

PHIL*2180
Philosophy of Science, 2015.
Assignment 5.
Due November 25

1. On page 7 of the article on scientific reticence, Kent Peacock offers a list of reasons why scientists might be reluctant to communicate the potential risks of global warming if they are uncertain about the magnitude of those risks. Most of these reasons are identified by Peacock as “not so good” or “regrettable.” Clearly, he thinks that this kind of scientific reticence is bad for society.

Notice, however, that Peacock does not seriously consider the social structure of science that is discussed in Chapter 11 of *Theory and Reality*. In particular, he does not seem to account for the extent to which scientists must trust one another’s results in order to conduct their own research (see p. 164). Do you think that Godfrey Smith’s discussion of trust in science might lead one to a different assessment of any of the items on Peacock’s list?

In your answer, select any two of Peacock’s six reasons and explain why (or why not) that reason might be assessed differently (eg. as not very regrettable) in light of Godfrey-Smith’s discussion.

2. Godfrey-Smith describes the social structure of science as a delicate balance between competition and cooperation. It is competitive in the sense that individual scientists competing with one another for prestige. Often, a good way to gain prestige is to demonstrate that some widely held fact or theory is in fact mistaken. Competition at the level of individual scientists, on this view, generates the community-level benefit of weeding out falsity and dogma.

Peacock encourages scientists to think like emergency room doctors. On pages 8-9 of his article, he lists eight guiding principles that emergency room doctors should follow, and recommends that climate scientists adopt them as well. The key question is whether any of these principles threaten the competitive structure of science and therefore its communal benefit.

In your answer, select any two of Peacock’s recommendations and discuss whether they would potentially undermine the competitive structure of science.

3. The general public is not well informed about the social structure of science and the subtle ways that it functions to produce knowledge. In a few sentences, explain what you take to be the most important thing that you think that the public should know about the social structure of science. And briefly explain how this point might challenge some existing preconceptions about the nature of science.