Eradicating the Phantom Disparities Between Evolution and Creation

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We, as humans, seem to perpetually covet answers to questions that we don't quite understand. As our social structures, technology, and natural understandings have progressed, we are still left requiring a firm explanation to the origins of our ancestry. The innate intricacies of this query have historically veiled our criticisms, and the development of scientific theories aimed to clear the murky water has been met with institutionalized backlash from religions that claim to have had the answer for centuries. This cyclic climate has been long-considered binary: an individual will either side with science and Darwinian evolution, or with The Book of Genesis, where the origins of humanity are outlined in the story of Adam and Eve. However, there are those who have enabled themselves to consider both sides of this complex argument. A great example of this coming to fruition is Adam and the Genome, co-authored by geneticist Dennis R. Venema and New Testament scholar Scot McKnight, which analyzes the contention between contemporary evolutionary science and biblical interpretations of the origins of the human race. The authors are able to ascertain a common ground between sides through the discussion of the historical origins of scripture compounded with the scientific restrictions surrounding evolutionary theory. While the route of consideration can be left somewhat subjective, I assert that the religious story of creation can be in productive dialogue with evolutionary biology.

Adam and the Genome is partitioned into two sections based on the corresponding two authors involved in its creation. The first part was written by Venema; it delves into the world of evolutionary science, and contains responses

to its religious backlash. The second is written by McKnight where he postulates solutions for theologians trying to make sense of the disparity between scripture and evolution. In Venema's half, he explains the reasoning behind the scientific method, and underscores the importance of uncertainty in this process. To elaborate, a scientific theory such as evolution is a conglomeration of thoughtful analyses - just because it exists does not preclude it from being disproved. In fact, Venema rightfully claims that evolution's very existence as a theory is indicative that it has yet to be disproven. This nature of the scientific process makes it seem "... wishy-washy—and leads many Christians to think that they're better off sticking to the plain truth of the Bible" (Venema and McKnight 5). A large contention of evolution theory lies in its assertion that humans did not come directly from a creator, but that we came from lower life forms under environmental pressure. An assumption of this contention is that the evolution of a species is a continuous, not incremental, process. A monkey did not give birth to a human, and therefore there must be evidence of species that displayed intermediary genotypic and phenotypic characteristics.

A fun comparison that Venema makes to this phenomena is the evolution of a language, and he specifically analyzes the differences between Anglo-Saxon and Modern English. He referenced John 14:6, showing a translation in Anglo-Saxon from 990 AD, as well as the commonly used English version from today. Venema stresses how "Anglo Saxon incrementally became Modern English over generations, within a continuous population of speakers" (Venema and McKnight 20). Understanding that evolution is a population phenomena is critical in readjusting the notion that every human being came from Adam and Eve. In fact, Venema points out that through the statistical study of gene allele frequencies, and taking into account the current population size, scientific literature projects that there has never been fewer than 10,000 individuals in the human population.

In the early 2000s, a comprehensive sequencing of the human genome was published. Since then, studies comparing the human genome and other species have become widespread. From

these studies, it has been found that we share common ancestry with all life and that all genetic material has traveled phylogenetically from the first organisms (which were single celled and had little to no cellular machinery). The idea of natural selection must inherently be considered when discussing the genetic evolution of a species; there is the notion that nature does not create genetic diversity but simply acts upon it.

For example, consider a trait such as size to be normally distributed across a population. Individuals with a larger stature may use their size to be successful in hunting prey, while the small individuals may use theirs to hide from predators. This leaves the medium-sized individuals–too small to hunt and too big to hide–to die out naturally over time. The normal distribution will thus split down the middle, and eventually this species will evolve into two separate species; a larger one that exclusively hunts and a smaller one that exclusively hides, in this case. Venema's language example fits well into the context of this thought experiment; a population of speakers can be physically separated over a period of time time, and once they are brought back together, they may not recognize the phonetics of the other group's evolved language.

Of course, size is a pleiotropic trait that is derived from many genetic and environmental factors, but this example can be extended to the molecular scale, with genes and, more specifically, with genetic mutations. There are many types of mutations, ranging from a single base-pair substitution to the deletion of the majority of a genetic locus. Another type is a genetic duplication, where a gene is randomly duplicated in a cell division error. If there are two copies of the same gene, over time, one may be irreversibly altered;this can result in a gene of new function. Over a few billion years, the original genetic material has gotten more complex through this cyclic process of duplication and mutation, and allowed for the formation of the complex quilt of life that we interact with today. This accepted phenomena for how genetic diversity arose discredits any notion that life forms were spontaneously "created" by God. Therefore, genetic studies, along with many more that are not explicitly discussed in this writing, have allowed us

to construct a set of genomic guidelines that span the era of life on Earth. However, they have also severely challenged our interpretations of The Book of Genesis.

