THE EPISTEME IS THE THEORY†

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The real purpose of evolution theory is not the scientific one of explaining the origin of life; for it is impossible to do that, utilizing only natural laws and phenomena. Rather, the theory is dedicated to a philosophical goal: to "ungod the universe". The tool by which that is to be accomplished is what is known as the positive science episteme.

A delusion exists, widespread and deeply rooted; it is the grand delusion regarding the creation-evolution controversy. It is the popular false belief that evolution theory is the result of pure, unadulterated, objective science. Nothing could be further from the truth. Alternative points of view about origins such as creation, theistic evolution and even monstrous births were widely discussed among Charles Darwin's contemporaries. Today the only point of view given serious consideration in textbooks and most periodicals is atheistic evolution, perpetuating the grand delusion. Atheistic evolution became orthodox, not because it was proved and the other disproved, but because of two opposing epistemes that exist concerning scientific methodology.

An episteme is the "historical *a priori* that in a given period delimits in the totality of experience a field of knowledge . . . " In other words, a point of view for a particular period of time. An episteme is similar to, but broader than, Thomas S. Kuhn's paradigm which is "a synthesis of sufficient scientific merit to draw practitioners away from rival theories and which functions as a source of future methods, questions, and problems."[1] The two epistemes in question are the creation science episteme and the positive science episteme.

The creation science episteme emphasizes mind, purpose and design in nature, while the positive science episteme holds that scientific knowledge is" . . . the only valid form of knowledge and is limited to the laws of nature and to processes involving 'secondary' or natural causes exclusively."[2] The positive science episteme "avowedly and purposely ungods the universe."[3] Gillespie describes the rivalry between the two sciences as follows:

> Those who argue that there was no real warfare between science and religion in the ninteenth century ignore the presence of these two sciences. The old science was theologically grounded; the new was positive. The old had reached the limits of its development. The new was asking questions that the old could neither frame nor answer. The new had to break with theology, or render it a neutral factor in its understanding of the cosmos, in order to construct a science that could answer questions about nature in methodologically uniform terms. Uniformity of law, of operation, of method were its watchwords. The old science invoked divine will as an explanation of the unknown; the new postulated yet-to-be-discovered laws. The one inhibited growth because such mysteries were unlikely ever to be clarified; the other held open the hope that they would be.[4]

Unfortunately for the positive science proponents, there are simply too many creationist scientists in the history of science who have made many discoveries and contributions to scientific knowledge to support the assertions in the above paragraph.

By the way, this article began as a review for the *Quarterly* of the book, *Charles Darwin and the Problem of Creation* by Neal C. Gillespie;[1] but because the book dealt with subject matter that I was in the process of researching, it turned out to be an article incorporating a review. Although Gillespie does not point this out, his book confirms what I had previously suspected, that the positive science episteme is the theory of evolution. The positive science episteme is simply a polite way of describing a prejudice against any belief in the supernatural. In other words, evolution theory does not exist to explain the origin of life, rather it exists to make prejudice respectable and acceptable.

Positivists would like to have us believe that the positive science episteme benefits science. The purpose of science, within its limitations, is to investigate and make truth statements about our environment. As to the origin of life, unless someone observes a plant or animal having evolved into another kind of plant or animal, evolution must remain a theory. But, by insisting upon excluding special creation or any other alternatives, the positive science evolutionists have destroyed the objectivity and the very purpose of science itself as it relates to the question of the origin of life. Positive science is really a biased policy of exclusion that limits the investigative powers of science and the education curriculum to a belief in evolution.

If, in reality, the episteme is the theory, then that would explain the unscientific techniques that are employed to support evolution theory, such as the extravagant use of analogies, which really have little scientific value, the insistence upon having natural selection conceived metaphorically rather than literally —metaphors, of course, are outside the realm of science —extrapolating microevolution as macroevolution, the overriding bias in all of the interpretations of the evidence for the origin of life, and the technique of immunizing evolution theory against disproof by mongering-in subsidiary hypotheses to explain away and neutralize conflicting facts. As, for example, efforts to explain away the absence of intermediate fossils, a fact that was recognized even before the *Origin of Species* was written.

