John Vatalaro

Professor Little

Mont 106N - 01

October 26, 2009

 When people hear the terms faith and science, they usually separate the two automatically. Faith is normally associated with religion, imagination, and seemingly unquantifiable definite things or situations. Science is usually though of as the exact opposite, where everything is set in stone and completely objective. However, as Grinnell describes, faith and science can be related and are often beneficial to each other. In science, faith and passion are important when carrying on an experiment or a research study. In religion, science and reason is used to give credit to the validity of different religious practices or laws and to decipher sacred texts. Religion accepts certain Truths from the past, which will never change in the realm of that religion, while science accepts truths that have the possibility to change with every advancement that is made. Grinnell uses the term *complementarity* to describe the relationship between faith and science. He says that the religious attitude and the scientific attitude are used at the same time in order to get two different perspectives, one from a scientific point of view and one from a religious point of view. By looking at the problem both ways, you are using them separately, together. Science and faith can be interrelated, and the way that Grinnell describes the relationship is perfectly fitting.

 Science involves faith of some degree in many situations that would not be expected. Although rules and guidelines in religion are often divinely inspired, there are some that need to be thought out and reasoned by religious officials. These religious lawmakers, in any religion, have to go through a process that is quite scientific. Grinnell uses the creation of Halakhah, Jewish law, to describe the reasoning involved in religion. This code of laws was developed over an extensive period of time and involved a long and thought out process. “Like any mathematical system, validity depends on logical rules applied correctly to starting assumptions” (Everyday Practice of Science, p. 169). Like a mathematical system, there are starting assumptions about a religion. Logic is then used in order to derive valid rules and doctrines for the religion to use. The difference between the use of reason in science and reason in religion is that in religion there is a “willingness to accept starting assumptions from outside of shared sensory place” (Everyday Practice of Science, p. 170), wherein science, one only makes assumptions based on what they can sense for themselves. This idea, that science can only be derived from what the human body can sense, is very limiting. Although the human power to sense has been augmented by the invention of various technologies, scientific discoveries will always have more restriction than that of religion, which is completely unrestricted. While the capacity for knowledge in the realm of faith is completely unlimited, it is still logical and based in reason. Just as science is used in faith and religion, faith is commonplace in science.

 Science is based on assumptions, or hypotheses, that a scientist thinks of and then bases his experiment or research off of it. Research does not always go as planned, there are often errors in a hypothesis or errors in the experimentation process. Failure can be demoralizing for a researcher who really believes that his hypothesis is correct – this is where faith comes in. Some extremely important and useful discoveries have come after countless disappointments in the lab, if these scientists did not have faith in, and a passion for, their hypotheses then what would have happened? Faith in an experiment can lead to conclusions that no one believed were possible, except for those with that faith. Another aspect of faith in science is the idea that humans trust the natural world and their ability to sense things. Theorists have realized that people trust, or have faith, that the natural world and expect it to follow a rational order. People also trust their senses; they have faith that what they are sensing is actually what something is. In any situation, one has to take a small leap of faith in order to learn something new. Thus, without these small leaps of faith that the everyday person, or the scientist in the lab, makes, science would be uneventful and limited. Grinnell explains it as “science requires faith in the possibility that nature’s patterns and structures can be understood” (Everyday Practice of Science, p. 168). Grinnell also proposes that people also have faith in the fact that when people sense and observe things in our world, their subjective testimony becomes part of the “community’s domain of objective knowledge” (Everyday Practice of Science, p. 168). This means that people have the faith that what they sense in correct, but in theory, this knowledge is still not one hundred percent objective and is always capable of being changed over time.

 Science and religion may be completely different entities, however, they are not completely unassociated. Not only are they often associated; they are often used to compliment each other, to fill in gaps, when needed. 1922 Nobel laureate in physics, Niels Bohr, used the word *complementarity* when describing his findings about wave and particle explanations of light. This term, complementarity, can also be applied to describe the relationship between science and religion. In combination with Bohr’s thoughts, Grinnell describes the relationship between science and religion as a *ying-yang*. Within everyday life experience, one approaches the world with a religious attitude and a scientific attitude; these attitudes come together in a *ying-yang* shape that encompasses the knowledge of the self and the world, separated, but also infused with the other (Everyday Practice of Science, p. 181). In a sense, science and religion are just two different viewpoints of the same thing, the natural world and self. Both science and religion have to exist for the whole to be complete and the two halves stay together because they mix and balance each other out. Grinnell explains it by saying “they exist in dynamic tension – constantly bouncing off each other and inevitably offering different types of answers to the fundamental questions about the self and world” (Everyday Practice of Science, p. 181-182). If science and religion were not in tension, then both practices would be quite uneventful and undeveloped. By realizing that they both have to be synchronized, scientists and religious experts have been able to further perpetuate knowledge in their own realms.

 Bohr also raises the question that maybe there is no single objective answer to a question. People have to understand that the human mind may not be able to fully grasp the vast amount of information that is available in the world. Maybe there are different answers depending on how one looks at a problem. That is why using both science and religion in complementarity to solve problems in the world is the best option. Every question cannot be answered with just scientific knowledge and every question cannot be answered with just religious knowledge, but together, these two entities make up the whole of our knowledge. Thus, if used together, one has the best chance of finding the real answer to the problem at hand. Using them both does not meaning using them exclusively, one must use them both, together, in order to use the relationship of this knowledge to its fullest potential.

This well thought out plan of complementarity seems to be the best way to view the process or system that is human thought. Complementarity also doesn’t avoid the question of whether religion and faith even have a place in a secular world like today’s; he answers the question, and explains how religion and faith are absolutely necessary. Also, he does not push a certain religion in his reasoning or explanation; he simply makes the claim that faith is what is important. This broad approach does not exclude any religions, making it acceptable to the whole population. Overall, the implementation of complementarity in society gives people the knowledge of know how to use their knowledge the most efficient way, regardless of the situation that they are in.

Works Cited

Grinnell, Frederick. *Everyday Practice of Science*. New York, New York: Oxford

University Press, Inc., 2009.