Throughout the transition to the latter half of the book, I expected a formal theological rebuttal from Scot McKnight. Instead, I found that McKnight believes the evidence for evolution, and, in fact, offers ways to consider theology with the benefit of modern scientific discovery. It was explained that the story of Adam and Eve not only generates a convenient lore for the creation of mankind, but also subsidizes the gospel of salvation. McKnight contends for the necessity of The Book of Genesis as "...without [their] sinning and passing on that sin nature to all human beings, not all human beings would be in need of salvation" (Venema and McKnight 189). In this statement, McKnight is referencing the Christian doctrine of Original Sin which holds that humans, through the fact of birth, are held responsible for Adam and Eve's sin of consuming the forbidden fruit. It is accepted that this sin opened death's doors to humanity, and is why we are in need of saving. If the Book of Genesis is to be completely discredited, this would prove troublesome for the foundations of Christianity as whole. Thus, there must be some way in which scientific thought and the Christian doctrine can coexist in a mutually exclusive, yet non-inhibitory, fashion.

In a vacuum, a literal interpretation of Genesis is able to go unquestioned by believers in the faith. However, scientific research can cause believers to either desperately cling to the faith which they were endowed with, or flee in disbelief. Bradley C. Hanson's Introduction to Christian Theology can give insight into this phenomena. This text is designed to introduce the foundations of the Christian religion. Bradley componetizes faith into three pillars: belief, commitment, and trust; he cites that belief as an aspect of faith is "commonly communicated through story" (Hanson 2). Since he also defines belief as holding something to be true, there is a distinct idea that sacred texts must be "true" or historical, and that believing in them is what causes a religion to be effective and widespread. Bradley's opinion may give key structure to the bipolar nature of science's footprint on faith, and explain why many may consider

believing in one over the other. Venema makes a connection to this train of thought when he explains that "the 'science' [they see] in the newspaper day to day is always changing and constantly contradicting itself" (Venema and McKnight 7). As science is a conglomeration of analyses drawn from evidence-based research, the assumptions that are utilized to obtain data may be subsequently disproven, and this may cause the conclusions drawn from research to seem redundant. Those who are ill-versed in scientific thought and/or literature may take these conclusions as falsalities, and thus, a solid faith in science is hard to stabilize.

McKnight had a very interesting response to truth-based faith, and it lies in reworking our preconceived notions of The Bible, and what we regard as historical. To be more exact, the Adam of Judaism, McKnight explains, is considered more of a literary construct exploited for theological purposes. The Apostle Paul references Adam in his writings, and in the second half of Adam and the Genome, McKnight analyzes both the assumptions Paul used when he discussed Genesis 1-3, as well as the conclusions he drew from the biblical story. The idea McKnight makes tangible is that it matters not if Adam truly lived or was historical; it only matters that Adam is used as an archetype to display how humans were made "in God's image," and shows how those who fail to achieve what God has commanded are expelled for their sins. When we read scripture today, we do not try to twist it to conform to our personal belief; instead, we allow it to grow and shape our own beliefs. In this line of thought, McKnight's general opinion is that we may be reading and analyzing The Bible incorrectly, and projecting modern problems and ideas onto an ancient text. This would be especially confounding if the writers of these sections of scripture did not even intend their writings to be "historical." When Paul spoke of Adam, he did not have to consider the confounding truths that have been presented through science; advanced scientific developments are relatively recent in history when considering the evolution of religion.

It seems as though we expect institutionalized religion to have the answers to all big questions, and the same can be said about scientists regarding the natural world. These two groups are not all that

different in this sense. Nonetheless, the times have changed a great deal since sacred texts came into existence, and it is our expectations that cause the large contention between science and scripture. We expect rigid answers to amorphous questions, and become distracted in minute detail when we fail to even fully grasp the overarching themes of our existence. Religious traditions are deeply rooted in scripture, and if scripture is deeply rooted in belief, I understand why faithful Christians are confused when science seemingly removes the ground from under it. In this case, I believe that if the parameters of belief are tweaked, there can be harmony between preexisting scripture and continuously evolving scientific thought.

References

Venema, Dennis R., and Scot McKnight. *Adam and the Genome: Reading Scripture after Genetic Science.* Brazos Press, 2017.

Hanson, Bradley C. *Introduction to Christian Theology.* Fortress Press, 1997.