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†As is explained in the text, this item began as a review of *Charles Darwin and the Problem of Creation*, by Gillespie, Reference 1, and developed into an article.

The Victorian Era

Proevolution authors seem to make a point of omitting consideration of socio-economic conditions at the time of the publication of the *Origin of Species*. Readers are given the impression that the social matrix of the times was irrelevant and that the positive science episteme is the result "of pure reason untouched by the world."[5] I am convinced of quite the opposite—that the scientific and technological revolution that the Victorian era was experiencing was of paramount importance to the development of the positive science episteme. I would go far as to say that evolution theory and positivism, which it requires, are a direct product of what today is generally referred to as the industrial or scientific revolution. The industrial revolution made public attitude amenable to a prejudiced episteme. The success factor for evolution theory was not the invincible evidence or the soundness of the theory, but the utopian dream of a new world wrought by science. This dream that nearly everyone shared placed the public in an ingenuous frame of mind; was not evolution theory delivered to us under the auspices of science? Are not scientists the great benefactors of our time? Is not the scientific method infallible? Seldom in the history of mankind had the power and the prestige of a fraternal group risen so rapidly and to such dizzying heights as that of the scientific community. The impressions of Macaulay, the noted English historian, are described as follows:

> Macaulay was full of admiration for the scientific revolution he was witnessing in the early nineteenth century, and in this, as in so many things, he typified his age. For him as for others, then and now, "science" meant only partly empiricism, a method of looking at data. More immediately, more tangibly, "science" meant the secondary results of the method: the products of technology. During the long reign of Queen Victoria, "science" transformed many of the conditions of people's lives. The first railroad was built in England in 1825, when Victoria was a little girl; before that, the maximum speed of land travel was for up-to-date Englishmen as it had been for Caesars and Pharaohs—the speed of the horse. But before the Queen and Empress died, almost all of Britain's now existing railroads had been built: "science" had begun that liberation of man from animal muscle, that acceleration toward inconceivable velocities which is so characteristic of our own age and is still as impressive to us as it was to the Victorians.
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> Impressive: "science was *doing* things, making things *work*. The practical, empirical, positivistic British temperament was fascinated. While Victoria occupied the throne, transatlantic steamship service was begun; power-driven machines revolutionized industry; the telegraph became a practical instrument and the telephone was developed; the electric lamp and the automobile were produced. Eight years before the *Origin*, the Victorians celebrated *Progress* at the first world's fair, in the fabulous Crystal Palace, where Macaulay felt as reverent as at St. Peter's. "Science" was making things happen; it could predict their occurrence; its success precluded doubt. It seemed to many, at the time, final and unambiguous. One could depend on it.[6]

The sociologists immediately recognized the philosophical implications of the theory and began introducing it to the public on that basis. The question of the scientific validity of the theory became and remains, for most people, lost in its philosophical consequences.

Evolution theory supposedly arose by science and by science it must stand or fall, and yet it soon happened that the theory became instead a popular ethical, social and philosophical concept that soon permeated nearly every aspect of Western culture:

> Persuasive because "science" was persuasive, evolution became a watchword to the late Victorians. By the end of the century, hardly a field of thought remained unfertilized by the "new" concept. Historians had begun looking at the past as "a living organism"; legal theorists studied the law as a developing social institution; critics examined the evolution of literary types; anthropologists and sociologists invoked "natural selection" in their studies of social forms; apologists for the wealthy showed how the poor are the "unfit" and how Progress, under the leadership of the "fit" was inevitable; novelists "observed" their creatures as they evolved in an "empirical" way: and poets hymned a creative life-force.[7]

The social Darwinists had become an unexpected and powerful ally to the evolutionists. The social, ethical and philosophical selling points propagated by evolution theory and enforced by the Victorian's overriding awe of science became the chief defenses for evolution theory. George Bernard Shaw candidly stated that:

