Should Evolution, Natural Selection, and Intelligent Design be Given Equal Treatment?
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With so many different theories regarding the development of life on earth, how does one determine which ones hold more merit and educators should focus on? In order to sort this out, let us first begin with the word theory itself. In everyday speech, a theory is likened to an opinion, assumption, speculation, or hypothesis. It gives a plausible answer to a question that many times can neither be proven nor disproved. Scientifically speaking, however, a theory is considered a fact supported by something known or observed (Moran 1993). Otherwise stated, a theory is a continually tested and retested scientific hypothesis that effectively determines how the natural world functions (Berra 2001). To be considered scientific, a theory must follow this description. A closer examination of the definitions and explanations of the theories of evolution, natural selection, and intelligent design will establish what types of theories they are and explain why they should not be given equal treatment in science classes.

On the theory of evolution, many non-scientists think of it from a philosophical standpoint as opposed to a scientific one. Evolution has become widely accepted as the rival of Creationism in the debate over how the world began, rather than acknowledged for the ongoing genetic process that it is. In his essay titled “What is Evolution?”, Laurence Moran (1993) points out the discrepancies in the definition of evolution among non-scientific and even scientific dictionaries. He sums up a respected scientific definition of biological evolution as “a process that results in heritable changes in a population spread over many generations.” Evolution is not an explanation for how any one species began life on this planet or how all species slowly developed over time from one single-celled organism. Those are completely separate theories. Evolution is simply the theory that the world, and the organisms that inhabit it, are steadily changing and transforming (Mayr 1991). Evolution is considered a scientific theory in much the same way gravity is. You cannot see gravity directly, but you know it exists through experimentation and observation. The proof for evolution exists in much the same way. Smaller theories, called mechanisms, are scientifically tested and proved to support the greater theory of evolution. One of these mechanisms is the theory of natural selection.

Natural Selection is a theory of evolution proposed by scientist Charles Darwin in 1859 that is commonly known as “survival of the fittest” (Moran 1993). It states that evolutionary change takes place as generations pass genetic variations from one to the next. As they do, the genetic variations that do not thrive in their conditions die away, while the ones that flourish keep strengthening and transitioning to each generation (Hanes n.d.). Moran (1993) discusses natural selection in another essay titled “The Modern Synthesis and Evolution”. He states that natural selection is not a stand-alone theory, but a mechanism of
evolution. Neither is it the only, or even the best, theory to describe how evolution occurs. Although natural selection is a good example of how evolution can clearly be seen, there are many other theories that should be considered when discussing the mechanisms of evolution. Theories such as sexual selection, pangenesis, common descent, and gradualism are all examples of other mechanisms. Natural selection not only supports the idea of evolution, it is viewed as a scientific theory because it can be genetically investigated and results physically observed.

Although some view it as another possible mechanism of evolution, the theory of intelligent design is mostly regarded as the leading opposition to evolutionary theory and upholds the idea that a being or supernatural force created and is in control of the development of species and the universe. Supporters insist that higher life forms could not have been created randomly or by chance because they are so complex and contingent on a specific design (Dembski 2002). While this is certainly a plausible theory, it can only be debated philosophically and cannot be considered a scientific theory since it is unable to be observed or the existence of such a creator be proven through experimentation.

Of course, since none of the three theories discussed can be disproved, it is important that each be presented as philosophically debatable viewpoints, but as for what should be given curricular priority in the science class, it is clearly those theories that have basis in scientific fact. Evolution, through its own right and the mechanisms that support it, can clearly be observed and tested through scientific method. It is not to say that research should not continue in either field, but the definition of a scientific theory dictates that only the observable and known can have precedence in a scientific environment.

References:


