

# Syntax problem set 2

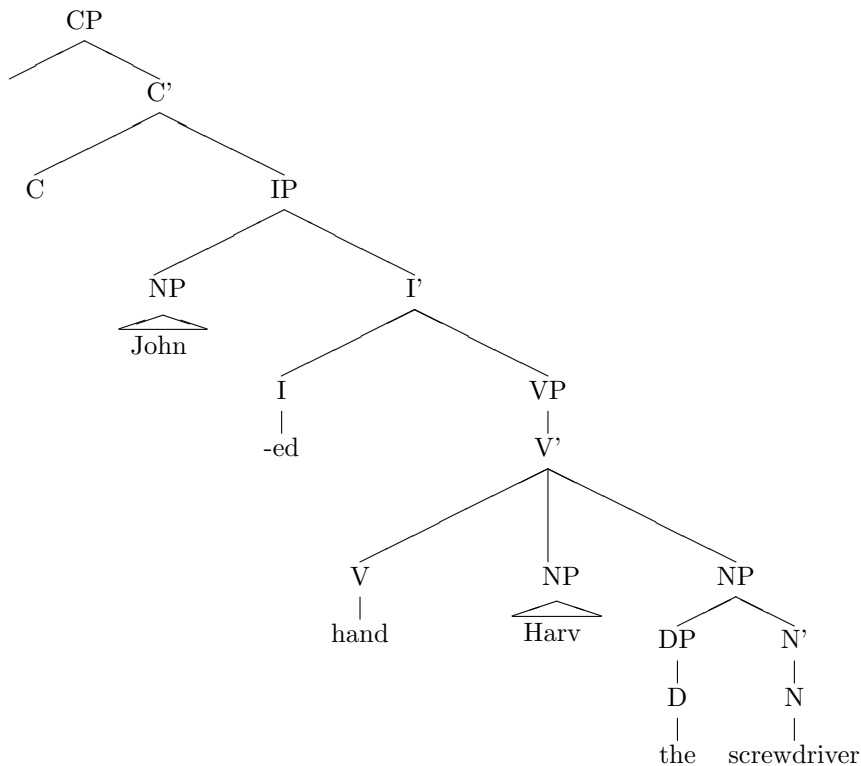
24.900 — Introduction to linguistics

February 28, 2005

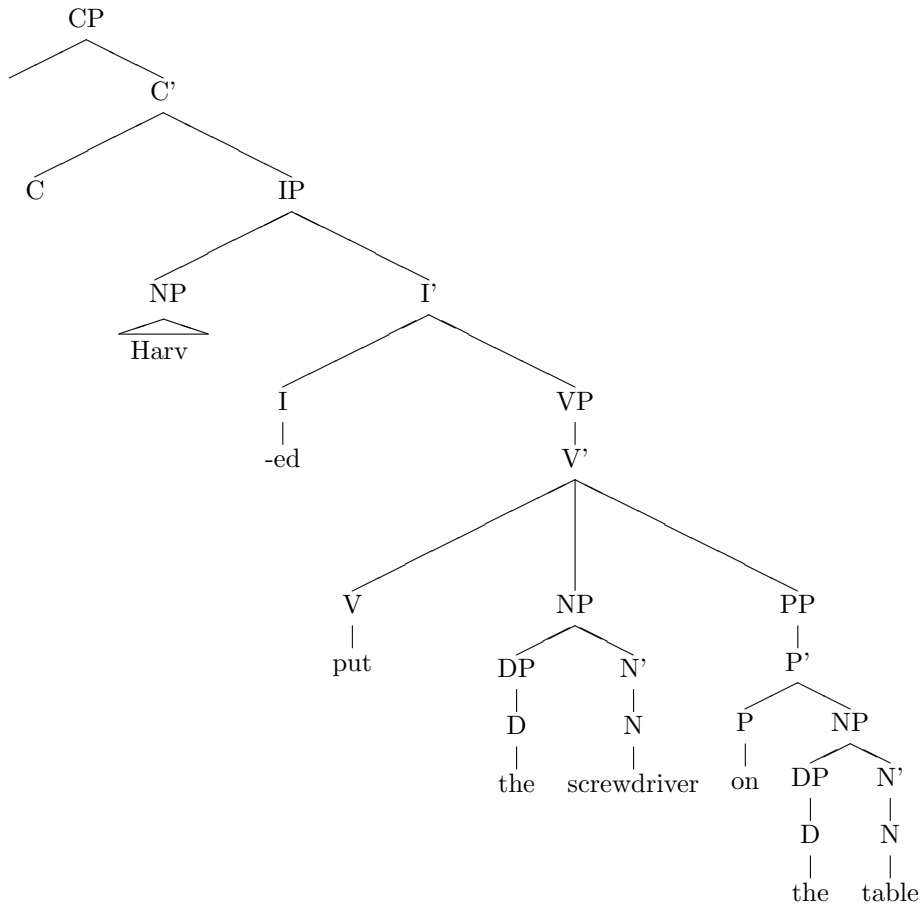
## 1 Tree representations

Draw trees to represent the constituent structure of the following sentences. Your trees should indicate: (1) correct constituent structure and categorial labels; (2) what is an adjunct, what is an argument, and what is in specifier position (by attaching constituents to the correct X-bar level); (3) any movement operations that have applied in the sentence. You don't have to be too prolix about X-bar structure (i.e., there is no need to give all the X-bar levels of a PP or of a DP), but you will be marked down if you omit structure that is relevant.

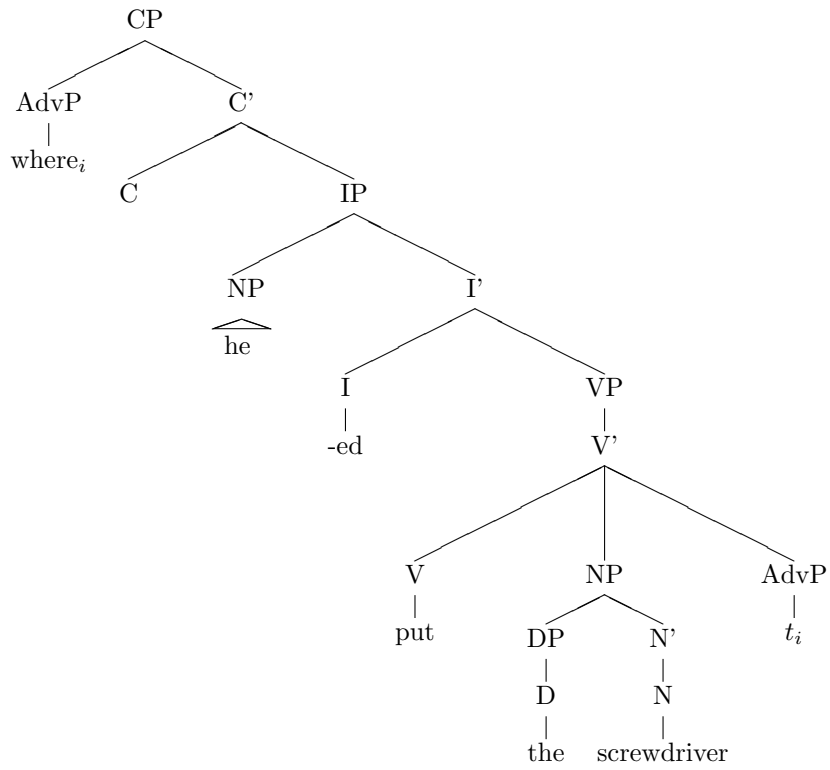
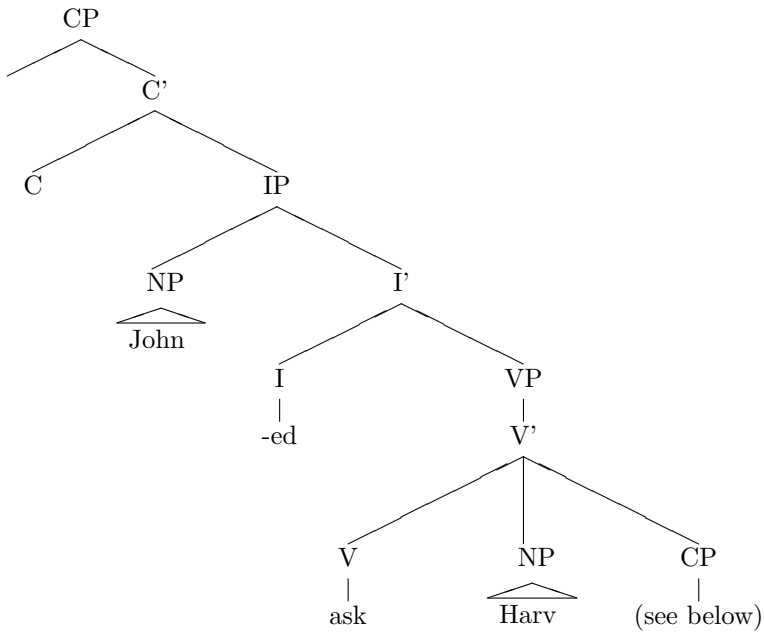
- John handed Harv the screwdriver.



