1 Not English

[5 points] Observe the following example from Hixkaryana. If you wish to ask a *wh*-question, you use a "*wh*"-word such as *onokà*. As in (2).

(1) toto yonoye   kamara.
     man 3s3o-ate jaguar
     'The jaguar ate the man'

(2) onokà wosà   yonyo?
     who   woman 3s3o-saw
     'Who saw the woman?'

1.1 *Wh*-movement

Based on the evidence you can see in (1) and (2), does Hixkaryana have *wh*-movement? Explain briefly what leads you to your answer.

Hixkaryana does appear to have *wh*-movement, yes. The subject would normally be at the end, but in (2), when the subject is a *wh*-word, it comes first (and even before the object).

One alternative possibility that was brought up as I was grading these is that the subject *wh*-word does not move in (2), but yet the fact that it is a *wh*-word somehow prevents the movement of the VP over it (the VP movement being the one that was suggested in section 1.3 below). That's viable, would require further testing. So, there is a way to get the point here for saying "no"—but it requires an explanation.

1.2 Headedness

Does the head come before the complement in Hixkaryana or after it, based on what we see in (1)? That is, in Hixkaryana like English in this respect, or is it like Japanese?

Heads final, like Japanese. This is fairly transparent, the complement (object) precedes the head (verb). Without a very elaborate story (that would require more evidence than we have), it couldn't really be the other way.

1.3 Verb movement

Making the following reasonable assumptions, does V move to T in Hixkaryana, at least in (1) in particular?

1. the subject in (1) is in the specifier of TP,

2. specifiers of any XP are to the left of the X′ node (specifiers are leftward),

3. given the prior two assumptions, (1) must be derived by moving the VP to the front. Something like: *(I told you I would eat lunch, and...) [eat lunch] I did*.

4. your answer about headedness in (1.2) holds of all phrases (CP, TP, VP).

5. when things move, they move upward in the tree only (not down, not sideways), to a position that c-commands where it came from.

No, V must not be moving to T, since it gets carried along to before the subject.

To elaborate a bit, I considered this to be a close analog to the English VP-fronting example given above. Just as in "Eat lunch I did," the verb stayed inside the VP and as a result got carried along when then VP was moved to the front. If V moved to T, we would have expected VP-fronting in English to sound like "Lunch I ate" and likewise we would have expected (1) to be in the order 'man jaguar ate'. The assumptions listed above ensure that the subject is to the left of T, so if the verb moved to T, the subject should also be to the left of the verb. But it isn't.

