

[SQUEAKING]

[RUSTLING]

[CLICKING]

NORVIN All right. So I think this is our last day for semantics. So we're going to do a grab bag of semantics-y topics today,
RICHARDS: and then we will pass on in to other topics starting next week.

Last time, we ended on a cliffhanger. So let me remind you where we were. We said-- here we are with guards and buildings again. And we said that this sentence was ambiguous.

So "Two guards seemed to me to be standing in front of every building" has the two familiar readings, the one where looks to me like every building has two guards, and the wacky reading where I believe there are two very large guards who are guarding all the buildings at once. You could have both of those readings. And then we had also convinced ourselves that that ambiguity goes away in this second sentence.

So "Two guards seemed to themselves to be standing in front of every building" can only mean-- this belongs to somebody-- can only mean that there are two guards who have a hallucination in which they are very large. Or there's something else you could imagine it meaning. It could mean for each building, there are two guards who think that they are standing in front of it.

That would, in a way, be more alarming. There would be more guards who had some kind of psychological problem. But they at least wouldn't be believing that they are impossibly large guards, just that they believe they're on duty. [INAUDIBLE].

AUDIENCE: If we arrange the second sentence and say, "In front of every building, two guards seem themselves to be standing," is that the same thing?

NORVIN What do people think? If I say, "In front of every building, two guards seem to themselves to be standing," to the
RICHARDS: extent that you can say that, does it mean-- can it mean there are two-- for each building, there are twice as many guards as there are buildings? Twice as many people who believe themselves to be guards as there are buildings? Yes?

AUDIENCE: I think that does stay closer to the two-- there are two guards for every building. But I could still interpret it as there are two very large guards or that the buildings all face each other.

NORVIN Yeah. I agree with you, actually, that it's-- I think it becomes ambiguous, I think, is what you're saying. So it gets
RICHARDS: the meaning that this doesn't have, but it still has this meaning. I think you're right about that. Yeah?

AUDIENCE: I don't know. Somehow, it does feel to lean towards the other--

NORVIN The other meaning.

RICHARDS:

AUDIENCE: More so than the top one for me.

NORVIN

Oh, I see what you mean. Yeah, the top one, it's easier to say, yeah, this is ambiguous. Yes. This is kind of reminiscent of when I was first showing you quantifier scope. We were talking about sentences like "Everyone in this room speaks two languages" and "Two languages are spoken by everyone in this room."

RICHARDS:

And I think convincing ourselves that whether you have the active or the passive has some kind of effect on which reading is easiest to get, and there's something similar going on here, I think, that there's certainly more to say than some sentences are ambiguous and others are not. So some sentences lean in the direction of one reading or another. There's a lot of work to do here, which we won't try to do.

This is almost the end of our acquaintance with quantifiers. But yes, there's lots of interesting topics to work on here. Did you have a question?

AUDIENCE:

Well, I was just going to say, rearranging that sentence seems to add extra ambiguity because now it now gives a sense of whether or not the guards are standing themselves. They could be sitting. They seem to themselves to be standing.

NORVIN

Oh. Oh. Oh. I didn't even think about that. Right. Right. Right. I was-- yes. Oh, gosh. I was thinking about the "seeming"-- "stand" as just a-- meaning be, basically. But you're right.

RICHARDS:

There's another way that things could seem and not be true. They could think that they're standing in front of the buildings, but actually they're lying down. These are guards with a different kind of problem. Yeah, good point. Yeah? So far so good?

All right. So ambiguity in the first example, and ambiguity going away in the second example. And Raquel thinks, and I think we decided to agree with her, that you can get the ambiguity back in that second kind of example by moving "every building." Let's put Raquel's point aside and just concentrate on these for a sec.

Remember way back when, we had the idea that a sentence like "Two guards seemed to be standing in front of every building" is ambiguous. Remember, we decided this ambiguity comes from the fact that "every building" can, but doesn't have to, undergo this operation of QR, quantifier raising, that gets it past two guards. And we also convinced ourselves that this operation of quantifier raising has some restrictions on how far it can go.

The evidence for that had to do with sentences like the last one on this slide. "Two guards think that I am standing in front of every building" isn't ambiguous. Doesn't mean-- so it can only mean there are two guards, two particular guards, who are having real problems who seem to see me in front of every building. It doesn't mean there are two guards who think I'm in front of building 32, and there are two other guards who think I'm in front of the Student Center, and there are two other guards who think that I'm in front of the library. It doesn't mean that.

So it only has the reading where "every building" hasn't undergone QR past "two guards." It only has the meaning where you interpret "two guards" first. It's like, there are two guards who have this property. They think that I'm standing in front of every building. It doesn't mean it's true of every building. The set of buildings and the set of things that two guards think that I am standing in front of has the following intersection.

Do people see that? So there's no ambiguity in that last example. And our story about why there's no ambiguity in that last example, this description of that fact was to say, OK, we're learning something about QR. QR can't-- when you have two guards that are standing in front of every building, "two guards" and "every building" are close enough that QR can reorder them, and you get ambiguity.

But in this one, "Two guards think that I'm standing in front of every building," "every building" can't QR that far. And then that gets us into question. So how far can QR go? How does it work? We got started on that question. Do people remember all this? This is all review. This might make sense. Did you have a question, Katrina?

AUDIENCE: Yeah. What does it mean that "two guards" can reconstruct back into the embedded clause?

NORVIN RICHARDS: Oh, OK. I'm sorry, I'm doing this slide out of order. So I'm talking about the last sentence. In the last sentence, there's no ambiguity, and we convinced ourselves that's because "every building" can't get out of that embedded clause. So question, what counts as a clause? How far can QR go?

The fact that there's ambiguity in "Two guards seem to be standing in front of every building," we said, we could have handled that in two different ways. Here, let me write that on the board. For some reason, there are-- here we go. There are many erasers on the board, but there is no chalk. I think someone is trying to send me a message.

So "Two guards seem to be standing in front of every building." So recall that for independent reasons, we thought that "two guards"-- in a sentence like this, "Two guards seem to be standing in front of every building," "two guards" is here, but it starts down here and moves. We have this NP movement that took things from embedded clauses and moved them into the subject of things like "seem" in order to satisfy the EPP was the story. So we have this operation and movement.

So now there's this open question. We want QR to be able to get "every building" past "two guards." But "two guards" is in two places. It's in the lower position. It's also in the higher position.

So we could say QR can go from here all the way to the beginning. That's a way of saying that embedded clause does not count as a clause. QR can get out of that kind of clause, that infinitival kind of clause.

But another kind of thing that we could say would be no, the reason this is ambiguous is that "every building" can get this far to the edge of the embedded clause. And so it can't, in fact, get this far. Can't get out of that embedded clause.

