Problem 5 solution
Winter 2010 601 final exam

Here’s the original data you were asked to consider, and the questions you were asked about them:

(1) Robin is working on that project.

   i. What is the syntactic status of the string of words *working on that project*? Provide evidence. Let’s call this result Exhibit A.

   **Answer:** This one is easy: both displacement (*…and working on that project, Robin indeed is___*) and replacement (*Robin is working on that project, and Leslie is doing so as well*) make it clear that *working on that project* is a VP. So that’s Exhibit A.

   ii. We’ve noted that ellipsis is one of the signature properties of auxiliaries. In

(2) Robin has worked on that project, and Pat has too.

   iii. what has been ellipsed (i.e., omitted)?

   **Answer:** Again, clearly, *worked on that project* has been omitted.

   iv. Now that you’ve identified what has been omitted, do an independent check on the syntactic status of *worked on that project* in (3):

(3) Robin has worked on that project.

   Can you find evidence that it’s a phrase? If so, what kind? Present two arguments in defense of your conclusion. We’ll call this result Exhibit B.

   **Answer:** Again, easy: we can displace *worked on that project* to give *…and worked on that project, Robin indeed has*, and we can replace it to yield *…and Robin has indeed done so*. So that’s Exhibit B.

   v. Exhibit B tells you the phrasal status of what has been omitted in ellipsis in (2). Let’s assume that this is a completely general result: whenever ellipsis occurs, it always applies to the kind of thing in Exhibit B. This establishes ellipsis as a test for what kind of phrase? We’ll call this result—that ellipsis is a test for a certain kind of phrase—Exhibit C.

   **Answer:** Exhibit A is that the VP *working on that project* associated with the auxiliary *be* is what is ellipsed in (1), and Exhibit B is that the VP *worked on that project* is what is ellipsed in (2). We’re told that this is a representative result for ellipsis. It follows that ellipsis, in general, is a test for VP—and that’s Exhibit C. Repeat: **Ellipsis is a test for VP!**

   vi. Now consider the example in (4)

(4) Pat has been working on that project, and Leslie has too.

   vii. Apply both Exhibit C and Exhibit A to this sentence. What does each of them tell you about the phrase structure of (4)?

   **Answer:** Exhibit A tells us that *working on that project* is a VP. Exhibit C, on the other hand, tells us that what is ellipsed in (4) is also a VP—and since what has been ellipsed in (4) is *been working on that project*, we have to treat *been working on that project* as a VP as well. So we now have two facts: *been working on that project* is a VP, and its substring *working on that project* is, by Exhibit A, a VP.

   And both of these facts must be incorporated into whatever representation of (4) we come up with in the end.
viii. Identify the other phrasal components of (4), using the tests we’ve already introduced.

**Answer:** This should be really easy, given the number of times I’ve talked about this example in class!

ix. State your conclusions about the structure of (4) in the form of a tree diagram reflecting the analysis of the sentence your tests have led to.

The time has come to implement our results. What we know is that *been working on that project* is a VP (by Exhibit C), and that its substring, *working on that project*, is also a VP (by Exhibit A). At the same time, we know that *has* is a verb (since it displays tense, e.g., *has/had*, which only verbs do in English), with the special status that comes from being an auxiliary according to the NICE properties discussed in class. So *had* is an auxiliary (verb), it is followed by a VP *been working on that project*, which contains a VP *working on that project* associated with *been*; we also know that *been* is the head of that VP, since you can omit the rest (*...and Robin has been as well*) but not *been* (*...and Robin has working on that project as well*). This means that we have, following *has*, the bracketing [vp, been [vp, working on that project]], and, bringing in everything else we know about the subphrases of this VP, we have for our final tree representation

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S
   /\    \                   /\   \        /
  |  |    |    VP            |  |  |
  |  |    |  \               |  |  |
  NP  V[auxiliary]       VP
     /\    \           /\   \    /
    |  |    |    VP       |  |  |
    |  |    |  \           |  |  |
    |  |    |   \          |  |  |
      |    |    VP         |
      |    V[auxiliary]   PP
      |    /\              |
      |   |    \          |  /
      |   |     \        |  |
      |   VP              |
      |  /\                |
      | |  \               |
      | |    |            |  \
      | |    |            |    NP
      | |    |            |      on
      | |    |            |        that project
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