CAS LX 522 Syntax I
Fall 2010

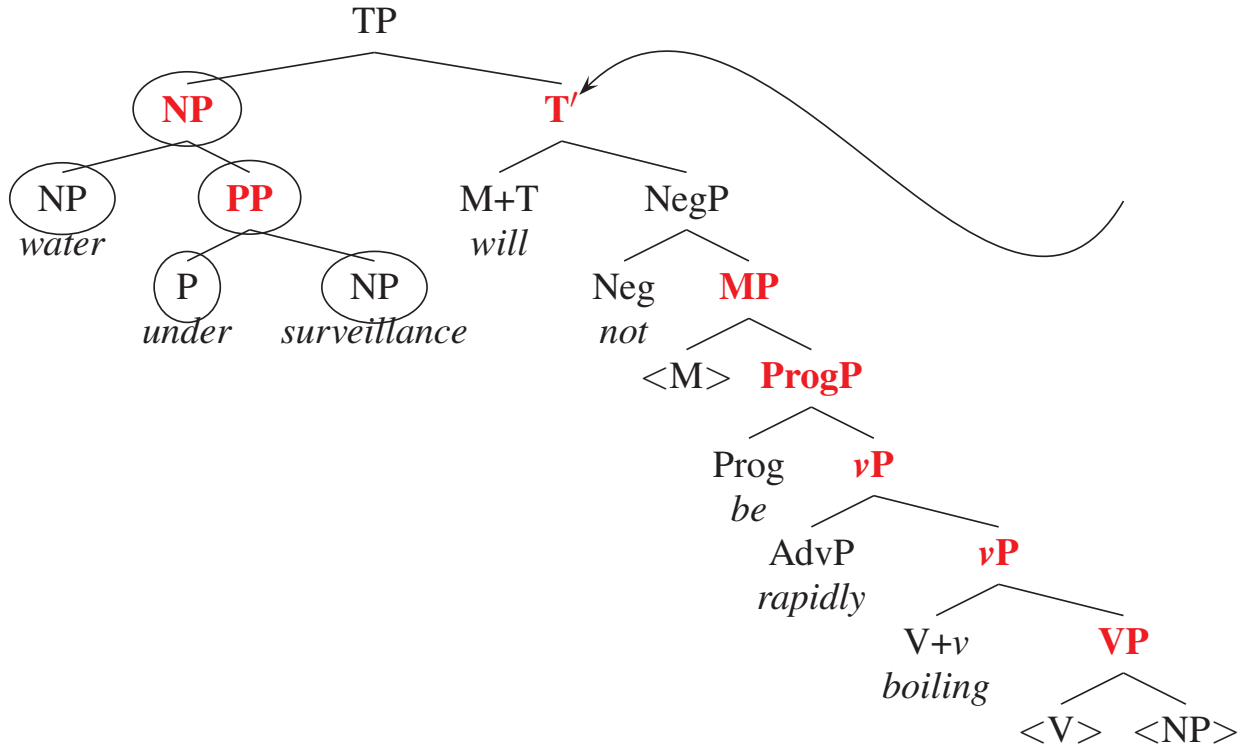
Midterm
KEY

Budget your time. 35 points total. 80 minutes. Average 2.29 minutes/points.
The number of points assigned to each part is indicated by a number in brackets.

If I were to give letter grades on this, they would go as follows (read as "number or above:grade"): 33:A, 30:A–, 27:B+, 24:B, 21:B–, 19:C+, 16:C–, etc.

1. [8] Fill in the missing labels for the nodes in the tree below. Where a node is the maximal projection of a lexical item, indicate this with the standard "X-bar" notation (e.g., NP for the maximal projection of a noun, v' for an intermediate projection of v). The sentence is *Water under surveillance will not be rapidly boiling*. The arrow is for use in question 4.

(1)



Most of these were labeled correctly, with one exception: There were a number of people who wrote v' instead of vP as the parent node for V+v. The adverb *rapidly* is adjoined, not in a specifier—it could only have been in the specifier of vP if the adverb checked a feature of v, but it doesn't—v is perfectly fine without an adverb.

2. [6] Yes or No. In the sentence for which the structure is given in (1)...