Basically, this involves saying QR can't escape TP. So it can't escape any kind of TP. Not a finite clause like the one in the last example here, "Two guards think I'm standing in front of every building," and also not an infinitival clause.

And we saw before some reasons to think that that's right, that the only reason this is ambiguous, it's not because "every building" can get out of an infinitive. "Every building" is stuck here. It can't get any higher than this. And the reason that this is ambiguous is that "two guards," yes, it's pronounced here, but it can be interpreted here via reconstruction.

Which is just a name for this mysterious fact. You can interpret things lower if they moved from lower positions. We saw some evidence for that idea before. I'm about to show you another bit of evidence for that idea. But is this much clear?

It's late in the semester. Probably almost nothing is clear anymore. It's spring outside. Yeah, it's very hard to make things clear. Do people want to ask questions about this? OK, all right.

So here's a new bit of ambiguity, a new bit of evidence that this is right, that this is the right way of handling the ambiguity for the first example in this slide, "Two guards seem to be standing in front of every building." So we'll say, the reason that's ambiguous is that QR, first of all, can't get out of TP. It can't get out of that embedded infinitival clause. The earliest it can get is here. So "to be standing in front of every building."

And the reason you have ambiguity there is that "two guards" has the option of being interpreted down here, this mysterious option that we've been seeing for movement, that you have the option of interpreting things as though they were lower than they actually are, as though they are still where they used to be. Here's the bit of evidence. "Two guards seem to themselves to be standing in front of every building," we decided that's not ambiguous. "Every building" can't take scope above "two guards."

Well, let's think about what would happen. I'm going to add "to themselves" here. We're fooling around with the possibility that the ambiguity in "Two guards seemed to be standing in front of every building" is there because "two guards" has the option of reconstructing into the lower clause, has the option of being interpreted as though it was still down here. But that's why that sentence is ambiguous.

So why isn't this sentence ambiguous? Well, what we want is for something to prevent the "two guards" from reconstructing down to here if the "two guards" had to be up here, if they couldn't be interpreted in this lower position. Well, then QR wouldn't be able to get past them because the hypothesis is that QR can only get this far.

Is there something that will stop the guards from reconstructing? Why shouldn't "two guards"-- suppose we got rid of "two guards" up here. So we would have "Seemed to themselves, two guards, to be standing in front of every building." Would anything go wrong with the interpretation of that?

Recall that what makes the sentence unambiguous is putting in "to themselves." If "to themselves" is not here, if it's just seem, well then "two guards" can reconstruct. But when we add "to themselves," it can't anymore. It has to stay up high.

What's "themselves"? (What are "themselves"? What am "themselves"? What??)

AUDIENCE: Anaphore?

NORVIN It's an anaphore, right? It's a reflexive.

RICHARDS:

AUDIENCE: [INAUDIBLE]

NORVIN Yeah, that's what you were about to say. It's a reflexive. Somebody just had a great idea.

RICHARDS:

It's a reflexive. Reflexives are subject to condition A, right? What does condition A say? What do reflexives need in life?

AUDIENCE: They have to be bound.

NORVIN
RICHARDS: They have to be bound, exactly. They need something to bind them. They need something that c-commands them and co-refers with them. That's why you can say, "The guards like themselves," but not "Themselves like the guards." "Themselves" needs to be c-commanded by "guards," or some other noun that refers to them.

So what would go wrong if you reconstructed "the guards" down here if you have "themselves" here is that, yeah, "guards" would be able to be scope ambiguous with respect to the buildings. But "themselves" would not have a binder anymore. What we're learning-- so when I was first showing you some examples of reconstruction, I think I said something like, it's as though anaphores get to look back on the past and say, well, I'm not bound anymore, but I used to be. And that's good enough. Something like that.

This is showing that that's not actually quite the right way to think about reconstruction. It's more like if you move something, it exists in various positions in the clause. But you have to pick one for interpretation. For things like quantifier scope and binding, you've got all of these places where it is simultaneously.

But the waveform has to collapse in order to give it a scope and an interpretation for binding. You have to pick one of the positions for it to be in. You run the experiment, you detect the electron or whatever it is, and then you know where the guards are. And once where they are, they have to be in a position where they behave as being just in that position both for anaphore binding and for scope. That's what these data seem to be telling us.

So "Two guards seem to be standing in front of every building." "Two guards" is in two places simultaneously. And you get to choose, is it in the higher position or the lower position? "Two guards seem to themselves to be standing in front of every building" forces you to pick a particular choice. You have to keep "the guards" up high so that "themselves" will have a binder.

And by choosing that, you also make a choice about how quantifier scope is going to work. You make it so that the quantifiers can't be ambiguous anymore because the guards are too high. The buildings cannot get to them. QR doesn't go that far. That's the way quantifier scope seems to work. It's the way reconstruction seems to work.

So the moral of all this is reconstruction involves picking a particular position to interpret a moved phrase in. I gave you this idea or this metaphor of you've got this thing, which is moving, and you get to rewind the tape and decide-- look at it in a different position, not the position where it's actually being pronounced. And you can think about it that way if you want.

But the point is you have to pick one particular position as the position where it gets-- you don't get to say, OK, it'll be here for anaphore binding, but for quantifier scope, it will be here. That's not the way it works. You pick one spot for it to be for all of its interpretive properties.

This way of-- this fact about reconstruction, just the existence of reconstruction and this fact about how it works, is sometimes taken as a bit of evidence for a particular way of talking about movement, what's called the copy theory of movement. And so I just want to show you that and then we're going to leave this whole area behind for a little bit.

The copy theory of movement. So when we started syntax, cast your mind back to when we started syntax, when you were younger and more carefree. When we started syntax, I started by saying something like, syntax is going to be a little bit like morphology. So cast your mind back to morphology.

We said we're going to create these tree structures via repeated application of merge. So we're going to take things and we're going to put them together and make larger things. And Merge is going to be recursive in the sense that it gets to take things that it created and merge them with other things.

So you can merge things that you take out of the lexicon, morphemes, or words, or whatever, and you can merge those things together to form larger things. But you can also merge the phrases you've created together with other phrases. So for example, suppose we want to construct the embedded clause of "I don't know what Mary will eat," where I'm using an embedded clause just so we won't have to think about what the auxiliary does.

So the idea was you're going to do the embedded clause by merging "eat" with "what." Remember, we have the idea that forming this kind of embedded clause involves moving "what." And so we're going to start "what" as the object of "eat." So we'll take these two things from the lexicon, "eat" and "what," and we'll merge them together to make this bigger thing, this verb phrase.

And then we'll take that thing, that verb phrase that we created, and we'll merge that together with a new thing that we'll get from the lexicon, "will." Yeah, so we'll take "will." We'll put that together with the verb phrase. Now we have an even larger thing and we have "will eat what."