> Never in history, as far as we know, had there been such a determined, richly subsidized, politically organized attempt to persuade the human race that all progress, all prosperity, all salvation, individual and social, depend on an unrestrained conflict for food and money, on the suppression and elimination of the weak by the strong, on Free Trade, Free Contract, Free Competition, Natural Liberty, Laissez-Faire: in short, on "doing the other fellow down" with impunity . . .[8]

Charles S. Pierce arrived at a similar conclusion that Darwin's hypothesis was nowhere near to being proved, but its favorable reception "was plainly owing, in large measure, to its ideas being those toward which the age was favorably disposed, especially, because of the encouragement it gave to the greed-philosophy".[9]

The theory had become, to a large degree, removed from accountability to the scientific community that had spawned it. Evolution theory rode to acceptance on the coattails of the positive science episteme. The new materialism of the age required a materialistic explanation for the origin of life. Consequently no matter how many facts contradict evolution, it still had to be accepted because the alternative was creation, and creation was contrary to positivism. In other words, evolutionists have the mental capability to be true to positivism, while being unfaithful to science and all the

while giving the impression that they are the great defenders and lovers of science. For example, "Joseph LeConte believed in evolution despite what he took to be the adverse verdict of geology because regularly occurring 'secondary causes and processes' were all that science knew, and that meant evolution."[10] In other words, he believed in evolution because he believed in positivism, which of course, begs the question as to how life originated. I would venture to guess that LeConte's attitude is typical of many present-day evolution proponents.

The Bias of the Founders of Evolution Theory

There is evidence that the main attraction to evolution theory for some of the founders was not the "scientific-ness" of it, but the negative effect it has on organized religion. Evolution theory was seen as a way to advance their philosophy while diminishing the influence of religion.

Edwin G. Conklin, late professor of biology at Princeton, frankly admitted that "The concept of organic evolution is very highly prized by biologists, for many of whom it is the object of genuinely religious devotion, because they regard it as a supreme integrative principle. This probably is the reason why severe methodological criticism employed in other departments of biology has not yet been brought to bear on evolution speculation."[11]

T. H. Huxley may serve as a case in point. Huxley was the self-proclaimed teacher of the theory in England. He took it upon himself to introduce the theory to the public with a series of articles and lectures. Personally he regarded Darwin's theory as merely a "working hypothesis," which is a rather low status; an hypothesis being considered something less than a theory. Yet, he reportedly tells his wife that "By next Friday evening, they will all be convinced that they are monkeys."[12] Why the contradiction? Why the desire to convince an awestruck public that the status of the theory is anything more than a "working hypothesis"? Perhaps his thinking was influenced by his well-known religious animosity.

John Dewey, one of the founders of the progressive education movement, recognized that "the new logic of Darwin's forswears inquiry after absolute origins and absolute finalities in order to explore specific values and the specific conditions that generate it. This has been the most common philosophical import of the *Origin*."[13]

Exclusion of theology and the concept of special creation was looked upon by some as the great virtue of evolution theory. Julian Huxley, grandson of T. H. Huxley and one of the chief spokesmen for the theory, declared "that he was an atheist and that Darwin's real achievement was to remove the whole idea of God as a creator of organisms from the sphere of rational discussion."[14] In the same vein, Ludwig Plate, a German advocate of the theory, explains that "Darwin's greatest service in his opinion is in the fact that he saw to explain organic finality out of natural forces to the exclusion of any metaphysical principle operating with conscious intelligence."[15]

Ernest Haeckel, the German promoter of the theory, reacted similarly when for him "Christianity had been superseded by a worship of humanity in general combined with enthusiasm for the enlightened minds of classical antiquity and hatred against the ecclesiastical reaction . . . "[16]