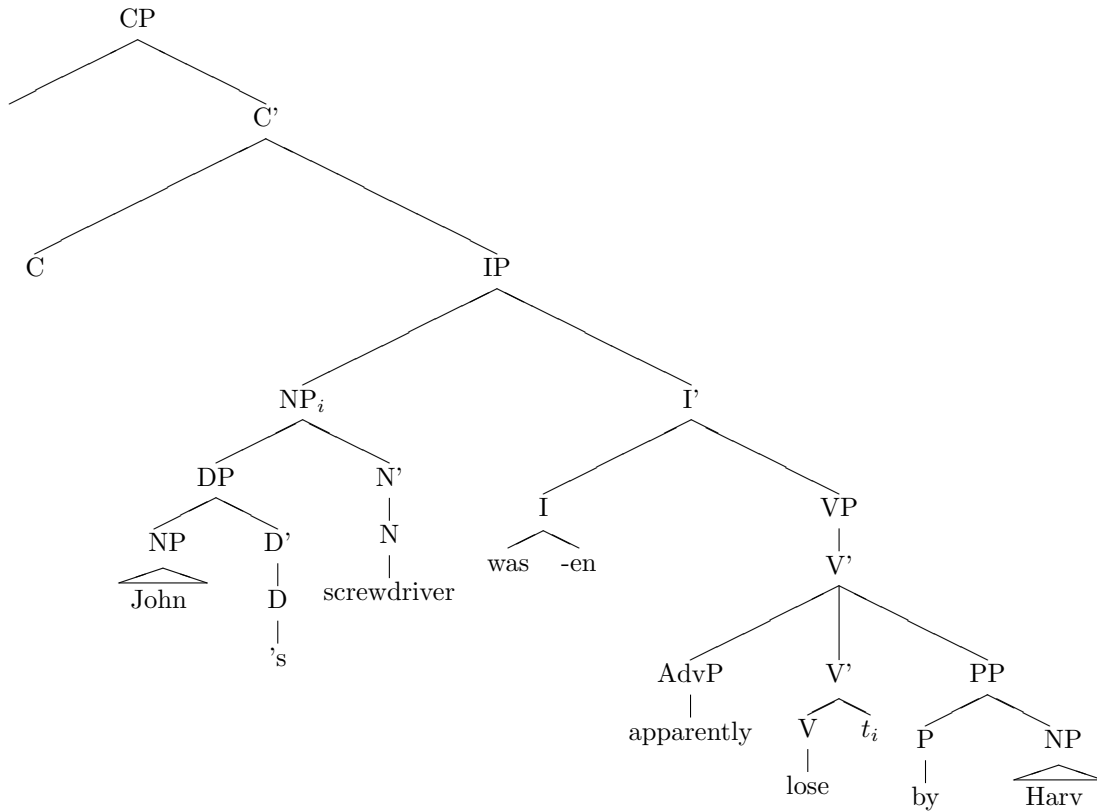
- Harv put the screwdriver on the table.