This problem was originally a bit overvalued, since guessing "no" by itself gets the points. Guessing "yes" would not, though if an explanation of the reasoning is provided and makes at least some sense, that winds up salvaging some of the points. So anyone who didn't understand the problem at all and just flipped a coin had a chance of getting all the points anyway. Next time I assign a problem like this I will value it lower and ask for the reasoning explicitly. Based on that, I reduced the value of this to just 1 point.
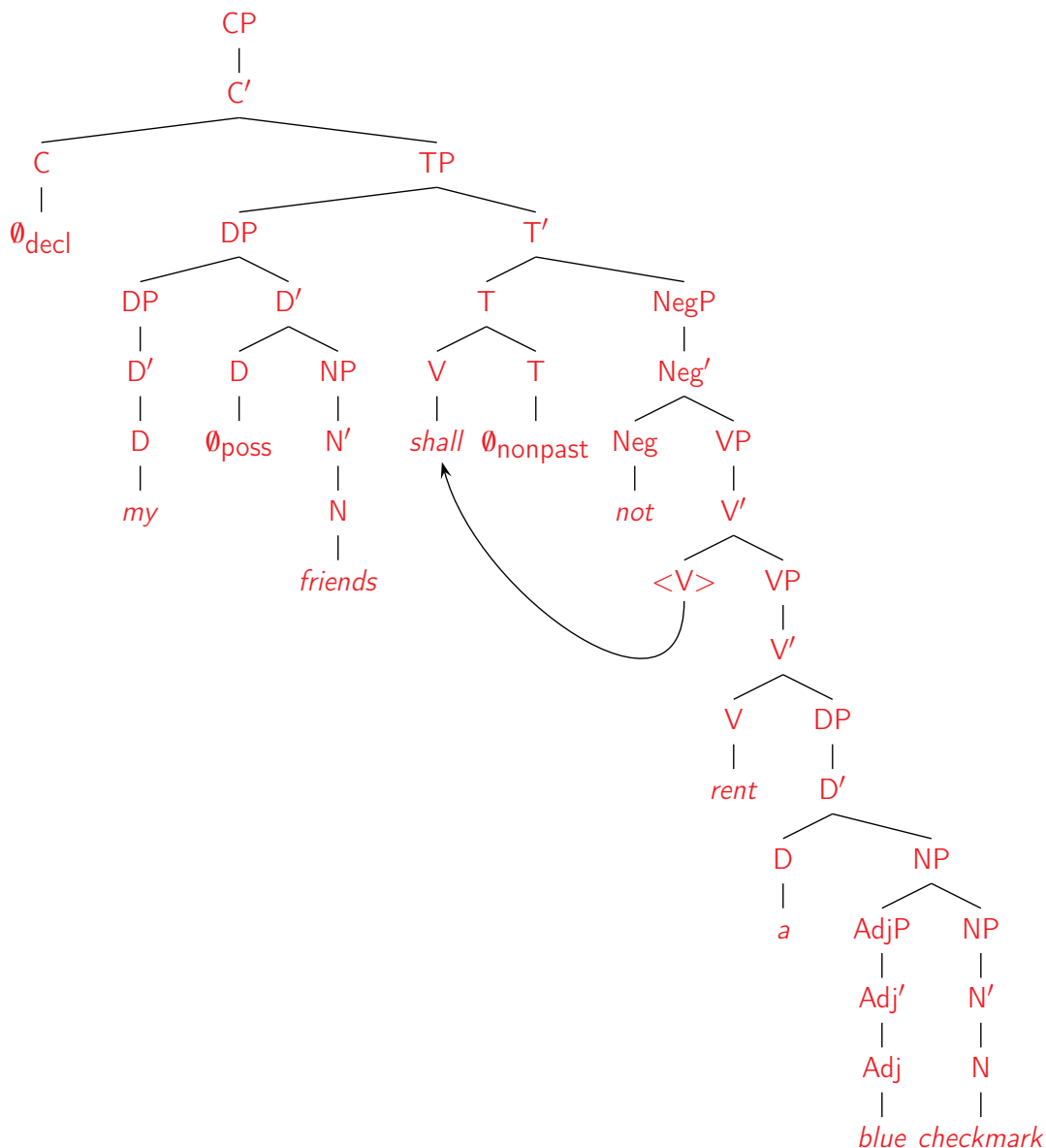
2 Trees