And then we take that thing that we've made, and we merge it together with a new thing that we get out of the lexicon, "Mary." So we take "Mary," and merge that together with T-bar. As a comparatively simple example, if it were, "I don't know what the students will eat," then I'd have a bit where it had to create "the students" by merging "the" with "students." I have a noun phrase. I merge my noun phrase with my T-bar, and now I've got my TP.

So far so good? This is-- I'm just building a tree. One more step, I'll grab one more thing from the lexicon. We'll merge a C with what we've created so far, a C and a TP.

And now it's time to do wh-movement. And the idea behind the copy theory of movement is look, this is just another case of Merge. So all of our cases of Merge, we've always had the option of merging either something we've created via Merge, we've merged the VP with something, merged the T-bar with something, merged the TP with something, or grabbing something new from the lexicon and putting that in. We've always had that option right along.

And the idea is this thing that we're calling movement, it's just another example of Merge. We'll take this C-bar that we've created and we'll merge it with something that's already in the tree, with "what"? So we've got-- now "what" is in two places.

So it's in the place where we merged it first and it's in this new place that's up at the top. And so we end up with "What Mary will eat what," which raises certain questions. Like why don't we say, "What Mary will eat what?" So we need a theory of what happens when you merge a single thing in two places.

But the result is that "what" is now in more than one place in the tree. And that's all that Merge-- that's all that movement is. So I've been showing you trees where we created trees via Merge and then there were arrows. So you took things out of the places where they were, and you put them in new places, and they weren't in the old places anymore.

And now all this talk about reconstruction makes it look like that was misleading. There's a sense in which thing-- when you move things, they're in all of the places where they ever were. For interpretation, it sure looks like that's the way to think about it. You can interpret them as though they were in any of the places that they've ever been.

And the copy theory of movement is meant to be a way to handle that. It's as though when you move things, what you do, really, is take something that you've already merged in the tree and you merge it again. And then there have to be principles that explain where you pronounce it when you merge it more than once.

Do you pronounce this "what Mary will eat?"-- "I don't know what Mary will eat." Do you pronounce it, "I don't know, Mary will eat what"? We've talked about the fact that some languages have wh-movement and some don't. So maybe there are languages that pronounce the higher copy of "what," that's English, and languages that pronounce the lower copy of "what," that's, like, Mandarin, say.

And similarly for reconstruction, the way to talk about this is yeah, there are two copies of "what," and you have to pick one to be the one that you'll interpret. And the same deal with "two guards," or whatever all else. So "what" is now in two places. Yeah?

AUDIENCE: Do you always pronounce the higher?

NORVIN
RICHARDS: So one theory about what's going on is in English, you pronounce the higher of two copies when you're doing wh-movements. But maybe the-- so we've said there are languages in which the way to ask "What did Mary eat?" is to say literally, "Mary ate what." So Mandarin is like that, for example, or Japanese is like that.

There are lots of languages like that. And maybe a way to talk about those languages is as far as movement goes, they're doing all the same movement that English is. They're just pronouncing the lower copy. And English is pronouncing the higher copy, and those are languages that pronounce the lower copy. That's one way to talk about what's going on.

So copy theory of movement is meant to be responsible for these data about reconstruction, which really seem to make it look like it's misleading to say when you move something-- we talk about it as movement because, well, we're pronouncing it over here and not over there. And that led us to think of it as now it's here and it's not there anymore. Reconstruction makes it look like no, there's some sense in which it's simultaneously in all the places it's ever been, and you get to choose which of the places to interpret it in. And maybe there's something similar going on with pronunciation, as I just said.

I don't know if anybody remembers Finnish vowel harmony. We're doing nostalgia today. So I've asked you to remember syntax, I've asked you to remember morphology. Now remember this thing that we did very fast about phonology.

So there's this observation about Finnish that properties like front or back for vowels in Finnish are just constant across the word, more or less. So there are words in-- Finnish has what's called vowel harmony. There are words in which all the vowels are back and words in which all the vowels are front.

So there are words like [SPEAKING FINNISH], which is the Finnish word for "table." And if you want to put that in the case that expresses the meaning "on the table," there's a suffix, which, when you add it to [SPEAKING FINNISH], is pronounced lah, with an ah with the front vowel because [SPEAKING FINNISH] has front vowels. And so when you add "la" to it, you get lah.

If you added la to the word for "chair," which is [SPEAKING FINNISH], you'd get [SPEAKING FINNISH]. So the vowel would be back in the la. And the idea that I floated, is an old idea in phonology, is that we should think of properties like front or back in Finnish as being smeared across the whole word.

So it's not like for every Finnish vowel in a Finnish word, you get to specify whether it's front or back. Front or back is just a property of the whole word. It's in all of these places at once, this property of being front or back, and it appears in more than one place at once.

What I'm talking about now, copy theory of movement, is like that for syntax. There are things that are in more than one place at the same time because you merged them to the tree over and over again. And then it is the job of the phonology and the semantics to take that property of these syntactic representations and figure out what the heck to do with them.

So syntax is handing phonology structures that literally look like "What Mary will eat what?" And phonology has to look at that and go, what? Wait, which of these? Where am I going to pronounce-- I have to pronounce "what" once, and I have to choose which of these places to pronounce it.

And maybe semantics is doing something similar. Maybe that's what all this talk about reconstruction is doing. Semantics similarly looks at that representation and says, oh, I've got this thing that's in more than one place. I can only interpret it in one place, and I'll pick one.

And then big literature figuring out how do we pick? What are the rules about where we pick? Lots of work on this. Copy theory of movement.

So yeah, reconstruction involves picking a particular position to interpret a move phrasing, both for binding theory and for quantifiers. Topic shift. I think I can promise that I will never again talk about guards and buildings. So if anybody has any questions about guards and buildings, go ahead. Get them out of your system. And we're going to leave them behind. No more guards, no more buildings.

Let's talk about ellipsis again. We talked about ellipses before. So this is a property of sentences where you can leave out parts of the sentence. Language is varied with respect to how much of this they do. English has VP-ellipsis, which is comparatively exotic. There are other languages that has VP-ellipsis, but it's certainly not every language.

So VP-ellipsis is this option that English and some other languages have where if you're about to repeat a verb phrase, you have the option of just leaving out the second verb phrase. So you can say things like, "Adam ate an apple and Eve did, too," where the missing verb phrase is "ate an apple."

There's another phenomenon which is a lot more cross-linguistically common. It's called sluicing, where you get to leave out most of a question. So you can say things like, "Adam ate something, but I don't know what" where this means "I don't know what Adam ate." So what's been left out is the rest of the question, "I don't know what Adam ate." All you pronounce is the "what" part.

This is called sluicing. There's an old name for it. It's called that because-- I think I've made this mistake sometimes on slides where something that's called-- we've been calling TP, which people these days usually do call TP. It used to be called IP.