(a) Is *will not be* a constituent? **No**

(b) Is *rapidly boiling* a constituent? **Yes**

(c) Does NegP dominate the AdvP (*rapidly*)? **Yes**

(d) Does Prog (*be*) dominate the AdvP *rapidly*? **No**

(e) Is the NP (*surveillance*) the complement of P (*under*)? **Yes**

(f) Is the M+T (*will*) the specifier of NegP? **No**

Here too, most everyone got most of these, but (f) caused a bit more trouble than the others. I'm not sure exactly what the misunderstanding is about (f). *Will* is not even inside the NegP, and people correctly indicated that the features of T project (by writing "T′" as the label above it). Something that is in a specifier of X is the last thing that Merges with an object whose features project from X before all of its features are checked. When *will* merges with NegP, no features were checked, it was Merged there to satisfy the Hierarchy of Projections.

3. [1] Circle one. The verb shown in the structure in (1) above is...

ditransitive / transitive / unergative / **unaccusative**

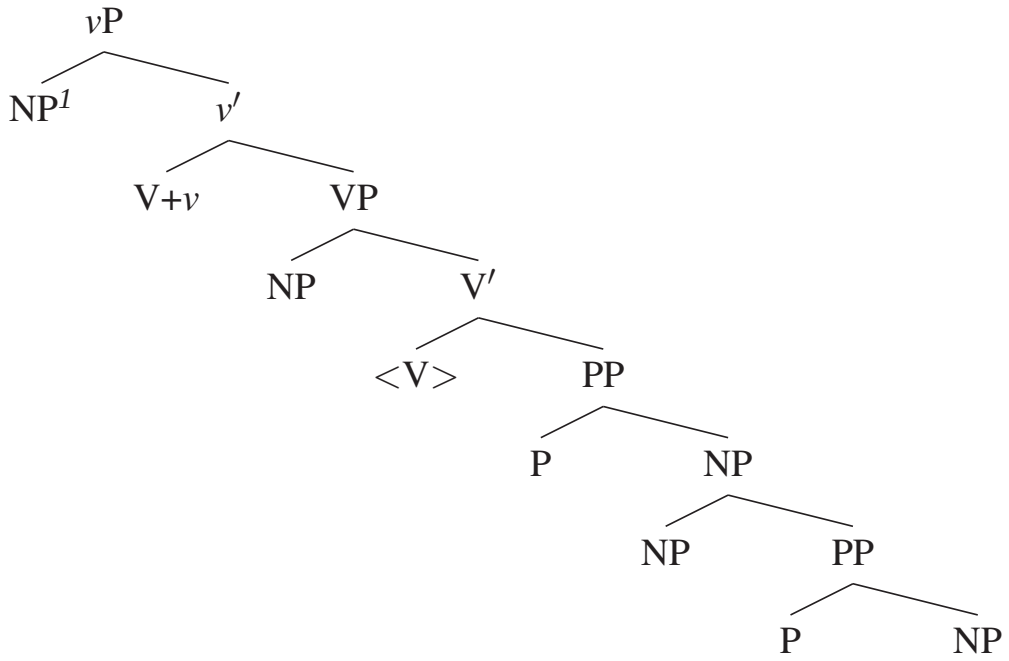
4. [1] C-command. The arrow in the tree above points to a node. Circle every node in the tree that node c-commands.

There were a few slip-ups here, some people circled the nodes that the designated node *dominates*, but those are not c-commanded by the designated node. There were also a couple of cases where people circled nodes that were *either* c-commanded *or* dominated, but it's only c-command that we're after here.

5. [1] θ-role. Name the θ-role that *water under surveillance* has in (1). **Theme**

6. Suppose we start building a structure for a sentence, and at a certain stage we wind up with a *v*P as shown (abstractly) below in (2).

(2)



On this tree, there were a few mistakes in the [*u*N] count and in the number of Adjoin operations. The number of [*u*N] features is the same as the number of times Merge was used with an NP. So, each P had a [*u*N] feature and Merged with an NP, the V had a [*u*N], and the *v* had a [*u*N]. There was one adjunct, adjoined to the Theme NP, so Adjoin was used once.

The sentence that corresponds to this is a ditransitive sentence where the Goal has a PP modifier: *(to) students with IDs*. Neither of the others have this structure: (2) has two *v*P-type modifiers (*with asparagus* and *on Sunday*), and (3) is a transitive verb with a doubly-modified object (*from followers* modifies *questions*, *to questions from followers* modifies *answers*).

(a) [1] Name the θ-role that the NP^1 will have. **Agent**

(b) [1] How many times was Adjoin used? **Once**

(c) [1] How many [*u*N] features were there—total—in these lexical items initially? **Four**

(d) [1] Which of the following three sentences might plausibly include the *v*P in (2)?

1. **Mugar lends books to students with IDs.**
2. Chefs cook omelets with asparagus on Sunday.
3. Serafinowicz writes answers to questions from followers.