[20 points (4 per tree)] Draw trees for the following sentences, like the model below. Draw the S-structure, with arrows showing the movement, and with $<\ >$ around the position from which something moves. For a double movement (like V→T→C), you can draw it as in this tree, with the arrow for the first movement leading to the "trace" of the second movement. Complex heads (like C below) should be drawn out. Modals and other auxiliaries (like *should* below) should be drawn as verbs (that may move to T). Label silent heads with subscripts (e.g., $\emptyset_{Qwh}$, $\emptyset_Q$, $\emptyset_{proper}$, $\emptyset_{mass}$, $\emptyset_{pl}$, $\emptyset_{decl}$, $\emptyset_{past}$, $\emptyset_{inf}$, ...).
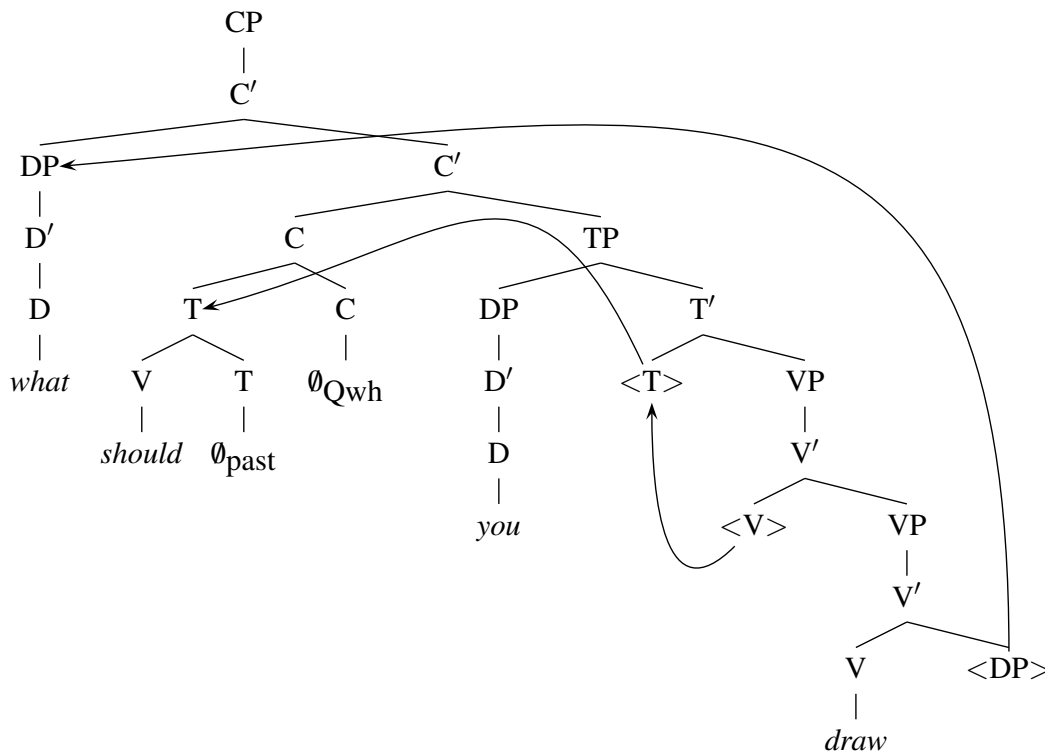
Some people delivered trees that had triangles, or were missing X′ nodes, or even missing all unary branches. I'm not sure why these were considered to be valid options. Triangles by their very nature obscure the internal structure, which is the thing you were being asked to provide, as evidence that you have mastered the system we were building during