It's just a different name. So now we call it a tense phrase. It used to be called an inflection phrase. And we've had some slides where I accidentally left in an IP and I apologized, and had to go in and fix it before I posted the slides. I hope I managed to do that for all the slides I posted.

Before it was called an IP, it was called an S. So if you-- S stood for sentence. So it was before our terminology got as sophisticated as it is today. So S stood for sentence. And sluicing was a cute name for this.

The idea was when you say "I don't know what Adam ate," you're getting rid of "Adam ate." This is the S. So you are "S-losing." You're getting rid of the S. Yeah, so that's how it got the name "sluicing."

Yeah, it's a cute name. I'm sorry, that's the only excuse I have for telling you that this thing used to be called S. That, and that if you ever read ancient literature in syntax, you'll sometimes see it called S.

So VP-ellipsis. Fairly common phenomenon. Sluicing, possibly a universal phenomenon. There's a lot of work on whether things that look like sluicing really are sluicing in various languages.

And at least one way of understanding what's going on here is that these are-- so there are a couple of ways of understanding what's going on here, and we will talk about them. But here's one way you could say, yeah, it's possible sometimes to just refrain from pronouncing parts of a sentence. So if you have built a sentence with the structure "Adam ate something, but I don't know what Adam ate," well, you can say that. But you also have the option of refraining from repeating the "Adam ate" at the end there. You can just leave it out.

That's one way to talk about it. There's another way to talk about it, of course, which is to say, no, look, if you say "Adam ate something, but I don't know what," well, you have said, "Adam ate something but I don't know what." We need a structure for that where there's no sentence after what. There's just nothing there.

And yeah, it's the job of the semantics to interpret that as "I don't know what Adam ate." But the syntax is not building a structure, "I don't know what Adam ate," and then refraining from pronouncing part of it. There's none of this ellipsis stuff. You're just-- we have a pretty sophisticated way of interpreting things like "I don't know what."

Do people see the difference between these theories? And one of them says the syntax always creates complete sentences, and then the phonology has the option of refraining from pronouncing parts of them. Yeah.

The other says, no, the syntax has the option of creating things that are not complete sentences, and then the semantics just has to deal, figure out how to interpret those things. Those are two takes that people have had on this kind of phenomena. Yeah?

Now let me give you one reason to take one of these takes seriously, more seriously than the other one. Though, they are both live options, and people argue for both of them. Different people. Some people argue for one, other people argue for others. Most people do not argue for both.

Here's one. We've talked about preposition stranding. So preposition stranding is this fact that in certain strange and exotic languages like the one I'm speaking, you have the option of asking two kinds of questions if you want to ask a question about the object of a preposition.

You can ask questions like "Who was he talking with?" Or you can ask questions like "With whom was he talking?" That is, if you want to ask a question about the object of "with," you can just wh-move the object of "with," and leave the "with" behind: "Who was he talking with?" Or you can move the entire prepositional phrase: "With whom was he talking?"

I, at least, would much rather say the first of those. But some people are able to say the second one. It depends on how savagely you were beaten by English teachers in high school. So your English teachers in high school maybe tried to convince you that the right way to speak English involves the sentence on the right.

They did that-- I mean, they had the best of intentions. They did that because most languages only have that second option. So English is quite unusual in having that first option, and scholars of the English language sometime in the 1700s decided that English would be much cooler if it were like every other language. It's basically grammatical peer pressure. So they were like, wouldn't it be nice if English were more like Latin, and French, and other civilized languages where you can't leave prepositions behind?

So there are some languages that have this option of what's called preposition stranding, leaving "with" behind and wh-moving the object of the preposition out, as in "Who is he talking with?" Most languages don't have that option. You only have the option on the right.

This is all-- we've said all of this. So I say we should be proud of the fact that we can say, "Who was he talking with?" It should be on our currency. It should be part of the official motto of the US. "Who are you talking to?" That should be our motto. No?

Now as I said, most languages are not like this. So here are some Russian examples. In Russian, this is Russian for "Peter was talking with somebody but I don't know whom." And similarly, let's concentrate first on the sentences at the end.

In Russian, Russian is like most civilized languages in which you cannot say, "Who is he talking with?" You can't say, [SPEAKING RUSSIAN]. You have to say [SPEAKING RUSSIAN]. So "With whom was he talking?"

So that the preposition "with," which is [SPEAKING RUSSIAN] in Russian. Russian has longer prepositions than that, but that's one of them, prepositions that are just a consonant. You have to take that preposition along with the wh- word.

And relatedly, possibly, Russian has sluicing. But in Russian-- so let's go back to English. In English, if you do sluicing, you have two options. You can either say, "Peter was talking with somebody, but I don't know who," leaving the preposition out. Or you can say, "Peter was talking with someone, but I don't know with whom." Yeah, you can say that, too.

Russian only has the second option. You can only say the Russian version of "Peter was talking with someone, but I don't with whom." You can't say in Russian, "Peter was talking with somebody, but I don't know who." And this is English and Russian, but this is quite widespread. It's generally true.

There are some interesting counterexamples, which people get interested in and try to figure out what's going on. But it's generally true that if you are like English in allowing prepositions to be left behind, you can leave prepositions out in sluicing. And if you are like Russian in which your prepositions have to move along with your wh- phrase, then your prepositions have to be kept under sluicing.

So let's think about what that means for these theories of sluicing. The two theories of sluicing again, one of them-- let's take the first one first. One of them said, when you say "Peter was talking with somebody, but I don't know who," well, what you're doing is you're-- the syntax is generating "Peter was talking with someone, but I don't know who he was talking with." And then you leave out everything in the lowest sentence except for the wh- word itself.

So you start off with "Peter was talking with somebody, but I don't know who he was talking with," and then you leave out "he was talking with." So you end up with "I don't know who." Now that's a story where sluicing involves creating a complete sentence and then electing to not pronounce part of it.

If we have that kind of theory of sluicing, then the facts in English and Russian boil down to a single difference between the languages. So the single difference between the languages has to do with whether you have to take prepositions along with you when you wh-move the object of a preposition, whether you have the option of saying "Who is he talking with?"

So there's a relation between the fact that in English but not in Russian, you can say, "Who was he talking with?" And the fact that in English, but not in Russian, you can say, "Peter was talking to somebody, but I don't know who." Those are both the same fact.

The fact is when the syntax is constructing the sluiced example, in English, you have the option of saying, "I don't know who he was talking with," and then leaving out "he was talking with." In Russian, you don't have that option. You have to say, "I don't know with whom he was talking."

And that's why when you do sluicing, you have to say, "but I don't know with whom," and you can't say, "I don't know who." So these facts are related to each other. If you can strand prepositions, then you can leave them out in sluicing. And those facts are connected if sluicing involves, well, actual wh-movement, together with a decision to fail to pronounce part of a sentence.

