

Philosophy 3330 Spring 2021  
Reading questions #8  
Due Tue, March 16

Read Chapter 6 of James Ladyman's *Understanding Philosophy of Science* and then answer the following questions. Your answers should be uploaded in Blackboard.

1) What does it mean for two theories to be weakly empirically equivalent? What does it mean for two theories to be strongly empirically equivalent? If two theories were weakly empirically equivalent, could there be a way to choose between them? What if they were strongly empirically equivalent?

2) Some views such as van Fraassen's constructive empiricism depend on there being an important distinction between the observable vs. the unobservable (since roughly speaking, constructive empiricists think that science isn't even trying to tell us about unobservable phenomena). Which of the following things do you think are observable and which are unobservable?

- a) Joel's height
- b) the surface of Jupiter right now
- c) the surface of Jupiter 10 million years ago
- d) genes
- e) electrons
- f) things about the universe before the big bang
- g) whether Maria loves Jose (two particular people I mean)
- h) heaven

Which of those things do you think belong in the purview of science? Now think about your answers to the questions above. Now do you think that science is limited to telling us about observable phenomena? Explain your answer.

3) After reading the chapter, try to come up with a question that you want answered or a topic that you would like to be discussed further. This could be something that the chapter forced you think about or it could be something that you thought was particularly confusing in the chapter.