the semester. And as for the trees missing some of the X′ nodes, our phrase structure rules do not generate such structures. And I've never presented this as a possible option either literally or as a shorthand. (It is possible that this might have been suggested in discussion sections, I suppose. Or in classes other than this one.) I did not explicitly say you needed to include all nodes, but they were there in the example that was to serve as your model. However, in the end, taking points off for this would have severely damaged the scores of some people who clearly understood the problems and seemed to be just using an unsanctioned shorthand. Anyway, in the end, I—very reluctantly—did not take points off for using these shortcuts. But I frowned about it. To the extent I was not clear about what I was expecting, I will try in future semesters to be more explicit I suppose.
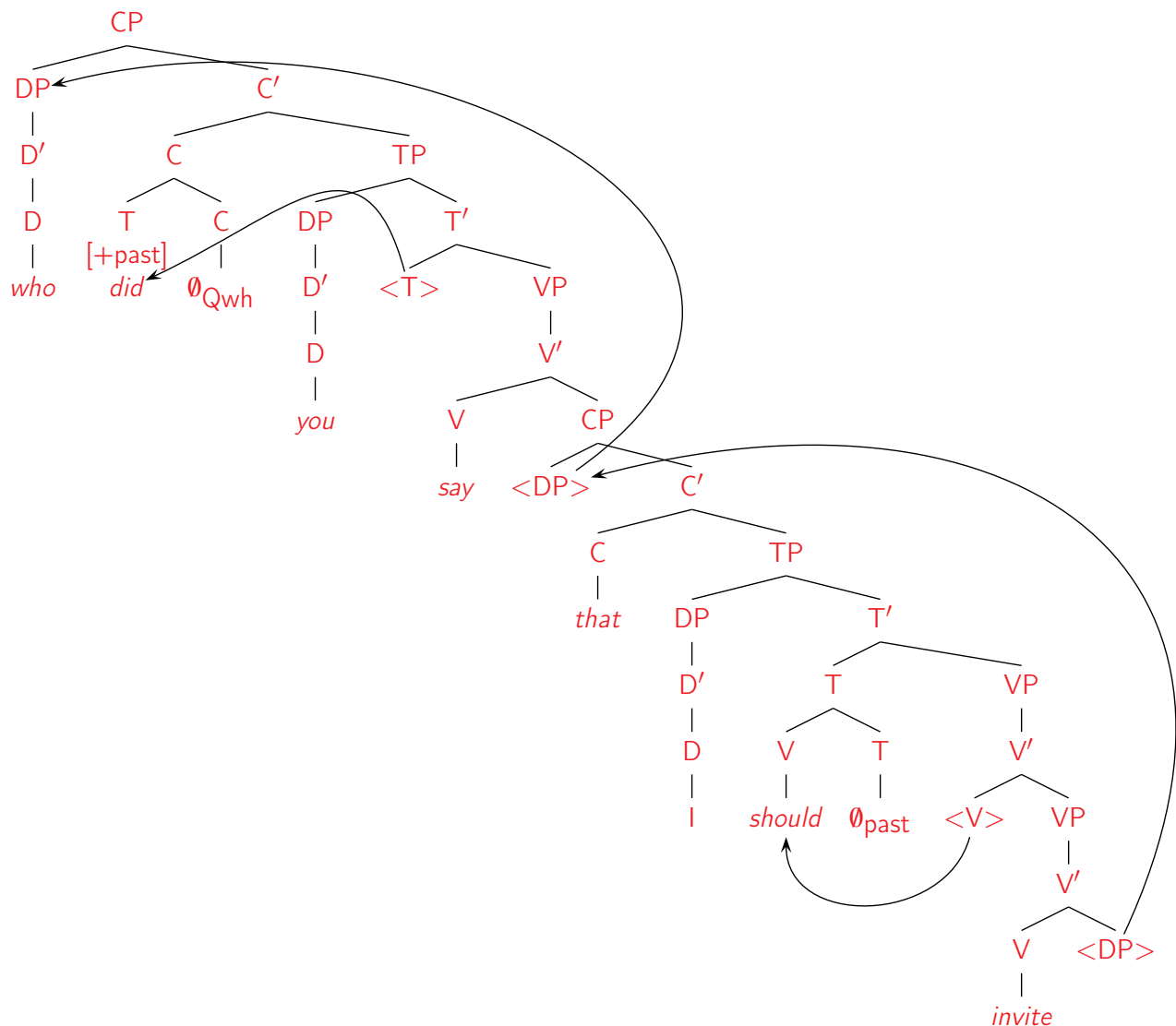
Going along with that, I also did not take points off for an occasional errant missing node if the intention is clear (i.e. missing an N below an N′ before getting to the noun).