Yep, that's one argument for that approach. On the other hand, if you have the kind of approach that's like, no, look, there's no-- you don't always create complete sentences. The syntax when you say, "Peter was talking with somebody, but I don't know who," the syntax is just creating "I don't know who."

And then it is the job of the semantics to figure out what the heck you mean when you say that, and to supply the rest of the sentence from context. Well then, it's less clear why these facts should track each other, the fact about whether you constrain prepositions and the fact about whether you can leave it out in a sluice, because the sluice doesn't, on that kind of theory, literally involve any wh-movement.

Another similar kind of fact. German has verbs that assign entertaining cases to their objects. So English does not have a whole lot of case morphology, but way back when, we talked a little bit back in syntax about case morphology, this idea that nouns have morphology on them telling you roughly what they're doing in the sentence. So we talked about the fact that there are languages that have a marker that says, hey, I'm the subject, or hey, I'm the object. There are languages that have other markers, these case markers, we called them.

German has more of this stuff than English does. And in particular, German has this phenomenon sometimes called quirky case, where there are verbs. One of the fun things about-- one of the many fun things about learning German is that if you want to learn a verb like "schmeicheln," which is the German verb to flatter, first of all, you must learn to pronounce it possibly better than I just did.

And second, you must learn that its object is dative. Why? Well, it just is. So part of learning German is learning that if you flatter someone, you flatter them datively.

To say that the object of "schmeicheln" is dative is to say that when you want to say he wants to flatter someone, the word for someone is "jemandem" and ends in an M, which is the mark that it's dative. If you wanted to say, for example, he wants to praise someone, well, praise, "loben," is like most transitive verbs in that its object is accusative. So now someone isn't "jemandem," it's "jemanden."

A fun, quirky fact about German. If any of you were considering learning German, this is one of the many things you will get to learn. Yeah? Yeah.

Now cool fact, if you sluice in German-- German's like English, it has sluicing. If you sluice in German, if you want to say, "He wants to flatter somebody, but they don't know who," you can say that in German. If you want to say, "He wants to praise somebody, but they don't know who," you can say that in German, too.

But if you say, "He wants to flatter somebody, but they don't know who," well, the word for "who," it's like the word for "someone." It has different dative and accusative forms. So as you can see in the slide, "He wants to flatter someone, but they don't know who," the word for "who" has to be "wem". Has to be dative. Whereas "He wants to praise somebody, but they don't know who," the word for "who" has to be "wen," has to be accusative.

So let's think about what that means on the two approaches to sluicing. On the approach to sluicing where sluicing involves creating a complete sentence and then forgetting to say part of it, just one theory of sluicing we talked about, well, this makes sense. Because that first sluicing example, you're saying, in German, "He wants to flatter somebody, but they don't know who he wants to flatter." And "who" starts off as the object of "schmeicheln," a version of "schmeicheln," that you're not actually going to say. And because it's the object of "schmeicheln," it is dative, and so it gets pronounced with dative.

And then if you want to say, "He wants to praise somebody, but they don't know who," well, you start off by constructing, "He wants to praise somebody, but they don't know who he wants to praise." "Who" starts off as the object of "praise," and so it's accusative. And so we have an account of why these words for "who" are dative or accusative, depending on the properties of a verb which you cannot hear.

The idea is yeah, you can't hear it, but it's there. And it does its thing. It makes "who" either dative or accusative, and then you move "who" out of there, and then you forget to pronounce the verb. Yeah, that's how sluicing works.

On the alternative approach to sluicing that says, no, it's just semanticists are smarter than you think they are, you can give them, "He wants to flatter someone, but they don't know who," and it will be their job-- that will just have all the structure that you can hear. There's no complete sentence down there. The end of the sentence is just "who."

Well, the semanticists will have to be so smart that they can know that the verb "to flatter" in German assigns dative case to its object, even though "who" is, in some sense, not the object of "flatter" on that story. It's never been anywhere near the verb "flatter." So there are some complications for that approach in these kinds of facts.

So those are two reasons to take seriously the idea that ellipsis, this has been concentrating on sluicing, is a process in which you create a complete sentence, a syntactically present structure. When you say "John is eating something, but I don't know what," you really are saying "John is eating something, but I don't know what John is eating." And then you are leaving out "John is eating" from the end of the sentence.

So there's this process of ellipsis that gets rid of stuff that's syntactically present so that it's not pronounced. But it is interpreted. And it can have effects on things like case, as we saw in German.

Now let me show you one bit of evidence for the alternative approach, actually, just so that you can see why people take the other theory seriously. Here are some more sluicing examples. The classic example's from the literature. "She bought a big car, but I don't know how big." Fine.

"A biography of one of the Marx brothers is going to be published this year. Guess which?" Also fine. Do people agree that these are fine? I think they're fine.

All right, let's think about what would be in the part that's not pronounced. The way we've been talking, these should mean, "She bought a big car, but I don't know how big she bought a car," or "A biography of one of the Marx brothers is going to be published this year. Guess which a biography of is going to be published."

And the problem with that is that these are not grammatical sentences. Do people agree with that? If you were to pronounce the whole thing, you would die. Well, maybe not die. It would depend on your previous medical condition. Yeah?

AUDIENCE: [INAUDIBLE] published.

NORVIN I'm sorry, say it again.

RICHARDS:

AUDIENCE: I meant--

NORVIN You're just--

RICHARDS:

AUDIENCE: You said you would what?

NORVIN Oh, you're just testing my claim that if you said this aloud, you would die? Oh, gosh. So--

RICHARDS:

AUDIENCE: "A biography of one of the Marx brothers is going to be published this year and guess what the biography of (blank)." Whatever goes in the blank is going to be published. OK.

NORVIN How do people feel about this? I didn't say that people were going to kill you. I said you were going to die. So you
RICHARDS: shouldn't feel like you have to harm him in any way. Raquel, did--

AUDIENCE: I think the way that I think of filling it is-- "I don't know how big the car is," or "I don't know which biography is in which--" thinking [INAUDIBLE] it feels kind of weird. It feels it's weird movement going on there.

NORVIN Yeah. Yeah, yeah, yeah. So you seized on the move. So I said, here's a bit of evidence for the opposing camp. So
RICHARDS: the opposing camp, the people who think, no, in a sluice, there's no wh-movement going on. When you say, "I'm reading a book--" "I'm reading a book, but I can't remember what."

"John is reading a book, but I don't know what." "John is reading something, but I don't know what." That sentence just ends with "what." It isn't "but I don't know what he's reading." So you don't have the complete sentence, and you're leaving part of it out.

These people want to say, no, there's no wh-movement going on at all. And these kinds of examples are the kinds of examples they point at. They say, look, we know how wh-movement works. You can't do it out of certain kinds of things. We talked about in this class, that there are what are called islands, domains that you can't move out of.

