

FRAUD AND THE ROLE OF INTENTIONS

The acid test of scientific fraud is the intention to deceive, but judging the intentions of others is rarely easy. The case of William Summerlin illustrates both situations: an instance of blatant fraud and a previous history in which the origins of serious discrepancies are harder to determine.

In 1973 Summerlin came to the Sloan-Kettering Institute for Cancer Research in New York, where he subsequently became chief of a laboratory working on transplantation immunology. For the previous six years, Summerlin had been studying the rejection of organ transplants in humans and animals. He believed that by placing donor organs in tissue culture for a period of some days or weeks before transplantation, the immune reaction that usually causes the transplant to be rejected could be avoided. The work had become well-known to scientists and to the public.

However, other scientists were having trouble replicating Summerlin's work. Another immunologist at Sloan-Kettering was assigned to repeat some of Summerlin's experiments, but he, too, could not make the experiments work. As doubts were growing, Summerlin began a series of experiments in which he grafted patches of skin from black mice onto white mice. One morning as Summerlin was carrying some of the white mice to the director of the institute to demonstrate his progress, he took a felt-tipped pen from his pocket and darkened some of the black skin grafts on white mice. After the meeting, a laboratory assistant noticed that the dark color could be washed away with alcohol and within a few hours the director knew of the incident. Summerlin subsequently admitted his deception to the director and to others.

Summerlin was suspended from his duties and a six-member committee conducted a review of the veracity of his scientific work and his alleged misrepresentations concerning that work. In particular, in addition to reviewing the "mouse incident," the committee examined a series of experiments in which Summerlin and several collaborators had transplanted parts of corneas into the eyes of rabbits. The committee found that Summerlin had incorrectly and repeatedly exhibited or reported on certain rabbits as each having had two human corneal transplants, one unsuccessful from a fresh cornea and the other successful from a cultured cornea. In fact, only one cornea had been transplanted to each rabbit, and all were unsuccessful.

When asked to explain this serious discrepancy, Summerlin stated that he believed that the protocol called for each rabbit to receive a fresh cornea in one eye and a cultured cornea in the other eye. Summerlin subsequently admitted that he did not know and was not in a position to know which rabbits had undergone this protocol, and that he only assumed what procedures had been carried out on the rabbits he exhibited. After reviewing the circumstances of what the investigating committee characterized as "this grossly misleading assumption," the report of the investigating committee stated: "The only possible conclusion is that Dr. Summerlin was responsible for initiating and perpetuating a profound and serious misrepresentation about the results of transplanting cultured human corneas to rabbits."

The investigating committee concluded that "some actions of Dr. Summerlin over a considerable period of time were not those of a responsible scientist." There were indications that Summerlin may have been suffering from emotional illness, and the committee's report recommended "that Dr. Summerlin be offered a medical leave of absence, to alleviate his situation, which may have been exacerbated by pressure of the many obligations which he voluntarily undertook." The report also stated that, "for whatever reason," Dr. Summerlin's behavior represented "irresponsible conduct that was incompatible with discharge of his responsibilities in the scientific community".

Source:

"On Being a Scientist", Committee on the Conduct of Science, National Academy of Sciences. National Academy Press, Washington, D.C., 1989, page 15, ISBN 0-309-04091-4