Mitchell R. Garnatz

Fr. Brian John Zuelke, O.P.

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Integration of Science and Christianity

Introduction

Dispute upon the relationship of science and Christianity has existed for almost an entire century, for the two ways of knowing struggle to relate to one another in thought. The developmental history of natural sciences in Western society show that many unanswered questions of the universe brought about a change in thought to the world. Science and Christianity have worked together in ways of harmony, independence, conflict and many more, but one model stands out among the rest. A system in which the two ways of thought can be integrated in purpose for a common goal shares the greatest benefit for knowledge and the well-being of society. Without one another, balance would be non-existent in theological and scientific ideas. As stated by Ian Barbour, "We must always keep in mind the rich diversity of our experience," (Barbour 37). Barbour uses the best possible word to describe applicable knowledge in that it must be *diverse.* Close-mindedness must be avoided by applying one area of thought to another, while overlooking their own differences. Although the differences between the science and Christianity appear as a major problem to their relationship, there is a common ground in which they can be integrated as partners through their mutual interest in understanding the unknowns of universe.

Natural Philosophy in Medieval Western Europe

During the medieval Christian period natural philosophy was the other way of knowing that clashed with the ideas of Christianity. Many Greek and other non-Christian philosophers challenged the beliefs of Christianity through logic. It was natural philosophy's drive that paved the way for science to be created. Aristotle, a Greek man of significance to history and understanding the natural world, was extremely influential in the development of Western European thought. His beliefs were not centered in any type of religion but were focused solely on the natural world. These written natural philosophies were used throughout the entire western world and eventually became controversial to the teachings of the Christian church. Christian leaders feared that the natural philosophies of Aristotle and others would weaken the ultimate power they were in control of, so some tried to put limits on where Aristotelian thought could be used and accepted. Of the topics that Aristotle took into consideration in his philosophical works, Christians found that his view on God's omnipotence and the world being uncaused to be most unsettling. These were topics that were never meant to be in question in the minds of Christians yet questioning became the theme of the medieval and upcoming eras.

Natural philosophical thought and Christianity remained separate up until the moment in which Greek and Arabic texts started to be translated into Latin. William of Moerbeke was one of the most famous for translating many texts and the famous works of Aristotle. As stated by Edward Grant, "With Moerbeke's monumental contributions, all of Aristotle's natural philosophy was available by the last quarter of the thirteenth century in translations from Greek and Arabic," (Grant 167). The contributions of Moerbeke's translations and others provided a platform for new analysis in philosophy by Christians.

Next came the introduction of Aristotelian teachings into medieval Christian universities in Western Europe. An event of integration this was, while at the same time being unsettling for some Christians and beneficial to others. In the major western universities of Oxford, Paris, and Bologna foreigners from many different backgrounds traveled to receive a high-level education. Despite the controversies of Aristotelian thought with the beliefs of Western Christianity, the works of Aristotle remained to be taught for the majority of both twelfth and thirteenth centuries. This was an era in which knowledge grew exponentially due to the integration of philosophy and theology. However, conflict between the two areas of thought arose to great heights at the University of Paris. Bishop Tempier of Paris issued the Condemnations of 1277 which denounced the teachings of Aristotle by targeting errors within them that went against Christian belief. This event was not to be taken lightly because it meant multiple things for the Western world. It was now seen publicly that natural philosophy may be in a totally different spectrum than any type of Christian teaching. The strong path of integration that was in place was diminished by this event and struggled to regain itself because of the strong push for separation in some areas of Western Europe.

Philosophers were made aware that their power in thought was fragile to that of the leaders of Christianity. This would give way to the development of the sciences that are known in the current day. A drive to prove truth without question was the goal of early scientists. Previously, philosophers and theologians only created ideas that could not be proven true through research. To gain recognition, new research would be performed with the desire to be tested and proven true by others, creating evidence that the Christian church could not look past.

Natural History

A topic with less hostility compared to the works of science or philosophy when compared to Christianity as a way of knowing, natural history enhances of all other ways of knowing. As a fully observational based method of gaining knowledge, natural history becomes another interconnection between science and religion. The divine and further explanations of the universe are left out in discussion, and only what is observed can be marked down as true. Christianity was at the source of early development for early natural history, and this led to symbolism being apart of nature and belief. Specifically, Reeds and Kinukawa state, "The names of animals, their features, and their behavior provided a springboard for moralizing," (Reeds 577). Connecting directly to the model in which science and Christianity should be integrated with one another, Reed and Kinukawa introduce the idea that morals are at the forefront of Christian thought. Natural history carries these roots that are so crucial to the ethicalness of science which implies a great commonality between the two.

Early Christians who practiced natural history also created much symbolism for animals' other things that lie amongst nature. Albertus Magnus was highly recognized for his works in natural history in which he practiced symbolizing nature and incorporating Aristotle's works. The conclusion can be made from the practice of Christian symbolism is the immense importance of human morals in nature. Natural history then puts forth a necessary cooperation between science and Christianity, for science without morals is unjust as is theology without reason.

Emergence of Early Sciences and Cosmology

Within the late fifteenth and seventeenth centuries, science emerged into the spotlight. Early scientists introduced a much more practical way to gain knowledge than reliance upon

solely scripture and the word of superior authority. The scientific method was introduced to form empirical works of data that could prove and disprove the nature of things in the natural world. This change in method was due to the discrepancies between theologians and scientists on areas of research, so observational and statistical data became the means of scientists gaining credibility in their work. Although science appeared to be separating itself from the ideologies of Christianity, many of these early leading scientists were of Christian faith. Due to many of the leaders of the scientific wave being of Christian faith, it is just to conclude that Christianity played some kind a role in the development of natural sciences in Western Europe.

