theta grid with respect to whether they have an external \(\alpha\)-role to assign or not.
- Unaccusatives: Have one, internal \(\alpha\)-role.
  - Sometimes called “ergative” too
  - Fall, sink, break, close
- Unergatives: Have one, external \(\alpha\)-role.
  - Walk, dance, laugh

Last week’s tree for “Bill fell”

- Let’s go back and consider VP shells a bit in connection with unaccusatives.
- The ice melted.
- The boat sank.
- The door closed.
- The ice, the boat, the door are all Themes, suggesting that the verbs are unaccusative—the argument starts in object position.
VP shells

- So far, so good.
- Now, Bill melted the ice.
- The ice is still Theme. The verb is still melt.
- Uniform Theta Assignment Hypothesis (UTAH): Two arguments which fulfill the same thematic function with respect to a given predicate must occupy the same underlying position in the syntax.
- So the ice must still be a complement of the verb underlyingly.

VP shells

- Bill melted the ice.
- So, something like this, where the main verb moves up to the light verb (which we had evidence for in ditransitives).
- Later, Bill will move to SpecIP to check Case and satisfy the EPP.
- Why does V move to v? We'll assume that it does this for a reason analogous to why V moves to I (for French verbs, say). Might be universal, actually: “v needs a V to move to it”.

VP shells

- In Bill melted the ice what have we done?
- We've added a causer, an agent.
- Bill caused [the ice to melt].
- “Bill was the agent of an ice-melting.”
- We've already supposed that the light verb v assigns the Agent [-] role in ditransitives...
- It isn't much of a jump to think of v as actually having a contribution to the meaning, something like CAUSE.

VP shells

- Note. Even though v may carry a “causative” meaning, this does not mean that it is synonymous with the English word “cause”. There is a difference in the “directness” of the causal connection. What it really seems closest to is “Agent”.
- The water boiled.
- Bill boiled the water
  - Bill, I, v+boil the water
  - Bill caused the water to boil
  - Bill cause TP

Avoiding redundancy

- So, we have v, which assigns an Agent [-] role.
- We have Agent [-]-roles in clauses other than Bill sank the boat and Bill gave a boat to Edward.
- We also have an Agent [-] role in sentences like Bill ate the sandwich.
- Are there two ways to assign the Agent [-] role?
- What if v is the way the Agent [-] role is assigned?
- What would Bill ate the sandwich look like?

Bill ate the sandwich

- Well, we already saw essentially what it would look like. It looks just like Bill melted the ice.
- v assigns Agent to Bill, V (eat) assigns Theme to the sandwich.
- Also note: The subject is still in “SpecVP” except that we’ve sharpened our picture of what “VP” is. A “VP” with an Agent is really a vP and a VP.
Bill lied.
- In fact, things get weirder...
- Consider Bill lied.
- That’s got an Agent, so it’s got a v.
- So, it could look like this.
- But lie is really (also?) a noun, right? Is this a coincidence?
  - (How about Bill danced, Bill walked, Bill sneezed, ...)

Bill lied?
- One proposal out there about this kind of verb is that it really is built from the noun.
- That is, we would have v+N, which would come out to mean something like ‘Bill was the agent of a lie.’
- If that’s right, it means v really is its own thing, and moreover, it’s responsible for giving these verbs their verby nature.

Radford rolling the ball down the hill
- Radford introduces the idea of v with the sentences We rolled the ball down the hill and The ball rolled down the hill.
- Roll is an unaccusative verb in The ball rolled. Like The ice melted or Bill fell.

Radford rolling the ball down the hill
- For The ball rolled down the hill, we need to add a PP, which Radford does this way.
  - The ball is still getting the only [x]-role that roll has.
  - But note that it is now in the specifier of VP.

Radford rolling the ball down the hill
- If we allow the ball to get the Theme [x]-role in the complement of V in The ball rolled and the specifier of VP in The ball rolled down the hill, then we have to think about about what UTAH is really supposed to mean.

Radford rolling the ball down the hill
- Let’s think of it this way: For a V that assigns a Theme [x]-role, the first DP Merged with it gets the Theme [x]-role.
  - The PP down the hill is Merged before the ball, but it isn’t a DP.
In fact, we also supposed that the Theme \( \Theta \)-role was assigned to the specifier of VP in \textit{Bill gave a book to Mary}.

The limited evidence we have so far seems to suggest that PP's are Merged first if there is a PP to be Merged. (Notice too that in \textit{Bill gave a book to Mary}, the PP is getting a \( \Theta \)-role, but it is still Merged first)

Uniform Theta Assignment Hypothesis (UTAH): Two arguments which fulfill the same thematic function with respect to a given predicate must occupy the same underlying position in the syntax.

So, the “same underlying position in the syntax” is really to be understood as being the same from the perspective of Merge—e.g., the first DP Merged with the predicate.

In this connection, we might now be able to understand a little bit about \textit{Bill gave Mary a book}.

Notice that here, there’s no PP, and the order of the arguments appears to be reversed. But maybe it still satisfies the UTAH with respect to the Theme \( \Theta \)-role, since the Theme is still the first DP Merged with V.

(What to say about the Goal is less clear—not the first DP?)