24.111: Philosophy of Quantum Mechanics, Spring 2016
Homework 8: Theory and Evidence

1. In class we discussed Instrumentalism, the "Moderate View," and the "Ambitious View." A fourth view is discussed in the dialogue, one that is even more moderate than the Moderate View. It is advanced by person C, just before person A begins to play devil's advocate. State the view in the form: "A body of evidence E favors one theory T1 over another T2 if and only if ...." (You may assume that the relevant bodies of evidence consists in facts about the outcomes of experiments.) [4 points]

2. Here is an argument against the Ambitious View:

   P1. If there is no such thing as objective simplicity, then the Ambitious View is false.

   P2. There is no such thing as objective simplicity.

   C. Therefore, the Ambitious View is false.

   In a few sentences, defend, that is provide some reason to believe, premise P1. (You yourself don't have to believe it; if you don't, try to imagine what someone who did believe it would say.) [4 points]

3. Here is an argument for P2 of the argument in question 2:

   P3. Some people accept "GRW is simpler than Bohmian Mechanics"; other people reject "GRW is simpler than Bohmian Mechanics."

   P4. If some people accept "GRW is simpler than Bohmian Mechanics" and other people reject "GRW is simpler than Bohmian Mechanics," then there is no such thing as objective simplicity.

   C. Therefore, there is no such thing as objective simplicity.

   Do you think P4 is true or false? Explain your reasons. [6 points]