7. [1] Circle one. The verb shown in the structure in (2) is...

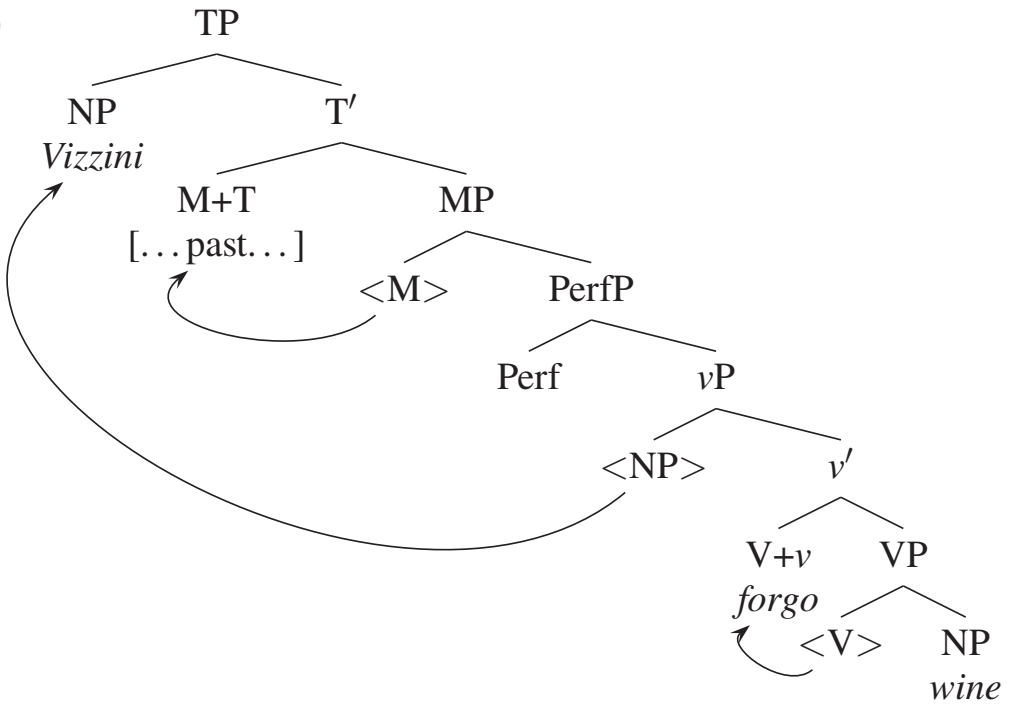
ditransitive / transitive / unergative / unaccusative

8. Suppose you had a sentence with the abstract structure given below in (3). I have provided three lexical items (the NPs *Vizzini* and *wine*, and the bare (uninflected) form of the verb, *forgo*).

The sentence should have been "Vizzini should have forgone wine." It's a reference to *The Princess Bride*, and, well, go on YouTube and search for "battle of wits."

As for the other parts, pretty much everybody got the arrows right, and mostly got the motivations for the two Merges right.

(3)



(a) [1] Draw arrows in the tree that show, when things moved, where they moved from and to.

(b) [1] Write the sentence that this would be the structure for. (If you recognize what the sentence refers to, the missing M I had in mind will be obvious, but if you don't, just pick an appropriate one.)

Vizzini should have foregone wine.

(c) [1] What was the motivation to Merge V and NP?

V had a [*u*N] feature that needed to be checked.

(d) [1] What was the motivation to Merge M and PerfP?

The Hierarchy of Projections—PerfP was finished, M was next on the Hierarchy.

9. [5] Binding Theory. Consider the sentences in (4) below. The first one (4a) can either mean that John moved the book Mary was near, or that John moved the book, with the result that the book wound up near Mary. Here's a controversial part—I was convinced of these judgments last night, and now I am not sure. But let's pretend at least that the judgments are right. Suppose that they are as follows: (4b) can only mean that John moved the book, with the result that it came to be nearby (so, for example, it is hard to add "to the floor" after it—*?John moved the book near himself to the floor*). The third one (4c) can only mean that, of the books that were around, John moved the one he was near (so, *John moved the book near him to the floor* is relatively natural).

To explain this, suppose that we add another binding domain to our Binding Theory—definite noun phrases (like *the book* or *the book near Mary*). So, now there are two things that count as binding domains, clauses and this kind of definite noun phrase within. The task for you is: **Explain briefly how adding this assumption (that this kind of definite noun phrase also constitutes a binding domain) can explain why (4b) and (4c) have only the interpretations they do.**

Hint: The title of this question is "Binding Theory"—expect to find yourself using the word "Principle" and one of the capital letters "A," "B," or "C" in the answer.