- John asked Harv where he put the screwdriver.



- John's screwdriver was apparently lost by Harv.



## 2 A-movement

- (1)
  - a. John burned the weed.
  - b. The weed burned.
  - c. \* John burned. (in the sense of "burned something")
- (2)
  - a. The sun melted the snow.
  - b. The snow melted.
  - c. \* The sun melted. (in the sense of "melted stuff")
- (3)
  - a. Mary ate the cake.
  - b. Mary ate.
  - c. \* The cake ate. (in the sense of "someone ate the cake")
- (4)
  - a. John danced a waltz.
  - b. John danced.
  - c. \* A waltz danced. (in the sense of "someone danced a waltz")

From observing the data in (1)-(4), it is clear that intransitive verbs that have transitive counterparts relate to the latter in at least two ways. In verbs like *burn* and *melt*, the subject of the intransitive is what is the object of the transitive, while in *dance* and *eat*, the subject of the intransitive is the same as the subject of the transitive. [There are many ways of making equivalent statements, some not as correct as others, but still valid. For instance: *The snow melted* has almost the same meaning as *The snow was melted*; no such equivalence with a passive sentence can be set up in the case of *John danced*. Instead, passive sentences with

*dance* or *eat* have *a waltz* and *the cake* as their subjects, respectively. Another way, slightly muddled but perfectly acceptable: in *Mary ate*, there is an implied thing that *is eaten*, whereas in *The weed burned* there is an implied thing or person that *burned it* (i.e., the participant that is implied is the subject of the passive form of the verb in the case of *eat*, but of the active form in the case of *burn*). Other ways of stating this exist if you know a little bit about theta roles.]

Other verbs in the *dance* class are: sing, knit, drink. Examples of verbs in the *burn* class are: grow, open, close.

[Note that here we don't answer the questions in the order that they are presented in the problem, since we decided that our exposition would be clearer this way.] We know that in passive constructions, what shows up as the subject in the S-structure is an object in D-structure. In the preceding paragraph, we noted a striking similarity between intransitive verbs such as *burn*, and the passive of their transitive counterparts. [Again, there are other nearly equivalent ways of making the connection.] We propose that *The weed burned* is derived just like *The weed was burned*, i.e., *the weed* is an object in D-structure. The division of intransitive verbs into two classes is therefore a division between intransitive verbs whose subjects are objects in D-structure, and intransitive verbs whose subjects are subjects all along (what we thought was true for all intransitive verbs).

- (5) a. John danced himself dizzy.
- b. \*John danced dizzy.
- (6) a. John jumped clear of the road.
- b. \*John jumped himself clear of the road.
- (7) a. The tomatoes grew tall.
- b. \*The tomatoes grew themselves tall.

[Note that not all of the following was asked for in the statement of the problem; I'm just putting it because it integrates the data better to the rest of the discussion:] The verbs that require *himself* in resultative constructions seem to be those where the subject is a subject all along, whereas those that don't allow it are those where the surface subject is an object in D-structure. This might be related to the fact that the first group of verbs, as we said above, there is an implied object [again, there are other ways of stating this intuition], whereas in the second group there isn't. The presence of *himself* in (5a) might be explained in this way, making this sentence analogous to *John beat himself sober*.

## Extra credit

In English, one can only passivize transitive verbs. In Norwegian, one seems to be able to passivize certain intransitive ones. Given what we said above, it seems that in Norwegian one can passivize those intransitives whose subjects are subjects all along. The rule for passive formation in this language would have to be: "suppress the subject at D-structure; if there is an object, promote it to subject position".

- (8) a. \*det vart snødd  
there was snowed
- b. det vart sunge  
there was sung  
(approximately: "There was singing.")
- c. det vart gestikulert  
there was gesticulated  
(approximately: "There was gesticulating.")