



Online Ethics Center
FOR ENGINEERING AND SCIENCE

Chapter 4: Case Studies

Author(s)

Michael Pritchard
Theodore Goldfarb

Description

An introduction to the case studies in *Ethics in the Science Classroom*

Body

The teaching of ethics is particularly suited to the use of illustrative case studies. Such narratives can be used to present examples of a range of significant ethical issues related to some human enterprise and many of the complexities associated with each of the issues. The cases can be either fictional or they can be based on actual events.

In our Summer Institute instructional program we used a series of real-life case studies to illustrate several of the key ethical issues related to science. The teachers found these cases helpful in enhancing their in-depth understanding of the issue and in suggesting practical topics for the development of classroom ethics lessons.

In this chapter we present six such case studies, including five that were used, to good effect, during our Summer Institute instructional program. Each is based on a real case. The cases and major associated ethics issues are: [Overly Ambitious Researchers -- Fabricating Data](#) (scientific misconduct); [The Millikan Case](#) (issues related to the collection, treatment and presentation of scientific data); [The Tuskegee Syphilis Study](#) (issues concerning research on human subjects and the influence of racial prejudice on science); [The Search For the Structure of DNA](#)

(competition vs. cooperation, and sexism in science); [The XYY Controversy](#) (genetics and biotechnology research issues); and [Love Canal](#) (environmental protection issues).

Each case includes:

1- Introduction. A discussion of the nature and significance of the types of moral issues raised in the case.

2- Background. Background discussion designed to place the case in an appropriate context.

3- Case Study. A narrative presentation of the particulars of the case.

4- Readings and Resources. A brief list of suggested readings (as well as videos and other educational material) that can be consulted to get a more thorough understanding of the case in question, related cases, and the associated ethics/values issue.

5- The Issues. Sets of questions designed to elicit thought and exploration concerning both the specific ethics/values issues raised by the case, as well as related issues.

Rights

Use of Materials on the OEC

Parent Collection

Ethics in the Science Classroom

Topics

Case Study Method

Discipline(s)

Teaching Ethics in STEM

Research Ethics