Summary

George Orwell’s “What is Science” is a response to a letter by Mr. J Stewart Cook in the *Tribune*. Cook believes that the general public should be scientifically educated and that scientist should be more involved publicly with politics and administration. Orwell points out that Cook does not define science and that it could be a variety of subjects depending on who you ask. He then points out that scientists are usually restricted to one specific topic so generalizing that scientists should be more involved in politics is a dangerous precedent. Furthermore, he reasons that scientists have no incentive the be honest or moral with their opinions as evidenced by the production of the atomic bomb by many countries. In addition, he argues that science should be international but gives the example of Nazi Germany and how their scientists didn’t have “the ability to withstand nationalism”. Orwell goes on to say that more science education would be useless and could in fact be harmful to the general public. He also points out that scientific education should be a state of mind and not just acquiring more facts. Throughout his essay Orwell points out that he doesn’t think scientists are any more or less valuable than those in the arts and that both are necessary. Lastly, he shows that people whose interests are not purely scientific may be better for the world by stating that many British and American physicists abstained from working on the atomic bomb due to the implications.

Response

In this piece George Orwell breaks down his definition of science to construct a rebuttal showing that it is not necessary to provide more science education or make science more political or public. In order to do this, Orwell defines science in two ways: the exact sciences and a way of thinking that emphasizes reasoning from fact.

In modern society we still use the first definition to generally describe the sciences. While the second definition is still very much present, it is taken as a general truth. Modern scientists take their reasoning and facts and put them in research papers that are publicized to the world. This makes scientific discoveries more international than during Orwell’s time. In my experience, our modern education system emphasizes reasoning from facts to prepare students for jobs later in life. While Orwell’s method is emphasized, it isn’t explicitly stated and many classes can be passed just by memorizing the facts instead of using reasoning. In the modern age our education system defines science through Orwell’s first definition and students pick what specialty or combination of specialties they would like to pursue. I can say I properly fit into the first definition being a computer science major which is an exact science as Orwell describes. On top of that, I have the option to minor in other exact sciences such as chemistry, biology, etc. While the pursuit of science is a noble task, scientists need to make a living which can often lead one to produce questionable or skewed results to fit a narrative for a social issue. Therefore, social issues can be very polarizing for scientists as many have the power to destroy or make careers. Unfortunately, in modern times it is necessary for science to become political to achieve results and secure funding for further research in many cases. Because of this, currently the public has a distrust of the scientific community due to many companies taking advantage of this by tailoring “research” to their needs. However, I believe that some issues such as climate change transcend the fight between scientists and social issues because both public and scientific community support is necessary to make the change.

My experience in the sciences started with my family who are all engineers of some sort. Spurred by their achievements, I became interested in computer science on my own and I now pursue a cs degree at CU. While I can’t point to a specific moment or experience that put me on this path, I can confidently say that the Silicon Valley environment that I was raised in influenced my decision. Being surrounded by successful and intelligent individuals has only solidified my decision to pursue computer science and given me motivation to try harder. I think that Orwell’s essay also points out the large knowledge divide between the scientific community and the public. For the public to even be informed on most new science it has to be dumbed down into easily digestible snippets that are shared on social media. In the modern age most of what we take for granted are a result of scientific developments which leads the public to think that scientists as otherworldly beings. The reality is that scientists are mostly just normal people that aren’t really more informed than the public except in their area of expertise. I agree with Orwell that it isn’t necessary to expand science education because teaching basic sciences wouldn’t close the gap and only would burden people who don’t think like definition two. While science is becoming increasingly popular I think that it is important that our culture and society grow through people in the arts as well as sciences.

Overall, science covers a very large variety of areas in the modern age and is increasingly important in politics and society itself. I think that the gap between scientists and the public should be closed by more in-depth reporting on scientific advancements through the media. While Orwell’s ideas may not apply perfectly, the core concept of defining science itself and how we pursue it is more important than ever.