

# 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.

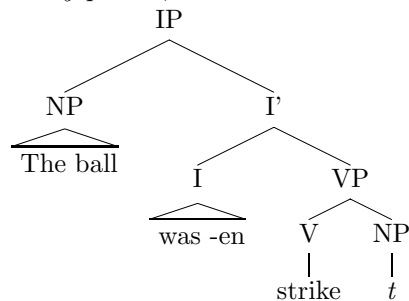
- John handed Harv the screwdriver.
- Harv put the screwdriver on the table.
- John asked Harv where he put the screwdriver.
- John's screwdriver was apparently lost by Harv.

## 2 A-movement

In class, you learned that passive constructions such as (1b) are related to their active counterparts (1a) by a syntactic operation that, among other things, involves the movement of a noun phrase that is originally an object (i.e., in “deep structure”), to the (“surface structure”) subject position.

- (1) a. John struck the ball.  
b. The ball was struck by John.

The structure of (1b), omitting the *by*-phrase, is therefore:<sup>1</sup>



In this problem, you will be asked to extend the reasoning that relates the sentences in (1a) and (1b) in a creative way. The questions below are meant to guide you through the data, but you should feel free to organize your discussion in any way you see fit. The answer to this question should be in essay form.

<sup>1</sup>The morphology isn't transparent in this case, but you should be familiar with the representation where one part of *struck* is in I and another is in V.

Observe the following homophonous pairs of transitive and intransitive verbs in English:

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

- Based on how the argument of an intransitive verb is expressed in its transitive counterpart, how many classes of intransitives can you identify?
- Can you come up with other intransitive verbs that belong to each class that you identified?

Not all intransitive verbs have transitive counterparts. Still, it is possible to assign them to one of the classes that you found above by other criteria. Consider the following data:

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

- How does the necessity of a reflexive (cf. 6a) in the so-called resultative construction (where an adjectival phrase denotes an end-state for the action expressed by the verb) correlate to the classes of intransitive verbs that you identified above?
- Can you think of a way of representing the difference between *dance*-type verbs and (intransitive) *grow*-type verbs structurally? Think of the difference between the surface vs. “deep” position of arguments, which you already encountered in dealing with the passive. How do the data presented above fit in with this representation?

### Extra credit

Some languages allow certain intransitive verbs to be passivized into what is called an “impersonal passive”. Norwegian is one of these.

- (9) a. \*det vart snødd  
there was snowed
- b. det vart sunge  
there was sung  
(approximately: “There was singing.”)

c. det vart gesticulert  
there was gesticulated

(approximately: “There was gesticulating.”)

- Assume that the intransitive verbs that disallow passivization (i.e., 9a) are precisely those of the class that includes *melt* (intr.), *burn* (intr.) and so on, whereas those that can be passivized are those of the class that includes *sing* and *dance*. Can you think of any reason why it should be precisely this way and not otherwise?
- The rule for passive formation in English could be stated as: “remove the subject of a transitive verb, and promote its object to the position of the subject.” Can you state the rule for passivization in Norwegian in a way that minimally modifies the English rule?