

## Question 4: Is faith compatible with Evolution?

### The background to the issue:

#### **Faith and Reason:**

Throughout history these two concepts have had moments of great triumph and moments of great conflict. I sense that our current culture sees them in conflict. From the times of the Greeks and Romans until the Age of Enlightenment in the 17<sup>th</sup> century, faith and reason were seen to mutually benefit one another. What the mind understood through reason, influenced and expanded the realm of faith. Those premises understood through faith were broadened and given new language through reason. During the Age of Enlightenment, depending on the historian the Enlightenment can begin as early as the 14<sup>th</sup> century and as late as the 18<sup>th</sup> century, faith and reason parted ways. Faith was seen by the Enlightenment thinkers as contradictory to those ideas that can be understood through reason. Therefore faith had no place in the realm of intellectuals and academics. This divide continues into the present era.

The divide caused by the intellectuals of the 17<sup>th</sup> through 20<sup>th</sup> century was never expressed by the Catholic Church. At times the ideas of the Enlightenment thinkers contrasted with those of the religious thinkers causing deep strife. This increasing strife made the religious thinkers leery of the Enlightenment thinkers and vice versa. Nevertheless, the Church has made it clear that reason, which is rooted in God's intellectual capacity, cannot contradict the conclusions reached through good reason. Saint Pope John Paul II (JP II) attempted to reconcile this divide in his encyclical titled *Fides et Ratio* (Faith and Reason). JP II was a huge proponent of the sciences and advanced the pursuit of the sciences within the Church. Since God created the world through his reason, which cannot error nor have faults, therefore anything that conforms to right reason must also be an expression of God.

#### **The Church and the Sciences:**

I started this question with the above exploration of the debate between faith and reason to provide the background for the discussion of science. A scientist's main aim is to understand the world that is intelligible. Through scientific inquiry and well-thought experimentation, a scientist can begin to understand the reason/logic that underlies the universe. Yet, the way that society sees science today is vastly different than the true aims and limitations of science. At a fundamental level, a scientific experiment can only suggest that the findings are in accord with reality. For example: If I created an experiment to examine the effects of caffeine on rats. At the conclusion of the experiment I can only conclude with a suggestion: rats who intake caffeine are more likely to do whatever the conclusion suggests. Another experiment may find something different. Each experiment can only suggest that a given conclusion is not random but conforms to reality.

#### **Theory vs. Law**

One of the most common problems in interpreting scientific findings is in understanding what are the implications of a given experiment. Any experiment can conclude that under the conditions and parameters of that experiment the research would suggest that the same results

would happen a certain percentage of the time. If the value is less than .05 (5%), it is considered a valid conclusion. Once enough experiments have made the same conclusions, the conclusion is elevated to a theory. A theory suggests that this phenomenon is common enough that, given the same parameters, this conclusion will almost always be reached. If we add to that conclusion mathematical principles that cause the conclusion to be reached every time, then the theory becomes a Law. Law reflects reality most fully. The only law in biology is the Law of Independent Assortment. Chemistry has several laws like the Law of Thermodynamics. Physics has many laws: The Law of Gravity, The Law of the Conservation of Energy, The Laws of Motion.

### **The Theory of Evolution:**

No scientific theory has received more attention than the Theory of Evolution. My sense is that most of the confusion surrounding the Theory of Evolution comes from a misunderstanding of its basic premises and conclusions.

### **Macro vs. Micro evolution:**

Microevolution states that things change over time. The best example of this idea comes from Charles Darwin. Darwin observed the finches found on the Galapagos island and noticed something about their beaks. Some finches had beaks that could only eat seeds while other has beaks that could break open seeds. He concluded that, over time, the beak size of the difference finches underwent changes that differentiated the species into those with small seed eating beaks and those with large nut cracking beaks. These small modifications are found in many places and can be easily studied, analyzed, and predicted. Due to the ease at predicting the changes found in animals and the plethora of information, this theory may be elevated to a law very soon.

Macroevolution is the form of evolution with which we are most familiar. If you looked at a picture of man evolving from apes or the ancestors of the common bird, these are examples of macroevolution. Macroevolution takes the theory present in the Theory of Evolution and applies it on a grand scale, namely the origins of all things. These conclusions are almost exclusively based on archeological finds and not on repeated and measurable experiments. Therefore, scientists trying to make well-formed family trees and relationships among animals species are bound by the archeological evidence they can find. Thus every conclusion made in the realm of macroevolution can be traced back to an archeological find and evaluation attempting to piece together the puzzle of life.

### **The Conflict:**

The conflict between faith and evolution normally centers on one issue: did humans evolve from apes? Those who are against the scientists' theory of evolution claim that humans did not evolve from apes. Those who adhere to the scientific theory of evolution state that humans did evolve from apes. This dichotomy over simplifies the situation.

