

*Study Questions for Part II of Grinnell, Everyday Practice of Science*

1. Much of the funding for basic science research comes from various governmental entities – National Science Foundation, National Institutes of Health, etc.
  - a. What is the distinction between “basic science research” and “applied research?” What would be an example of each type of work?
  - b. What pressures does this fact about funding put on scientists, according to Grinnell?
  - c. To what extent does Grinnell seem to think that research misconduct (falsifying results, “stealing” the work of others, etc.) is a serious problem? Is there a corrective feature built into the way the credibility system works that tends to support Grinnell’s view here?
  - d. Is the governmental funding system preferable, do you think, to having more funding by private companies (for instance drug companies, or technology companies)? On what are you basing your point of view? (Note: those companies do do a lot of funding of more “applied” research.)
2. What are Grinnell’s issues with “patent and prosper” versus “publish or perish?”
3. Given that a lot of the money for research is coming ultimately from the public, what level of “accountability” should the public demand for the results? To what extent should political conflicts, or moral or religious principles be guiding the course of science research? For instance, what do you think about former President Bush’s policy of denying Federal funding to embryonic stem cell research?
4. What are the facts behind the Tuskegee syphilis study described on pages 131 and 132? (You may want to look into this in more detail in other sources.) What was the real ethical issue here? Was it doing a study like this at all? Was it the fact that an effective treatment for syphilis became available after the study started, but the study went on unchanged? What effects do you think the revelations of the way the study was carried out had on the level of trust African-Americans had in medicine and government agencies?
5. What are the currently accepted basic ethical principles of studies involving human subjects? What are some of the documents or statements embodying these principles? How can those come into conflict with the good features of the double-blind randomized controlled experiments that we know minimize possible confounding effects? How is genetic research on human subjects especially sensitive?
6. What is Grinnell’s point of view on the relation between science and religion? Does this seem like a productive way to look at things to you?