Week 3 Writing

In nature, science is a progress of finding the truth. There is a group of people who work from generation to generation and devote all their intelligence to find some truth during the whole life. They are called scientists. It is the curiosity of human that makes the society develop and establishes the modern civilization. Therefore, at any time, we should always be grateful to the contributions made in science and respect the work of scientists.

Despite the excitement of success in finding the truth, the path towards a correct answer is always tough. Most of the researchers, even some of the best scientists, might get lost or make inappropriate decisions along that path. As demonstrated by Aschwanden (2015), a rigorous result in science requires the researcher to be really careful about their approaches, and improper manipulations will lead to wrong conclusions. One example provided in the article (Aschwanden, 2015) is that we can get different results (p-values) by manipulating the sample space and factors for the research question that whether American economy is affected by the political parties. This is a form of "p-hacking", which illustrates that over-manipulation to the research procedure could lead to biased results.

It is often the case that the result of a research is different from what we expect. Under some social pressure and the strong intension to find the "truth", researchers might tend to involve personal bias as they explore more about the question. When the process becomes proving something to be true instead of finding the truth, it is no longer science any more.

From my perspective, understanding how science is supposed to work not only helps in conducting a rigorous research on your own but also helps you keep a clear mind in judging whether a conclusion drawn by others is reliable.

Reference:

Aschwanden, C. (2015). *Science Isn't Broken: It's just a hell of a lot harder than we give it credit for*. Retrieved from https://fivethirtyeight.com/features/science-isnt-broken (Links to an external site.)