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Testable Explanations

The *National Academy of Sciences* (NAS) in its recent book *Science, Evolution, and Creationism*, 2008, defines science as: "The use of evidence to construct testable explanations and predictions of natural phenomena, as well as the knowledge generated through this process." A key word in this definition is the adjective used to modify "explanations"—testable. The NAS in its earlier pamphlet *Science and Creationism: A View from the National Academy of Sciences, 2nd Edition, 1999*, used a different adjective to modify "explanations"—natural; they stated: "But it is the job of science to provide plausible natural explanations for natural phenomena." The new wording is a far more accurate description of science; in addition, in the evolution debate it supports both the naturalist and the supernaturalist views of science.

For the naturalist, the phrase "natural explanations" actually undermines his very philosophy—the idea that there is no supernatural. Naturalism is a way of thinking that depends upon experience, reason and science for its understanding of reality. Therefore, Naturalism is a conclusion made from science and not an assumption of science; the naturalist must make his case for Naturalism from his understanding of science. If science can only use natural explanations, the naturalist would be arguing in a circle and could never prove his claim.

For the supernaturalist, the phrase "natural explanations" does not just undermine his view of science but actually excludes it by definition. If science is limited to only natural explanations but some natural phenomena are actually the result of supernatural causes then science would never be able to discover that truth—not a very good position for science. Defining science to allow for this possibility is just common sense.

Science must limit itself to testable explanations not natural explanations. Then the supernaturalist will be just as free as the naturalist to make testable explanations of natural phenomena. The view with the best explanation of the empirical evidence should prevail.

The NAS in *Science, Evolution, and Creationism*, 2008, also clarifies another important point of dispute in the debate between the naturalist and the supernaturalist—the limits of science in discovering truth. They state that: "Science is not the only way of knowing and understanding. *But science is a way of knowing that differs from other ways in its dependence on empirical evidence and testable explanations.*" It is important to note that the Academy admits that science has limitations in the domain of knowledge. To argue otherwise that "science is the only way of knowing" is self-contradicting; it is to argue for a truth for which there is no testable explanation. No experiment or empirical evidence can prove "science is the only way of knowing".

Texas students need to understand what science is and what its limitations are. To include the Academy's definition of science and its admission of science's limitations in Texas's curriculum standards—the TEKS—would be good policy.

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