These are not among the islands that we talked about. I think I warned you when I showed you some islands. There are so many islands out there. It's like the Pacific out there. There are lots and lots of islands. Lots of work on charting them and figuring out how deep the water is in different places.

And so here are some more islands. We don't have to worry about what they are, or why they're islands. It's clear that if you were to say this whole sentence, it would be bad. Bad things would happen to you. And the people who want to say, there's no wh-movement in a sluice, they point at stuff like this.

The people who say, yes there is, too, wh-movement in a sluice, what they say is what Raquel just said. They said, no, but look. How do you know that you're not saying "She bought a big car, but I don't know how big it was." Or "A biography of one of the Marx brothers is going to be published this year. Guess which one it is"--

"...Guess which Marx brother it will be." Yeah, another possibility. Kateryna, did you have a question before? Or I'm sorry, I didn't mean to put you on track-- spot. So that's an argument that goes on between these two halves of the field. Yeah?

AUDIENCE: Isn't this the essence of one of the questions that [INAUDIBLE], and also that there might be wh- movement or there might not be, and that there are certain things that you can't move things out of?

NORVIN Yeah. Yeah, yeah, yeah. Yeah, no. Absolutely. So this is-- one of the things I love about linguistics is that it's very-
RICHARDS: - here we are in 24.900 and it's not all that hard. I mean, we're late in the semester. I've had to teach you a bunch of things in order to get you here. But where I've got now is standing right on the edge of the abyss looking out.

So it's not clear where the bridge is, that will get us across the abyss. These are two ways that people deal with this problem. One is to say, no, there's always wh-movement. And what's going on here is that you get to rephrase these things. Notice that you have to be careful about this to avoid losing the results that we got from the previous slides.

So why can't a Russian say, "He wants to talk with somebody, but I don't know who it is," leaving out the "with," which they can't do? So we have to understand what's going on in those kinds of examples. There are other things people say, but this is the place where the field currently is, trying to figure out what to do about this kind of clash between data.

Cool. Questions about any of that? OK.

So moral of all this, and then we will switch topics again, what we're seeing, maybe we knew this before, is that our best take on how-- so here we are, almost at the end of semantics. And what we're learning is if you are trying to interpret a sentence, what you are interpreting is not necessarily exactly what you hear.

So there are phenomena like reconstruction where it sure looks like you get to take something that used to be in one place and is now in another place and interpret it as though it was still where it used to be. So "Which picture of himself did he buy?" is grammatical, because you have the option of reconstructing "Which picture of himself" to a position where he "himself" is still bound by "he." so we know that "himself" needs to be c-commanded by "he," and it isn't in the move to position.

Or we think that there is such a thing as QR, quantifier raising, which creates ambiguities like the one in "Someone loves everyone." By taking "everyone" and moving it to a position above "someone." Yeah, we saw some evidence for that. In English, you can't see that, at least you don't have to say "Everyone someone loves" in order for the sentence to be ambiguous. You can say, "Someone loves everyone" and get an ambiguous sentence. We saw that there are languages, like Hungarian, where you do get to see the movement, but there are plenty of languages where you don't, like English.

Or ellipsis, where we've seen some arguments, some of them pretty compelling, that when you say "She bought something, but I don't know what," that it's really "She bought something, but I don't know what she bought," and you are interpreting something that's larger than what you can hear. There's this option of leaving out some of the stuff that's syntactically there.

So interpretation is complicated for all kinds of reasons. There's all kinds of interesting stuff semanticists talk about. But one of the things that they have to do is figure out what exactly is being interpreted. And it's not just a matter of figuring out what you heard. There's stuff that you didn't hear that's going on. Part of what makes semantics an interesting field.

Complete shift in topic. No more talk about reconstruction, very little talk about syntax. Talk about something completely different. So if anybody would like to continue to discuss sluicing, or guards, or buildings, or ellipses, or any of this stuff, this is the time.

So other kinds of things semanticists talk about. We'll see how much of this we get through before we have to stop. Consider a sentence like "I will only give Mary three cookies." That's a very ambiguous sentence.

It can mean-- here's one thing it can mean. No, actually, let me say it a different way. You can say, "I will only give Mary three cookies." You can say, "I will only give *Mary* three cookies," which means something different from "I will only give Mary *three* cookies," which means something different from "I will only give Mary three *cookies*." Yeah.

I think you can also say, "I will only *give* Mary three cookies." Yeah. I will not-- yeah. Yes?

AUDIENCE: Another example I've seen of this is "Congratulations on your baby!"

NORVIN Yes?

RICHARDS:

AUDIENCE: Or if you--

NORVIN Thank you.

RICHARDS:

AUDIENCE: If you put a focus-- every single word in the sentence except for "on," if you put your focus on that word, it means something completely different.

NORVIN Oh, I see. Yes.

RICHARDS:

AUDIENCE: You can't say that.

NORVIN "Congratulations on your baby, not under your baby." Yes. Yeah, yeah, yeah.

RICHARDS:

AUDIENCE: [INAUDIBLE]

NORVIN "Congratulations on your baby," yeah. So let's go back to the cookies, though. The phenomenon is called association with focus. And the idea is if I say something like "I will only give *Mary* three cookies," what I'm doing is inviting you to consider all of the sentences of the form, "I will give x three cookies."

RICHARDS:

And I'm asserting all of these are false, except for the one where x is Mary. That's what that means. So "I will only give *Mary* three cookies" means I will give Mary three cookies, and I will not give three cookies to Bill, or John, or Susan, or Fred, or anybody else that's relevant.

Similarly, if I say "I will only give Mary three *cookies*," it means I will give her three cookies, but I will not give her three hamburgers, or three hot dogs, or three cakes. Only three cookies. So association with focus, it's this interesting phenomenon that shows up where, depending on which of these words I'm saying loudest, what I'm inviting you to do is consider other sentences where that word has been substituted for something else. And in this particular case, what I'm asserting is that all the other sentences are false, all the ones except the one that I've said.

People generally decompose this into two parts. There's focus, which is the putting special emphasis on a particular word thing, which invites you to consider all of the alternatives to that word. And what you're supposed to do with the other alternatives to that word depends on what goes on in the rest of the sentence.

So "only" associates with focus to say, all the other alternatives are false, give you false sentences. So "I will only give *Mary* three cookies" means I will give Mary three cookies, but I won't give three cookies to anyone else. If I say, "I will even give *Mary* three cookies," that means something like I will give Mary three cookies, and she is the least likely person for me to give three cookies.

We all know that I hate Mary. But I'm going to give three cookies to everybody, even Mary, who I hate, and also she's diabetic. But I'm going to give her three cookies anyway. Yeah?

Or "I will even give Mary *three* cookies" means I will give her three cookies, not just other numbers, like two or one. That's what that means. "I will give Mary three cookies, too," actually says, I will give Mary three cookies, and there's at least one alternative, which is also true, I guess. So "I will give Mary three cookies" means-- "I will give Mary three cookies, too," means I'll give Mary three cookies in addition to the other person that I'm going to give three cookies to, which maybe you already know about. Yeah?