Finally, John A. Moore, present-day spokesman for evolution, (not to be confused with John N. Moore, a well-known creationist) seems to echo the founders regarding the positive science episteme when, in an article in *The American Biology Teacher*, he laments the statistics that indicate: "Among 16 to 18-year-olds, 71% believe in ESP, 64% in angels, 28% in ghosts."[17] He seems to think that it is the responsibility of secondary education to root out belief in the paranormal or supernatural and that the public schools have failed in this responsibility. Moore's regrets are contrary to reality. I do not think a majority of parents are concerned about having their children disbelieve in the supernatural. Nor do a majority of educators think it is their responsibility to indoctrinate students into believing only that which is scientifically explainable. Perhaps evolutionists' concern about the supernatural is that as long as some people believe in it there will also be some who will believe in creation.

I do not mean to imply that everyone who accepts evolution theory as an explanation for the origin of life shares the same animosity toward theology that Haeckel and Huxley shared, but I do believe that most of them are convinced that the positive science episteme is justified and consequently their objectivity is jeopardized. The point of all of this is that a scientific theory should stand or fall on its scientific merits and should not be maintained on its philosophical ramifications or a prejudiced episteme.

Sometimes positivism is described under the misnomer of the Doctrine of the Neutrality of Science. Chauncey Wright, an occasional professor of mathematics at Harvard, is credited with this idea. He became interested in evolution shortly after the *Origin* was published to the extent that he carried on a personal correspondence with Darwin and published articles in defense of the theory. Wright's "neutrality" doctrine called upon investigators to be free from the domination of *a priori* systems at all times keeping ethical sentiments separate from scientific knowledge. Thus Darwin's system was a scientific theory of biology, a hypothesis which had no necessary causal effect on religious, philosophical, or social matters. Also, evolution theory was to be presented "with no regard for any considerations that might produce unnecessary and unwarranted 'conflicts' with religion."[18] At first glance, the neutrality concept seems like an acceptable bit of logic until one realizes that, if we cannot consider origins theistically, then we must, from lack of choices, consider it only meterialistically. The Doctrine of the Neutrality of Science is really a license to consider scientific evidence for the origin of life only from an *a priori* belief in evolution.

Evolution Dogma

Perhaps it would be well to demonstrate how positiv-

ism biases the evidence and the curriculum. Let us analyze comparative anatomy, one of the studies which is supposed to supply the hypotheses that make up the theory, and perhaps one of the most impressive when considered exclusively from an evolution bias. Comparative anatomy means to compare body parts and, according to the evolution belief, this means that anytime similarities are observed among plants or among animals it is taken to indicate that they had a common evolutionary ancestor. It is quite convincing to see pictures of the skeletal similarities of a turtle and the human being, for example, and interpret the similarities to mean they evolved from a common ancestor. What the student often fails to realize is that one may compare body parts down to the molecular level, but it will never ever tell us how these organisms originated. In other words, comparative anatomy is convincing only so long as the observer *a priori* assumes evolution. There is no test to prove the evolution interpretation of comparative anatomy. Other nontestable hypotheses in the congeries of hypotheses that make up evolution theory are geographic distribution, embryology, and vestigial parts. Evolutionists, like pioneer natural philosophers in the past, fail to make a distinction between testable and non-testable hypotheses. Darwin himself, in a letter to Asa Gray, admitted: "I am quite conscious that my speculations run quite beyond the bounds of true science."[19] The history of science reveals a long struggle between those who would neglect and de-emphasize experimentation to test hypotheses and those who would give emphasis to it.