The tree diagram:

```
                              CP
                              |
                              C'
                ┌─────────────┴─────────────┐
                C                           TP
                |                ┌───────────┴───────────┐
              Ø_decl            DP                       T'
                         ┌──────┴──────┐          ┌──────┴──────┐
                        DP            D'           T           NegP
                         |        ┌───┴───┐    ┌───┴───┐        |
                        D'        D       NP   V       T       Neg'
                         |        |       |    |       |     ┌──┴──┐
                         D      Ø_poss    N'  shall  Ø_nonpast Neg  VP
                         |              |                      |    |
                        my              N                     not   V'
                                        |                        ┌──┴──┐
                                     friends                   <V>    VP
                                                                       |
                                                                       V'
                                                                  ┌────┴────┐
                                                                  V         DP
                                                                  |          |
                                                                 rent        D'
                                                                        ┌────┴────┐
                                                                        D         NP
                                                                        |      ┌──┴──┐
                                                                        a     AdjP   NP
                                                                               |      |
                                                                              Adj'    N'
                                                                               |      |
                                                                              Adj     N
                                                                               |      |
                                                                             blue  checkmark
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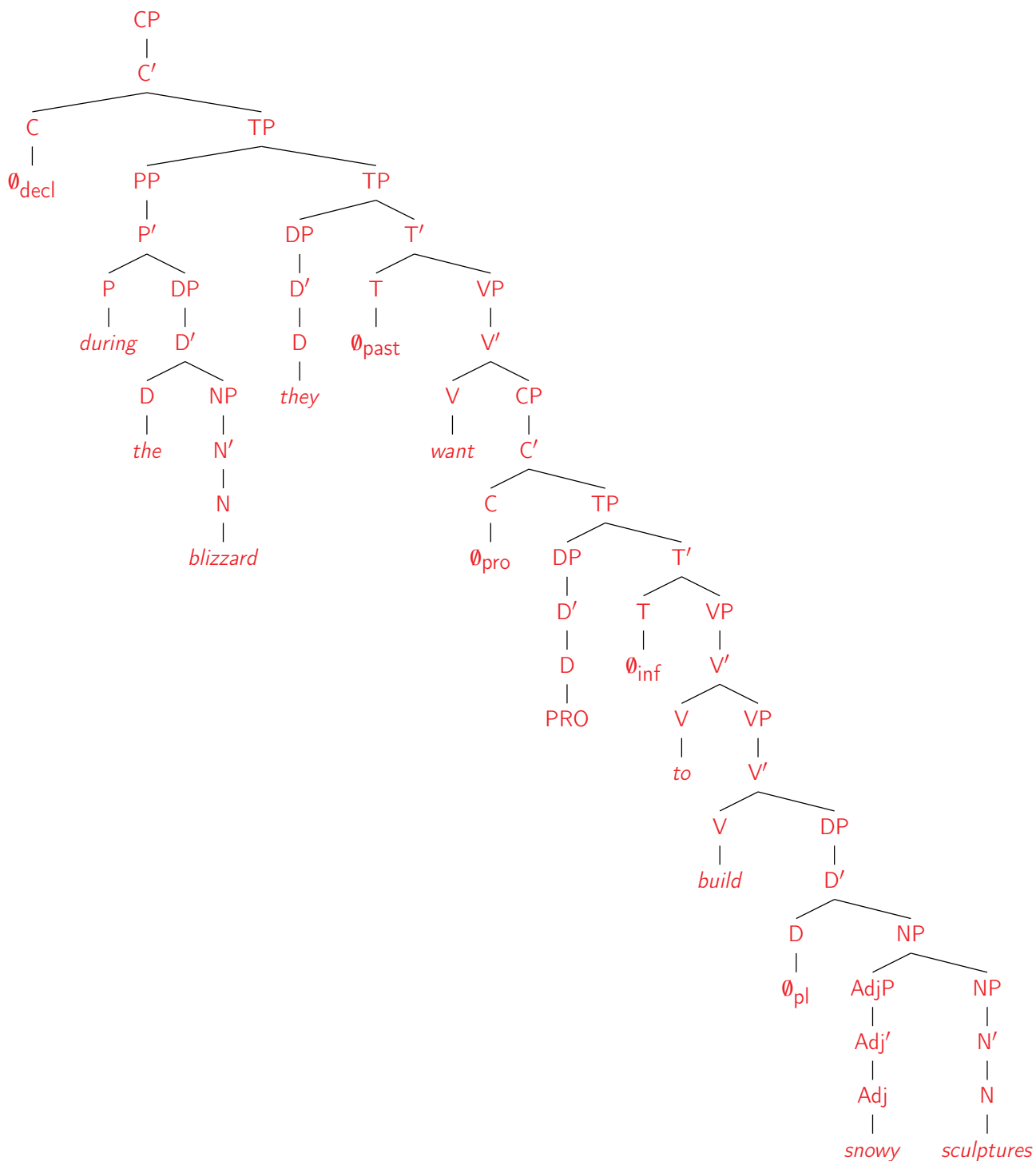(3)   My friends shall not rent a blue checkmark.

(4) Who did you say that I should invite?