AUDIENCE: In the middle one, if you emphasize "cookies," it would be like giving her three of other things, but you're also throwing in three cookies.

NORVIN
RICHARDS: Yeah. So "I will give Mary three cookies, too." So this is another interesting aspect of association with focus. Yes, so it can mean what you just said. I'm going to write that down. "I will give Mary three cookies, too." It can mean, I will give her three cookies and I will also give her three of something else. You're absolutely right.

I feel as though it can mean something else as well. "I will give Mary three cookies, too." Can people get that to mean something else? I feel as though it can also mean, not only will I give her three cookies, but I will give her a bicycle. That is, the other thing that I will give her, it doesn't have to be three. So I will give Mary a cake, I will give Mary a pie, and I will give her three cookies, too.

Yeah. So this is an interesting aspect of all this that people work on a lot. So I've just been talking about putting stress on the word and saying you get to consider all the alternatives to that word.

And that is true, that if you put stress on a word, you get to consider all the alternatives to this word. There's this phenomenon is sometimes called focus projection. And one way to think about it is, we know how to focus a word, you say the word louder. How do you focus a phrase?

And maybe what we're learning is a way to focus the whole phrase, "three cookies," is the same way you would focus "cookies." That is, you put stress on "cookies." You might have thought that the way to focus a phrase would be to say the whole phrase louder. So "I will give Mary a cake, I will give her a pie, and I will give her *three cookies*, too." You might have thought that you would have to do that.

You don't. You can, maybe, but you don't have to do that. One of your options is to just emphasize part of the phrase, and now the theory, or the literature is off and running: which part of the phrase do you get to emphasize in order to focus the whole phrase? Because notice there are constraints. If I say, "I will give Mary *three* cookies, too," well. That's grammatical, but the only alternatives are other numbers.

So "I will give Mary *three* cookies, too," means not only will I give her one cookie and two cookies, but I will also give her three cookies. It can mean that. But "I will give her a cake, and I will give her a pie, and I will also give her *three* cookies"-- that's peculiar.

If I want to avoid being peculiar, I have a long way to go. But I can start. The first step on the long, long journey is to avoid saying things like that. Instead, I need to say-- sorry, I'm cracking myself up. What I need to say instead is something like "I will give her a cake, and I will give her a pie, and I will give her three *cookies*, too"-- to put the stress on "cookies."

That's the normal way to focus the whole phrase "three cookies," is to put the stress on "cookies." So how come it's on the "cookies" and not on "three"? Maybe because the whole phrase is a noun phrase and "cookies" is the noun. Or maybe it's more complicated than that. There's all kinds of work now to figure out what's going on.

So there's a phenomenon in focus projection which people get very excited about trying to figure out. What is it that lets you do this? Because it goes further than this-- So actually, let me destroy the theory that I just offered. Consider a sentence like "I will only talk about bats."

Now imagine that the main thing that I emphasize is "bats." So that has one meaning, that's the easy meaning. "I will only talk about *bats*" means I will not talk about anything else. I will only talk about bats.

But I think there are some other things it can mean. One of them, for example, is I can say "I will only talk about *bats*." I will not draw any disturbing drawings, or sing any weird songs. All I will do is talk about bats. I think it can mean that.

So I can be contrasting the bats with other things, but I can also be contrasting the whole verb phrase, "talk about bats," with other verb phrases that I could be doing. Yeah?

AUDIENCE: I feel like if you get that meaning, you would have to emphasize talk. "I will only *talk* about them. I won't sing about them, I won't draw them."

NORVIN Ah, that's a nice example. Let's do that. "I will only *talk* about bats."

RICHARDS:

I think Faith is absolutely right. It's possible to say "I will only *talk* about bats." And I think the alternatives are the ones that you just outlined. It means I won't sing about bats, I won't compose poetry about bats, I won't dress up as a bat. All I will do is talk about bats. Yeah, I think that's right.

But notice-- I think this one-- imagine that what I want to say is "I'm obsessed with bats, I'm sorry. And in fact, I-- but I'm going to do my best to behave normally at the party.

So I'm not going to try to swim in the punch bowl, and I'm not going to scare the host's pets, and I'm not going to eat all the food. I'm only going to talk about bats, which is a little weird. But it's not as weird as some of the things that I could do."

So if we're considering a bunch of verb phrases that have nothing to do with each other, I think one way to do it is by putting the emphasis on "bats," to say "I will only talk about bats." ("I won't try to eat the host's dog. I'll just talk about bats. Is that so bad? I like bats.") Yeah? I think this is true.

Has everybody seen the video about the bats on the swing? Oh, OK. I'll try to find it and put it on the website. It has nothing to do with linguistics, but it's an awesome video. So it looks as though-- I think Faith is exactly right that if you put the stress on "talk," the alternatives are talk-- are to the verb. So I'll only *talk* about bats. I won't sing about bats, I won't do an interpretive dance about bats.

But if I put stress on "bats," then we can consider alternatives to bats, but we can also consider alternatives to the whole verb phrase. And so this is the kind of thing, as I said, people who work on focus projection try to figure out what the heck are the rules for focus projection, because they're complicated. Yeah?

AUDIENCE: Oh, it's just a question because I feel like my ability to interpret meanings has gone out the window.

NORVIN I understand.

RICHARDS:

[LAUGHTER]

AUDIENCE: What happens if you put the emphasis on "only?"

NORVIN On "only?" I will only talk about bats. I don't know, what does that mean?

RICHARDS:

AUDIENCE: I won't do anything else.

NORVIN I won't do anything else. I will only talk about bats.

RICHARDS:

AUDIENCE: I feel like it could call into question everything in the little brace. So you say "I will only talk about bats," and that could mean that you're saying as opposed to anything else about bats, anything else about-- or talk about any other--

NORVIN Yeah. Yeah. Yeah. I think that might be true. I think that might be right. Yeah. More mysteries. Any other

RICHARDS: questions about bats, or "only," or focus projection? It's just a phenomenon that's out there. Yeah?

AUDIENCE: Have we gotten across a sentence where stressing a particular word doesn't actually mean anything different? Because I feel you could stress any of the words in "I will only talk about bats." / will only talk about bats.

NORVIN That's true. So we've only talked about things that come after the "only." So / will only talk about bats.

RICHARDS:

AUDIENCE: And not you or--

NORVIN OK, first, let's forget about "only" for a second. If I say, I will talk about that, remember focus. So there's focus, which says let's consider all the alternatives to the thing that's focused. And now since we've talked about focus projection, we're bearing in mind the fact that what's focused is not necessarily what's loud.