The Scientific perspective:

From a strictly scientific perspective the theory of evolution is the only theory that accurately explains the phenomenon of the similarities between animals and the progression of changes that are contained in the fossil record. A scientist who is true to the principles of science cannot venture a plausible theory that is not based on the empirical evidence. Theories that propose outside forces or “unseen forces” that cannot be demonstrated by scientific analysis are plausible in the realm of science. A good scientific theory should be repeatable and justified by repeated experiments. Unfortunately, macroevolution does not fit this criterion. Macroevolution cannot be repeated or tested since the premise of it is that an organism changed over the course of millions of years into new species. No one could live long enough to watch and observe the process. Neither are we able to go back in time and watch the entire process unfold. Therefore, scientists are forced to accept the sequence of changes that come from a broken fossil record and make conclusions based on those sources of evidence.

The non-scientific perspective:

I chose to call it the “non-scientific perspective” because the opposing side is not always from a religious perspective. The religious side is trying to maintain a few key elements of the faith tradition, especially Christianity, as found in their sources of revelation, namely the Bible: God created human beings. A person who holds strongly to the statement that “God created human beings” would contend with the conclusions of science which look like humans came as an accident or outside of God’s creative power. A more nuanced way of approaching the same issues would see God as the author of creation and therefore the one who orchestrated the event of evolution that led to humans, i.e. intelligent design. The other main issue that the non-scientific perspective wrestles with is the idea of reason. Humans have a more developed ability for cognitive reasoning than that found in other animals. Reason is not a product of evolution. An animal, although some do increase the size of their cranial cavities implying a larger brain, has yet to reach the cognitive reasoning ability of a human. So, the underlying question is, where did reason come from?

The Catholic Church and evolution:

Within the Church two principle documents summarize the Catholic Church’s perspective on the scientific theory of evolution: *Fides et Ratio* by St. Pope John Paul II, and *Humani Generis* by Pope Pius XII. St. Pope John Paul II shocked the world in his encyclical titled *Fides et Ratio* not by the novelty of it or the core teaching but by its importance in the modern world. The core message of this encyclical is that faith and reason are not opposed ideas but mutually feed one another. Since God is all-knowing and the author of reason – that through his reason he created the entire cosmos and set order to all, then those findings that conform to reason must be from God. Likewise, the elements of the faith should also conform to reason. Therefore, scientific theories that are reasonable must have as their author God, who is author of reason. *Humani Generis* contains a much more hardline stance on the issue of Evolution. As Pope Pius XII watched the scientific revolution unfold, he wrote this encyclical in response to the trend forming regarding evolution.

“5. If anyone examines the state of affairs outside the Christian fold, he will easily discover the principle trends that not a few learned men are following. Some imprudently and indiscreetly hold that evolution, which has not been fully proved even in the domain of natural sciences, explains the origin of all things, and audaciously support the monistic and pantheistic opinion that the world is in continual evolution. Communists gladly subscribe to this opinion so that, when the souls of men have been deprived of every idea of a personal God, they may the more efficaciously defend and propagate their dialectical materialism.

6. Such fictitious tenets of evolution which repudiate all that is absolute, firm and immutable, have paved the way for the new erroneous philosophy which, rivaling idealism, immanentism and pragmatism, has assumed the name of existentialism, since it concerns itself only with existence of individual things and neglects all consideration of their immutable essences.”

Pope Pius XII affirmed two primary elements of Christianity that were coming under attack by the scientific movement: God created the world and we come from two parents.

Theories that try to reconcile or refute evolution and claim humans did not evolve from apes:

Alien life forms: A asteroid crashed into our planet carrying the building block of DNA. From these building blocks all life forms came to inhabit our planet.

Creation of DNA: DNA in and of itself is not capable of maintaining or creating life. DNA is only able to store the information used to create proteins, and DNA cannot replicate or transcribe proteins without the use of proteins. Therefore DNA needs to be the primary starting block for all life and life cannot exist without it.

Free-will: Free-will is a human concept and a human ability. Animals are bound by their need to survive and therefore make decisions based on their need to survive. The higher thinking in humans allows us to make choices that have moral weight. Since free-will is not found in animals, it could not arise through the process of evolution instead came from something else.

Transfigural soul: Since humans are the only animals with a rational soul and the soul cannot be transferred by evolution, then humans must have come from somewhere else.

Holes in the fossil records: the many holes in the fossil records do not clearly indicate that humans evolved from apes. Since we continually find new evidence that changes our prior concepts of the evolutionary tree, we could find evidence that suggests that humans came from a different branch than those of the apes.