Many of the early key figures that practiced spiritually and researched at the same time focused their studies on cosmology. Three of these scientists were Nicolaus Copernicus, Claudius Ptolemy, and Tycho Brahe. They fit into the same category of cosmology for each of their major contributions came from developing models of the solar system. One of their three models was found to be correct as later research was conducted and this was the heliocentric model created by Copernicus. This model took Christians by surprise for two major reasons; Within Christian faith Earth was at the center of the universe up until this point and secondly, Copernicus created this model despite being of Catholic faith. Copernicus' model was not proved true until many years after his death, but his findings display that science and Christianity can benefit from each other. His belief that the physical truths of the world are the work of an all-powerful creator is what drove him in success. Without motive, science strays behind its full potential in success.

Science Ages

Aside from early cosmology, science arose, and the spectrum became enormous in diversity. With the growing of the spectrum, many scientists drifted from their old beliefs in

faith, yet some held science and religion strongly. This was accomplished in that faith/Christianity can be a great benefit to one in personal well-being. Science is not a religion, which creates a personal desire for one's self-purpose. As Elaine Howard Ecklund states upon the topic of scientists and their personal faith, "They often invited their faith traditions to implicitly influence how they thought about the implications of their science. But they never saw religion as influencing how they applied their scientific methods," (Ecklund 11). Benefit is received through accompaniment but not intervenient. As shown by Ecklund, much can become accomplished through and integration of both ways of knowing, for science cannot stand alone in society.

Evolutionary Theory

One of the most detrimental works of science for Christian theology was Charles Darwin's theory of evolution that came in the twentieth century. This was a work of scientific theory that claimed humans and creatures have evolved from pre-existing beings. In other words, there was no finite beginning to humans because it has developed slowly throughout the course of time. Evolutionary theory was devastating to Christian faith, for the story of Genesis within the Bible had lost much of its literal credibility if evolution was to be true. Christians were now forced to reconsider many of their ideologies and scripture from a less literal standpoint. Science was at the forefront in the twentieth century largely due to the help of Darwinism, yet evolutionary theory could be interpreted in more ways than it seemed in the beginning.

Not all Christians could accept Darwinism, and therefore sought to rekindle the relationship between science and Christianity that was growing apart. Within the reading presented by Harrison on neo-harmonists, Physician Francis Collins makes a strong argument for integration of evolutionary theory and Christianity. As a man once atheist later converted to

Christianity, his idea that God works through evolution is very interesting. Collin's driving argument is known as "BioLogos," or in other words theistic evolution. Harrison states, "The idea that "God chose the elegant mechanism of evolution to create microbes, plants, and animals of all sorts," (Harrison 251). If God is to be the creator that Christians believe, Collin's statement would hold complete truth, for an all-powerful creator is that answer to all cause in nature. Belief that science is the explanation of the work of God makes for a strong argument against Darwin's theory, for this idea presented by Collins is unable to be proven false. However, evolutionary may become accepted worldwide in the future, but it will struggle to reason past the divine beliefs of Christian faith.

Integration

History's aging may have gradually increased the divide between science and Christianity, but the two ways of knowing receive benefit from one another's methodology and must be integrated for further understanding of the natural world. In thought of gaining knowledge, decreasing tunnel vision, and personal gratification, science and religion can not only coexist, but prosper from each other. Just as Nicolaus Copernicus and Isaac Newton were able to let their faith benefit them in research, continuation should be applied in society today. An example in which displays this perfectly is education. If one student were to attend an entirely scientific based curriculum and receive no instruction in the religions of the world, their views of experimentation would be far less ethically safe compared to a student who is educated in both science and Christianity. It is this situation that seems to be a clear indicator that an integrated system would serve best for the potential of society and future research.

Continuing further on the topic of ethics and values, a model of integration is best for the betterment of society in that faith is the balance science needs to function in its most optimal

state. Experimentation is meant to be done for a purpose, yet if one does not have just ethics or values in life, to what reason do they have to research. This does not mean that Christianity would take part in the methodological process of experimentation, but it can be used for personal benefit and when reasoning just ethics. In this scenario it may be in question that science could be influenced with bias from personal beliefs, but when experimentation is in question faith must remain separate. The spiritual must help the physical in process, but the spiritual must not become the physical, for this would create skewness from real truths.

In contrast to the belief that science and Christianity work optimally when integrated, there is the belief that the two should not work closely together because theology does not need science. True it might be that religion alone can satisfy the personal needs of someone, but the world would fail to advance in knowledge if faith was the only important way of knowing. Christians must recognize the benefit from the natural sciences for the betterment of the world. In the era of medieval Christianity, Thomas Aquinas and Descartes were keen in refuting Aristotle's philosophies on the creation of the natural world, but the reasoning always came without factual evidence. Concrete data is the wave of the current world, and Christianity must make the adaption to see that it works best from hand in hand benefit of scientific knowledge.

Conclusion

Science and Christianity fit best into the model in which the two ways of knowing are integrated together to optimize society's potential understanding of the natural world. Ethics, values, and personal need all are part of the optimization of scientific research, and these are influenced positively from Christianity. As for knowledge, integration creates a situation in which the pool of knowledge incorporated from both ways of knowing is the greatest. People of both sides of the spectrum may not come to agreement on the knowledge, but it is information

gained in all. Ultimately, the unknowns of the world are too monumental in size for either science or Christianity to handle alone. Integration amongst these two ways of thought will sprout advancements in knowledge in the best way possible to satisfy the need of the world.

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