RICHARDS: There's what's loud, which is contained in what's focused, and it might just be what's focused. But the thing that's loud could just be one part of the whole phrase that's focused. So forget about only for a second. If I say "/ will talk about that," there's focus on "I," and I think I'm inviting-- out of the blue, I think I'm inviting you to entertain the possibility that all the alternatives are false.

So if I say "/ will talk about bats," I mean "I will talk about bats and for some reason, the idea that somebody else might talk about bats is salient and it will not happen." So for example, if you ask me "Is Faith going to talk about bats at the party?" I can say, "No, / will talk about bats," and that means I will talk about bats and the salient alternative gives you a false sentence. That's what that means.

So I think when we say "/ will only talk about bats," that's similarly something you can use in that kind of situation. So if you ask me, "Will Enrico only talk about bats at the party?" I say, "No, no. / will only talk about bats." And that means I am the person such that the only thing I'll talk about is bats. Enrico is more normal than me, like most people. Yeah, Kateryna?

AUDIENCE: What if the more natural way to say that sentence is "only I?"

NORVIN
RICHARDS: So what's complicating this is that it's possible to get a meaning that's sort of like "only," without an "only." that's why I started with "/ will talk about bats," which means I will talk about bats and the alternatives to me won't.

Maybe if we do one of these other ones. So "I will even talk about bats" means several things. It can mean "I will talk about bats in addition to the many other things I will talk about." It can also mean "You wanted somebody to entertain everybody at the party. I will juggle, I will dance, I will even talk about bats. So I will do all the many talented things that I'm capable of doing. People will be agog. You'll be glad you invited me." It can mean that.

So putting emphasis on "bats" like that can either invite you to consider the alternatives to bats, or the alternatives to talk about bats. Yeah. "I will even talk about bats," I think, can also mean that, right? That kind of thing.

"/ will even talk about bats" can mean "I will talk about bats, and so will all of the linguistics TAs. Various people will talk about bats, and I'm one." / will even talk about bats. John will talk about bats, Mary will talk about bats./ will even talk about bats. I think it can mean that. Faith?

AUDIENCE: Aren't there even further divisions of variations of tone where, like, if you were to say "/ will talk about *bats*." You can't say that if someone were like, oh yeah, you're going to talk about bats at this party. It just doesn't sound like an appropriate [INAUDIBLE].

NORVIN
RICHARDS: "/ will talk about *bats*." Yeah, so we actually-- did we touch on something related to this? I think we did.

Yes, we did, because we were talking about pragmatics, and I was trying to get you to stop. Not you specifically, but the whole class *en masse*. You were all trying to force me to talk about pragmatics, and I was trying to stop you, and I don't know why I'm bringing this up now because we're about to do it again.

And I was giving examples like if you ask me "How did people do on the test?" I can say, "Well, *Mary* passed." And then you get-- that means-- all I've told you is that Mary passed. And if we were all robots, you might have expected that all you would conclude from that is that Mary passed.

So you start that conversation not knowing how people did on the test. That's why you asked me, "How did people do on the test?" I told you Mary passed, and now you know that Mary passed and you don't know anything else. You might have imagined that it would work that way, but it doesn't.

So if you ask me "How did people do on the test?" and I say, "Well, *Mary* passed," there are lots of possible interpretations, but one is Mary passed and no one else did. So you do draw conclusions about everybody else partly from the fact that I failed to answer your question. That's one of the kinds of things pragmatists talk about.

But it's possible that the particular tune that I sing as I say "*Mary* passed," invites you to contrastively focus *Mary*. That you're saying-- I'm saying to you, in a sense, *Mary* passed, and all the alternatives to *Mary*, notice that I haven't told you anything about them, draw your own conclusions. That's what I'm doing. Sometimes called a contrastive topic.

And I think that's connected with your example as well, maybe, or something similar going on. No? As you might tell, there's a huge can of worms right here, this work on-- a really fascinating can. I shouldn't call it a can of worms because that makes it sound disgusting. It's fascinating, really, really interesting.

There's all this interesting work on intonation, the kind of thing Faith is asking about, and the semantics of these kinds of expressions. So how do you connect the games you get to play with the pitch of your voice and your loudness with other sentences that I want you to think about that. I am not, in fact, saying but I'm communicating something to you about them. This is all fascinating, difficult stuff that people work on. Cool.

All right, we're back from bats to cookies. Any questions about cookies? Bats? Only even? OK.

Yes, association with focus. And then this is reminding ourselves that there are also sentences where you just focus something. "I will give *Mary* three cookies" used when alternatives to *Mary* are salient, like "Who will you give three cookies to?" I'll give *Mary* three cookies.

Or some of you just said, "Are you going to give John three cookies?" And I say, "No, I will give *Mary* three cookies." Or when you're making lists, like "I'll give Susan three cookies, I'll give John three cookies, and I'll give *Mary* three cookies." So I'm inviting you to consider various alternatives to *Mary*. That's the point of putting this extra focus on these words.

And then languages vary a lot, actually, with respect to how they realize focus. So there are languages like English that do it with gymnastics of the vocal tract. Your voice gets louder and softer, and higher and lower in pitch. There are other languages that tend to move the words around.

So apparently, at least in some dialects of Spanish, a standard response to "Who bought the newspaper yesterday?" is literally "Yesterday bought the newspaper Juan." That is, you put the answer to the wh-question at the end. That's a normal way to answer these kinds of questions, although that's not the default Spanish word order.

Or similarly, in Tagalog, if I want to say, "I'll only eat balut," you can't literally say that. So the last sentence on the slide is the attempt to translate word-for-word I will only eat balut, [NON-ENGLISH]

I was doing some work with Tagalog speakers not too long ago trying to get them to accept this last sentence, and they were like, no, no, you can't say that. You have to say the first sentence, which is something literally like, "Balut is the only thing I will eat." So Tagalog speakers can't just say balut really loud and have that be the thing that associates with focus.

They have to put it somewhere else at the beginning of the sentence in order to get it to mean things. Balut, if you remember, is this Filipino delicacy that involves a fertilized duck's egg, which is hard boiled before it hatches. Good source of protein, I'm told, though I've never had one.

And then there are also languages-- this is Chickasaw, which is a Muskogean language spoken in Oklahoma, I think. It used to be spoken around Alabama, but I think they were moved, in which there are morphemes that you put on nouns that say this is the focus.

We are just about out of time. There's one other topic on here, and I think we don't have time for the other topics. So I think we should stop here. Are there any questions about any of this, association with focus?

So please ask me any questions you have left about semantics because I refuse to teach you anything about semantics from now on. We will never talk about it again. That's probably a lie. I mean, I was telling you about syntax, and phonology, and morphology today, and those are things we thought we had left behind, too.

It all kind of blends together. Any last-minute questions about semantics? All right, go out and enjoy the day, and we'll see you guys on Tuesday.