Moreno, Melissa

There are many philosophical concepts and frameworks that align with my personal philosophy. Going through the class has really given me insight into what I personally believe and what I hold to a higher standard when it comes to scientific thinking.

Russell (1931) notes that many scientists confuse theories and facts, and I do agree with this concept. I believe that a lot of scientists have their own biases and sometimes they think that their own research is “factual” even if it isn’t. I don’t agree with Russell (1931) in saying that science is straightforward, because I personally believe that science is a journey and that there is no way in ecology for it to be straightforward.

Hume argues that the only reliable human knowledge is based on sense impressions and ideas and memory-images of perception and their validity is traced back to the data from which they arose. I don’t necessarily believe this because I do think sometimes people can think of a new idea, but nowadays it’s almost impossible to have a completely originally ideas since a lot of ideas have already been address in since, even if it’s just in theory. However, I do agree with Hume in that if a person has an idea, they will try to make is precise. I do think people are naturally curious and would try to narrow down their idea.

Kant had a new approach, for the time, that there should be no conflict between science and religion when it comes to science. I really don’t agree with this approach at all. I honestly believe there should be no religion in science whatsoever, and personally, in my opinion, really don’t understand how a scientist could be very religious and call themselves a scientist. I suppose that is a controversially topic, but I think that there should no science to be guided by religion.

Karl Popper harps on falsifying every possible and impossibly hypothesis to prove a theory. Popper claims that scientists are also only interested in falsification. This also implies that falsification only needs deductive reasoning. This can mean that science can be purely driven by observations without any prior theoretical observations. I don’t agree that science can only be driven by observations, and in ecology it is important to know the history, of lets say an ecological system, so that you don’t have to waste time falsifying a lot of hypothesis that might have already been tested. However, with ecology sometimes already “falsified” hypothesis might come back and be true, but at least the current research will be able to look back to previous work to help inform their science methods. I also don’t agree with Popper think that methods lead to a lot of theories in ecology, because measuring any biological system or species is difficult so the methods and measurements won’t be able to tell you more than what you are collecting, normally. I do think that methods are very important in science, and methods should be solidified before science starts, and that normally begins with a well thought out question.

Platt main argument was that science needs strong inference for a hypothesis and emphasizes the need for alternative hypothesis, rather than one single hypothesis to avoid confirmation bias.

Chamberlin

Kuhn

Lakatos

Feyerabend

Cooper