(4) a. John$_i$ moved the book near Mary$_j$.
b. John$_i$ moved the book near himself$_i$.
c. John$_i$ moved the book near him$_i$.

There was a typo on the exam itself, which I announced, and I've fixed it above: the subscript on *Mary* needs to be different from the subscript on *John* in (a).

This one threw a few people. It wasn't enough to just restate binding theory (*himself* must be bound within its binding domain, *him* must not be bound within its binding domain)—I mentioned the additional binding domain for definite noun phrases for a reason. Here's the idea:

The book near X is a definite noun phrase, so it constitutes a binding domain. If *X* is *himself*, then there is nothing in the binding domain that binds it, and so that is in violation of Principle A. If *X* is *him*, then it's fine. Having *the book near X* as a definite noun phrase corresponds to the meaning where John moved something that was previously near X to somewhere else. So, that meaning is possible in (c) but not in (b).

If *near X* is not part of the noun phrase but instead an adjoined PP modifying the *v*P (*moved. . .*), this corresponds to the meaning that the moving was *near X*, or that John moved the book from wherever it was to a place near X. If *near X* is not inside the definite noun phrase, then the smallest binding domain containing it is the clause. So if *X* is *himself*, then it is bound within the clause (by *John*), and everything is fine. But if *X* is *him*, then it is bound within the clause in violation of Principle B. So, this other meaning is possible in (b) but not in (c).

Incidentally, this is also why it's ok to say *John lost his keys* (and not *John lost himself's keys*). Here, *his keys* is a definite noun phrase and constitutes a binding domain, so *his* is (properly) not bound within that binding domain.

10. [4] The sentence in (5) is not grammatical in English. But the system developed so far in class predicts that it should be. Explain briefly how to construct what should be a legitimate structure that would result in (5). Include a suggestion about what additional constraint we could add to the system to rule (5) out (this should be relatively straightforward once you identify how to derive (5)).

(5) * Fezzik eats often peanuts.

There was some confusion on this one as well. The instructions were to, first, determine how the system we have *allows* for (5) to be derived. So, deriving it in some way that violates the Hierarchy of Projections, or leaves a feature unchecked, doesn't count—those derivations were already ruled out. Another thing you can't do is adjoin *often* to the verb directly first, before Merging the object—you can't adjoin to things that still have uninterpretable features left to check, and the V had one left to go. Still another thing you can't do with adverbs is *Merge* them, at least the way we have things set up—you only get to Merge when there is a feature checked off, and the verb does not need the adverb (there is no [*u*Adv] feature), and if the adverb needed the verb, this should result in an AdvP, which is also not what we want.

There are a couple of different ways you can do this. The primary one I had in mind was this: Adjoin *often* to the VP, before you Merge in the *v*. Nothing prevents that. But then the V moves up past *often*, and so gets pronounced before it. The additional constraint you could add in this case is just that you can't adjoin *often* (or maybe anything) to VP. A couple of people suggested that maybe you have to wait until all uninterpretable features are checked in the whole structure before you adjoin, but that's not going to work in general (though it was ok for this case). We'll see shortly in class cases where we need to allow adjunction lower than the top of the structure.

Another way you could do it is to adjoin *often* to the noun *peanuts*. This didn't occur to me at first because *often* is an **adverb**. There were a number of people who

were mislabeling it as an adjective, but it isn't, it's an adverb. It modifies verbs. You can replace it with *frequently*. You can't replace it with *boring* or *yellow*. However, we don't have any way in our existing system to enforce this at the moment, so you could in principle adjoin *often* to *peanuts*. If you do that, you can derive (5), in which case you can prevent it by adding a constraint that you can't adjoin adverbs to nouns. (This won't solve the problem outlined first; one also needs to prevent adjunction to VP, but it was fine if you identified one way to derive (5) and solved it, without coming up with the further constraints you'd need.)

A third way that came up was adjoining the NP *peanuts* as if it too were an adverb. That is, use the verb *eat* as an intransitive (unergative) verb, adjoin *often* like an adverb, and then adjoin *peanuts* like an adverb. We don't have any constraint against this, though it feels as if we should prevent "extra NPs" from floating around like this without having been given a θ-role. A constraint like "you can't adjoin NPs to things" would take care of that one.

One other thing: there were a couple of people who supposed that the verb moves up to T. In English, it doesn't, though. We'll talk in class about this soon, but in English all that happens is that V moves to *v*.