"With or Without Popcorn:
Controversy in Science"

Patricia S. Bowne

'Keep your mouth shut in washrooms!' Dr. Henderson advises the alienated outsider Banting, ranting about his wrongs in the movie "Glory Enough for All." Henderson's right; those feet in the stall belong to Banting's supervisor (and now, enemy), J.J.R. McCloud. Banting and McCloud will share the Nobel prize for discovering insulin, but will hate one another to the bitter end.

For three years I've started the philosophy of science class with this movie. It provides a common basis for the students to work from, and analyzing it can take you far in explaining some of the controversies and terms in philosophy of science. Take the divide between the "prescriptive," "internalist" philosophers of science and the "descriptive," "externalist" or "historicist" studies of today. You can lecture on this distinction, or students can discover it themselves in analysis of a movie.

Prescriptive analysis tries to tease out the scientific method. How did Banting design his experiment, what did he do right and what mistakes did he make? What rules for doing science would the students derive from this example? My students will see more of this kind of analysis when they read Karl Popper.

Even before they've written their rules, my students begin to revise them. They notice that Banting would have done much better if he could have explained his work to peers. They criticize his habit of drinking lab alcohol out of beakers. These factors, apparently irrelevant to the chain of scientific reasoning, are what catch the viewer's interest. But how irrelevant are they?

The longer students analyze the movie, the more personality traits intrude into our discussion. The same passion that led Banting to throttle a colleague drove him to spend his own money on experimental animals. Can we really come up with cut and dried rules of how to conduct science, picking out some points as more important than others? My students fall between internalist observers of science like Jacob Bronowski, who try to distinguish relevant from irrelevant events, and externalists or historicists like Bruno Latour who analyze the lab as an alien culture, any of whose aspects may be relevant to the results.

Students don't usually think it relevant that all the scientists in the film are white males, only one with any child care responsibilities. They don't notice tensions between old world and colonial scientists, or between eastern and western Canadians. I can cite these, though, when we discuss social analysts of science like Evelyn Fox Keller and Marion Namenwirth. We'll look at the movie as an artifact when we discuss the heroic model of science and its assumptions. We'll use the movie all semester for data, for examples, for a common language. It's a good investment of class time, with or without popcorn.

"Glory Enough for All" is based on the book "The Discovery of Insulin" by Michael Bliss, who also wrote "Banting: a biography." The movie is available from Cyclops Communications Corporation, 44 Gibson Avenue, Toronto, M5R 1T5, Canada. It runs three hours.

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