

Reading Assignment 16: Shapin on the Scientific Revolution

Assigned Reading S. Shapin. *The scientific revolution*. University of Chicago Press, 1996. Chapter 2.

Due Date Please bring a typed, hard copy of your answers to class on Thursday, March 2nd, 2017.

Technical Requirements Answer questions one, three, seven and eight below. Together, your answers should not be longer than a single typed page. Remember to provide page numbers indicating which passages you are paraphrasing. For the remaining optional questions, please write down the page numbers on which the authors address the question.

Questions

1. What was Harvey's discovery and why does Shapin mention Harvey when he claims, "most 'revolutions' effect less sweeping changes than they advertise or than are advertised for them?" Summarize one other example that Shapin gives for this claim.
2. According to Shapin, "Christian theology assured the devout that the senses of human beings following the fall from grace were corrupt, and that reliable knowledge was not to be had by trusting such debased sources." In no more than a paragraph, explain two ways that mechanical philosophers responded to this argument.
3. Summarize William Gilbert's argument that studying scholastic texts is useless for acquiring knowledge, even if much could be learned from Aristotle and other ancient (generally Greek) philosophers.
4. Why does Shapin claim that, according to modern philosophers, "If experience was to play its foundational role in a reformed and orderly natural philosophy therefore, it had to be controlled, monitored and disciplined?"
5. In what ways did controlled experiments provide "convenience" according to Shapin?
6. Describe two ways in which experimental findings were made to "travel . . . from the individual to the public domain."
7. What is a "crucial experiment?" What two hypotheses did Newton's crucial experiment mean to test? In no more than a few sentences, describe Newton's experiment.
8. According to Shapin, "The experimental program of the early Royal Society was dedicated to the reform of natural philosophy through curing dogmatism." In no more than a paragraph, explain why Hooke criticized Newton's description of the outcome of his optical experiment and how Hooke's criticism was an outgrowth of the "the experimental program of the early Royal Society."