This sentence features long-distance *wh*-movement, where a *wh*-word moves from a lower clause into an upper clause. So this is one of the cases where it should transit through the specifier of the intermediate CP. This was something that was repeatedly mentioned ("successive-cyclic *wh*-movement") though the only handout it's written on is handout 15. But, in the end, only 2 people in the class actually drew that stopover, so "well-spotted!" to those two, but I didn't take any points away from anyone else even if the *wh*-word was just moved all the way in one step.

I took no further points off for starting the modal in T (rather than moving it up), since this would be a systematic thing. Either it was misunderstood and points were already lost on the first tree, or understanding was demonstrated on the first tree and now it's just a shorthand. Same thing for drawing out the complex heads.

CP
C′
C
Ø_decl
TP
DP
D′
D
Ø_proper
NP
N′
N
Pat
T′
T
Ø_nonpast
VP
V′
V
know
CP
DP
D′
D
who
C′
C
Ø_whQ
TP
TP
<DP>
T′
T
V
will
T
Ø_nonpast
<V>
VP
V′
V
win
DP
D′
D
the
NP
N′
N
game
PP
P′
P
on
DP
D′
D
Ø_proper
NP
N′
N
Sunday

(5)   Pat knows who will win the game on Sunday.

also accepted an adjective-like modification where the thing being won is "the game on Sunday."

This has an embedded *wh*-question, and T does *not* move to C in embedded questions.

CP
C'
C TP
Ø_decl PP TP
P' DP T'
P DP D' T VP
during D' D Ø_past V'
D NP *they* V CP
the N' *want* C'
N C TP
blizzard Ø_pro DP T'
D' T VP
D Ø_inf V'
PRO V VP
to V'
V DP
build D'
D NP
Ø_pl AdjP NP
Adj' N'
Adj N
snowy *sculptures*

(6)   During the blizzard, they wanted to build snowy sculptures.

This one was actually very similar to the parallel sentence in the previous year, mostly it was just changing the lexical items.

Continuing with the tradition of not taking off points for starting modals in T, I did not remove points if *to* was just started in T. But we did talk about this on a few different days. There is no way to draw *I want Pat not to leave* if *to* is taken to be in T. If this had been *they wanted not to build snowy sculptures*, putting *to* in a lower VP would have been forced.

I adjoined *during the blizzard* to TP, but in fact it probably *can* be adjoined to CP. Based on the fact that this kind of modifier can precede *wh*-words, which we assume are in SpecCP. As in: *during the blizzard, what did you eat?*. So that would mean that *during the blizzard* can only be left-adjoined to CP. Depending on whether we think *what during the blizzard did you eat?* is grammatical, it might be possible still to adjoin to TP. It seems like it's more semantically sensible to adjoin this to TP, so I might suppose that the CP-adjoined position is one that is a result of movement.
