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Science as a Paradigm

Ever since science has gained a prominent foothold in modern society, it has gained power to dictate truth in such a way that has overpowered previous structures. While it may seem innate that science should be what is most substantially believed, I argue that there should be room for other forms of truth to exist. In this paper I will support religious truths, as well as other forms of truths that exist as an attempt to prevent the monopolization of truth by science. To do this I argue that science itself exists within a paradigm that must be subjected to its own forms of critique.

To begin understanding this idea we must first analyze what is meant through a paradigm. To elaborate on what is meant through a paradigm, I draw from Thomas Kuhn's usage of the term.(Kuhn) A major difference of note to make is that Kuhn does not draw this term or paradigm to be used outside of science itself. Even so, I will be using similar argumentation. Thomas Kuhn uses the term paradigm in relation to how science is performed. To this extent, science exists in two different states; one where there is a stable paradigm termed normal science, and the other where there is not a stable paradigm. During normal science, efforts are made to master whatever paradigm currently exists. For example, a physicist within the 1800's would focus his efforts onto fully understanding Newtonian physics. On the other hand, when there is no stable paradigm, scientists must make decisions on which paradigm they participate in. A clear example of this is the current dichotomy of general relativity and quantum mechanics.

Both of these theories are powerful in their own right, but are not compatible and thus exist within different paradigms. This is because of a fundamental difference in how reality is considered. This being that quantum mechanics deals with properties of particles in terms of probability, which is not compatible with a general relativity approach. During these periods scientists are not given a clear path onto which paradigm is actually the correct one. Eventually, a particular paradigm wins out over all the others and we return to a state of normal science.

Using this understanding of paradigms, we can look outwardly from science and attempt to apply this reasoning to broader society. To do this we must first understand what exactly separates the rest of society from science. Science is focused on a very particular aspect which is commonly but mistakenly referred to as truth. While science may catalog a certain form of truth, it does not accurately describe what truth truly is. To break this down, science can lead to discoveries of scientific truths. Scientific truths are only one form of truths which exist. This is because of how knowledge in particular functions.

I argue that what we know is a product of the lens through which we perceive external sensory information. While this may seem like a bold statement, I will attempt to appeal to intuition. If we actually analyze what we mean when we say that we know something, we see that this knowledge is only relevant because of a particular understanding of what that something is of. For example, if I am to say that I know what Gatorade is, I only know what it is in relevance to other sports drinks. Here, Gatorade is one competing paradigm among many within a broader paradigm. In this situation, Gatorade is within the paradigm of sports drinks, and my knowledge of Gatorade is a truth derived from this greater paradigm. In the same way, sports drinks are a micro paradigm to drinks as a whole.

In this way we are able to see that truth is only relative to what paradigm encompasses it. To the same extent, truths are meaningless to those who do not accept the same paradigm in which the truth is from. This is important for developing the second major point I will be addressing, which deals with the overreach of science in determining truths. There are three key ideas that we must assert before we begin. First, that truths are relative to the paradigms that they exist within which was explained previously in this paper, and second, we can accept multiple paradigms as being true, as long as they do not directly conflict, and third that if paradigms do conflict we must be indifferent as we have no reason to assume one above the other.

To elaborate on the second point, once again consider the Gatorade example from earlier. If we accept the sports drink paradigm, then we are in the game to argue one sports drink over another. Perhaps Gatorade does the best at being a sports drink. Regardless, the truths from sports drinks are irrelevant to the fact that we may also accept the potato chip paradigm. In this way we can see how we can accept both the sport drink and potato chip paradigm, while still maintaining internal consistency. This is in contrast to paradigms which cannot be accepted together. To see this, we can point to the case of creationism vs. evolution. If we are to accept the creationist paradigm, we cannot also accept the evolutionary theory paradigm. This is because they directly conflict with how species originate.

