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History of Science and Technology

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Reflection 2

One of the aspects of the class that has been touched on recently is the ethics of scientific advancements. It is something that I hope we will be continuing to discuss it throughout the rest of the semester, as it is a large part of whether unethical scientific discoveries are accepted.

I think it is interesting to see how what is deemed unethical now was perfectly normal in the past. Medical students used to steal dead bodies from graveyards and morgues in order to do autopsies and learn more about the human body. Now-a-days it is not only unethical, but also completely immoral to do something like this, to disturb someone’s final resting place. It is even unethical to disturb historical/ancient burial sites, so it is very unsettling that recent burial sites were raided for cadavers.

In more recent history, animal testing has become a more and more disconcerting topic when it comes to testing all sorts of products and medications. Although there are many forms of animal testing that will probably always be used, many companies, mainly cosmetic and beauty product companies, have started to change the way they test their products. While I don’t know if there will ever be a suitable and more accurate way to test medications to ensure they are safe for human trials, I do think that finding suitable substitutes and moving away from animal testing for beauty products is a huge step forward in scientific advancements and becoming a more ethical society.

On the subject of testing medications, I recently read a “fun fact” of sorts on Facebook about a scientist who was so confident in his work that, after not getting cleared for human trials, he decided that he would just ingest the bacteria he believed caused stomach ulcers himself, as it was unethical to give it to anyone else. I decided to look into this a little more, and found out that Barry Marshall and his partner Robin Warren discovered there was a bacteria called Helicobacter pylori was the cause of stomach ulcers, and it was not, in fact, stress. Because of the taboo on animal testing, and the fact that H. pylori only affected primates, they could not prove their hypothesis with lab rats. Since human trials are not permitted without proper test results with lab rats, Marshall decided to just test his theory on himself, and proved that the bacteria is the cause of ulcers. (He and Warren went on to win a Nobel Prize).

I think that it is interesting to look at how much the ethics of science and technology have changed over time and how the determination and confidence of a few scientific minds can change the course of how we look at things as simple as make up or as complex as stomach ulcers.

I pledge my honor that I have abided by the Stevens Honor System.

Sources:

Cosmetic Animal Testing:

<http://www.nytimes.com/1989/08/02/business/cosmetics-companies-quietly-ending-animal-tests.html?pagewanted=all>

Barry Marshall and Robin Warren:

<http://discovermagazine.com/2010/mar/07-dr-drank-broth-gave-ulcer-solved-medical-mystery>