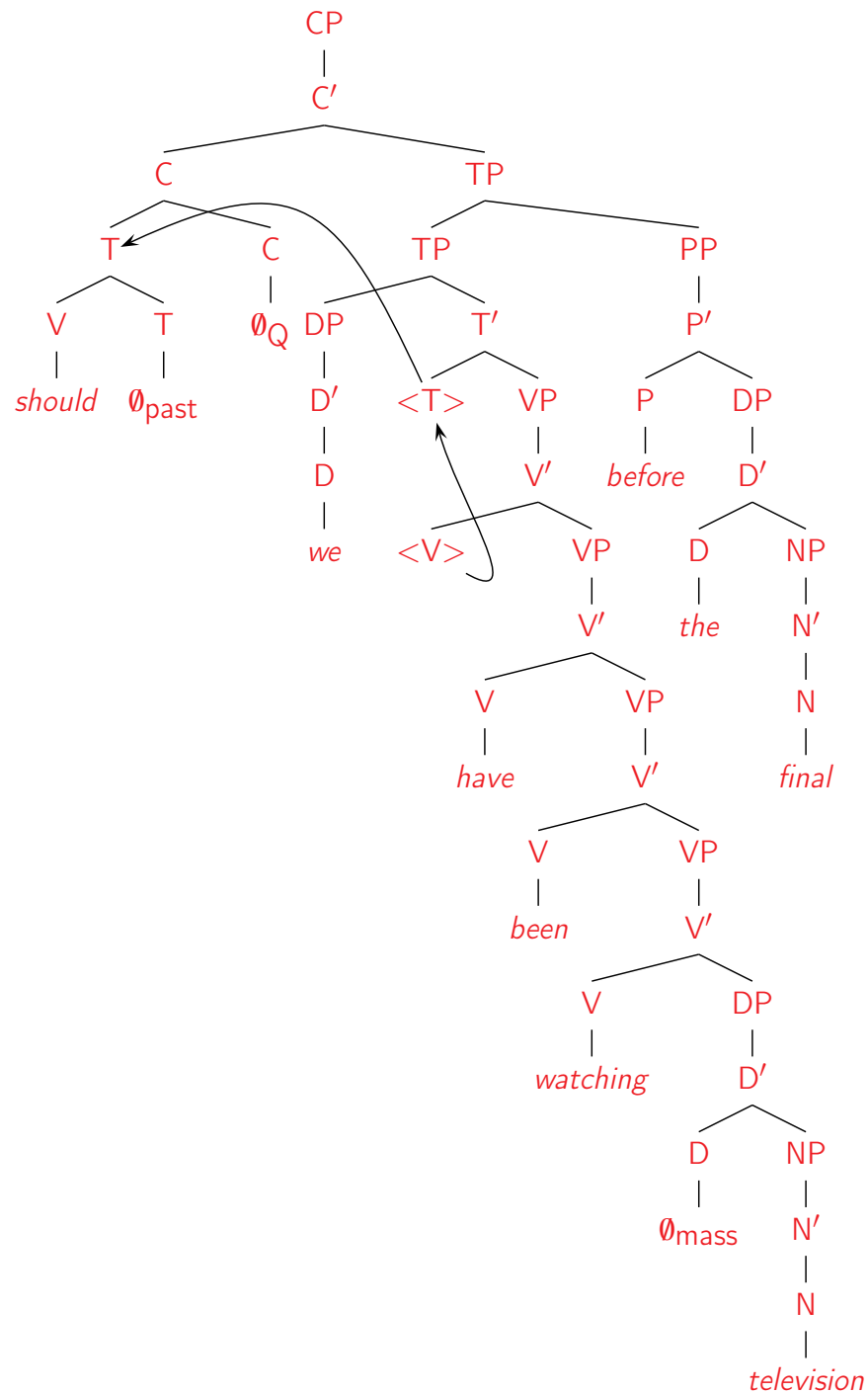
(7)   Should we have been watching television before the final?

Before the final should really modify the TP, or, failing that, one of the VPs. There's really no sensible way to interpret *before the final* as being a characteristic of the television, so it should not be adjoined inside the nominal *television* phrase. That is, it's not really interpretable as anything parallel to "cinema before the 1930s."

3 Inventing examples

[5 points] For each description below, provide a sentence matching the description.

  (8)   A declarative sentence with an embedded *wh*-question
  (9)   A sentence with PRO
 (10)   A yes-no-question with a ditransitive verb
 (11)   A negative declarative sentence with a PP adjunct
 (12)   A multiple *wh*-question with one *wh*-word inside an island

- Nobody knows who will win the game on Sunday.

- I want to leave.

- Could you give me the salt?

- They did not sing at lunch.

- Who bought the book about whom?

The last one (multiple *wh*-question with one *wh*-word inside an island) proved to be somewhat challenging. In reality, a "multiple *wh*-question" is not just any question involving two *wh*-words, it is more specific than that. Both *wh*-words need to "take scope" at the same clause, they need to both be part of the same question. So *Who gave what to Pat?* is a multiple *wh*-question, while *Who knows who left?* is not.

It is evident that this was not clear. The vast majority of examples I got back had one *wh*-question embedded within another one. This doesn't entirely satisfy the intent of having "one *wh*-word inside an island" but strictly speaking, the embedded *wh*-question in that case would be an island, and even the *wh*-word that makes it into a *wh*-island is basically "inside" it. So, there is a way to read (12) that would allow for this.

So, I did expand my definition for the purpose of this test. A *wh*-question with an embedded *wh*-question was also taken as a valid example. I also abandoned any requirement that the second *wh*-word is in an island, given that the question was already unclear. So *Who gave what to whom?* was allowed, even though it does not have any *wh*-words in islands, but is otherwise a multiple *wh*-question of the sort I originally had in mind. Basically the only things that didn't work here were questions with only one *wh*-word, which couldn't really in any way be considered to be "multiple" *wh*-questions.