These arguments now give us the correct understanding to properly assess how science is overreaching. In an article by Feyerabend, a prominent contemporary philosopher of science, we can begin to understand how science as a form of mind has been operating within recent society. Within society science is taught not simply as a paradigm which generates specific scientific truths, but rather a mechanism to obtain *the* truth. "Consider the role science now plays in education. Scientific "facts" are taught at a very early age and in the very same manner in which

religious “facts” were taught only a century ago”(Feyerabend, 277). This points to a particular issue which science is not alone guilty of committing. This is the issue of teaching a particular paradigms facts as a truth which overrides all other paradigms. By not teaching these facts we are actually making ourselves less capable of grasping other paradigms as we are building fundamental ideals into individuals before having the ability to question these beliefs.

To be more clear with an example of how this is harmful, consider two related examples; the first with certain scientific facts which were determined to be true at a certain point, and the second without these scientific facts taught as true. Before 1973 within the United States, being homesexual was classified as a mental illness by the American Psychiatric Association. If, during this time we are to teach children this as a truth rather than just a scientific fact then the child would have a disposition which inherently is prejudice towards homosexuals. This would cause the child to place unearned confidence within the scientific paradigm against one's will.

This is in contrast to the alternative approach. This alternative would not teach just the scientific paradigm at the time, but rather introduce multiple paradigms to allow the individual to more fully understand a particular subject. In this way, much similar to Feyerabends' mindset, it is important to teach and supply within the school system an environment of how to learn rather than facts which are to be learned.

I believe that we can apply this same reasoning more broadly. If we relate this idea to all paradigms, we can see how holding scientific truths as the truth not only causes issues with understanding, but hinders progress of paradigm-relevant truths outside of science. To use the case of religion, if we assume certain scientific truths to be the truth then we lose our ability to perceive biblical truths. For example, when Moses parts the red sea he may not be parting the red sea in any sense of a scientific truth but rather in terms of a biblical truth, The aim of the

statement is not meant to be relevant in a scientific mindset instead it speaks to be relevant to those within the particular religious paradigm.

This is where the issues of current science begin to show face. If we are attempting to understand these biblical truths, they will be deserved or even possibly denied because of an ingrained scientific truth of the scientific accuracy of a particular situation. An individual who is raised upon the understanding of scientific truths as the truth will not be able to distinguish between what has been forced as a fundamental truth over what is a basic paradigmatic truth.

If we allow this to happen, then we eventually lose access to these paradigmatic truths as scientific truths slowly capture all relevant subjects under a scientific umbrella. Doing so will eliminate other paradigms, and in the same breadth trap us within one paradigm, the scientific paradigm. This is the greatest fear. Becoming trapped within one paradigm is the worst possible situation since we will no longer be able to advance societally as all truths will be predetermined.

This is clear to be the case if we consider the field of science as a representation of how paradigms compete. Many of the most powerful scientific advancements came in direct opposition to the current understanding of scientific truths. “Wherever we look we see that great scientific advances are due to outside interference which is made to prevail in the face of the most basic and most “rational” methodological rules” (Feyeraband,279). Only in denying a current paradigm can fundamental changes be made. Without doing so we are stuck where we are, with no way to assess any foundational reasoning to allow for a more clear understanding. In some sense, trying to fully understand the paradigm one exists within requires the analysis of where that paradigm is within the realm of related paradigms. This is not to say that science in particular should not be the truth, but rather a particular paradigm should be taken for the truth. Science is simply an egregious offender which is contemporarily relevant.

To combat this, we must focus education in such a way which allows for the individual to not be indoctrinated within a particular paradigm. Rather it is important for individuals to have the proper intellectual tools to see where one paradigm begins and another ends. Doing this will allow for the maximization of individuals who understand the different truths. It will also allow for the maximization of different truths which we as a society have access to.

Work Cited

Feyerabend, Paul. *How to Defend Society against Science*. Stegosaurus Press, 2000.

Kuhn Thomas, Hacking Ian, *The Structure of Scientific Revolutions, 50th Anniversary Edition.* University of Chicago Press: 2012