

PHIL*2000, Philosophy of Biology 2017.

Reflection Questions 8

Due by 3:00 pm. Wednesday, March 22.

Over the past few meetings we have been considering the role of trust in science. Working scientists must be able to trust one another's results in order for progress to occur. At the same time, politicians and other decision makers must be able to trust the work of scientists when forming policy. As members of the public, we too must trust science when making personal health and other life choices.

There is a tension, as we have seen, between this delicate system of trust and the reward system that (arguably) must be in place to keep science going. According to Woodward and Goodstein, scientific progress requires a notoriety-based reward system. We can expect that some scientists will fake their results in order to shortcut this system. Such behaviour is discouraged by a severe system of punishment and by other, informal social mechanisms. But some scientists don't think that this goes far enough. They argue for a complete separation of "science" and "advocacy."

The thinking goes something like this. Although most people recognize that science is not value neutral, it is dangerous (some argue) to allow scientists to also advocate for political or social causes. This could impact their work, either consciously or unconsciously, thus making their results less credible. Hence, there is a tendency to distrust the scientific findings of someone whom is an outspoken advocate. For similar reasons, scientists (especially early career) tend to avoid advocacy.

On the other hand, one might argue that scientists are in the best position to advocate for important social outcomes. In many cases they are the best informed about the likely outcomes of certain actions.

The reading for this week is very short. Robert Lackey voices his frustration with what he dubs "stealth advocacy." We will use this article this week as the jumping off point for our discussion. Please answer the following questions.

1. Reconstruct, in premise-and-conclusion form, Lackey's central argument in this paper. All I am looking for here is a reconstruction. No need to analyze the premises. We will do that in class.
2. Lackey derides the concept of "ecosystem health" as a value-laden policy construct that is passed off as a scientific concept. I would like students to consider whether the concept of a balance of nature also falls into this category. Although Lackey does not mention the balance of nature in the article, I assume that most students are familiar with the idea that ecosystems tend towards some kind of balanced or stable state, and that human activities tend to disrupt ecosystems from this state. I don't want students to do research on this concept. I want you to simply draw on your common sense as biology students. Based on your intuitive understanding of this term, explain whether the concept of a balance of nature the same kind of value-laden science that Lackey criticizes?