Ritterbush, describing eighteenth century naturalists, reports that "Although the authority of science was invoked on their behalf, the concepts reflected an improper understanding of organic nature, far exceeding the evidence given for them, and too often led naturalists to neglect observation and experiment in favor of abstract conceptions."[20] He also describes them as preferring unlimited explanation based upon speculation rather than limited explanation relying upon experimentation. In a similar vein, Nordenskiold notes that, "During the reign of romantic natural philsophy, conditions were different, the representatives of that school, who imagined that they could solve all the riddles of existence by speculation, deeply scorned experiment, which they considered led to fruitless artifice."[21]

On the other hand, Leonardo da Vinci, noted for his scientific as well as his artistic accomplishments, insisted upon experimentation: "If experience fails to confirm the hypothesis, it must be abandoned; and apart from positive experimental confirmation it has no value."[22] Rene Descartes, seventeenth century science reformer, insisted that hypotheses ". . . must receive a completely cogent demonstration before they can properly be admitted as scientifically valid conclusions."[23] Roger Bacon ". . . saw clearly the value of the experimental method as the only route to certainty."[24] Bacon lived in the thirteenth century and was a pioneer advocate of experimentation to test hypotheses. (Sometimes critical observation—not speculation—is a sufficient experiment or test.) Advancing to the present time, Dellow states that ". . . experiment is the final arbiter."[25] Thus we see a unity of thought spanning some seven hundred years.

Finally, Sir Karl Popper advances the issue further by pointing out the obvious: "A theory which is not refutable by any conceivable event is nonscientific." And ". . . the criterion of the scientific status of a theory is its falsifiability, or refutability, or testability."[26] He also urges investigators to "Try again and again to formulate the theories which you are holding and to criticize them. And try to construct alternative theories —alternatives even to those theories which appear to you inescapable; for only in that way will you understand the theories you hold. Whenever a theory appears to you as the only possible one, take that as a sign that you have neither understood the theory nor the problem which it was intended to solve."[27]

We have learned, then, that nontestable hypotheses are not even in the realm of science and that alternative hypotheses should always be considered. Alternatives will introduce skepticism, the forerunner to objectivity. But if nontestable hypotheses are non-scientific, what is their status? What they must be are statements of belief based upon a certain set of facts influenced by the investigator's personal philosophy, religion, or intuition. Others with a different philosophy, religion, or intuition may view the same set of facts entirely differently.

Alternative creation interpretations for the evidence would serve to remove the theory from the realm of scientific dogma. Why not consider creation? The creation reply to the evolution interpretation for comparative anatomy could be: What if similarities are observed? One would expect similarities among organisms under the *a priori* assumption of creation. One would not necessarily expect each kind of organism, all living in the same biosphere, to be unequivocally different in every detail from every other kind of organism. There is no test for either the creation or evolution interpretation for comparative anatomy; consequently, it proves nothing in that it is supportive of both beliefs. Can the creation interpretation be faulted, when the evolution interpretation is obviously just as much a matter of personal belief?

Darwin's Confusion

Probably no one was more confused about the question of the origin of life than Charles Darwin. He, of course, rejected the idea of creation and even went so far as to formulate "tests" which, to him, disproved creation. For example, God would only have created distinct species; he would not have made hybridization a possibility.[28] God would not have created rudimentary organs.[29] God would not have created orchids with such an "endless diversity of structure" simply for achieving fertilization.[30] God would have created the blind cave animals of Europe and America, because of their identical conditions to life, to resemble each other closely; instead they are not closely allied.[31] God would not have created plants to be so prodigal in the amount of pollen they produce—only a small amount of which is utilized in fertilization.[32] Well, all that these quaint "tests" tell us, of course, is how Darwin would or would not have created. Apparently the positive science

episteme does after all allow consideration of creation, but only if it is considered in a negative context.

Darwin also rejected theistic or designed evolution, the idea held by some of his contemporaries that the evolutionary process was somehow under the direction of God. His reason for rejecting theistic evolution was that it "was but a disguised form of special creation."

> I entirely reject, as in my judgment quite unnecessary, any subsequent addition "of new powers and attributes and forces"; or of any "principles of improvement," except insofar as every character which is naturally selected or preserved is in some way an advantage or improvement, otherwise it would not have been selected. If I were convinced that I required such additions to the theory of natural selection, I would reject it as rubbish . . .I would give nothing for the theory of Natural Selection, if it requires miraculous additions at any one stage of descent.[33]

Theistic evolution had to be rejected by Darwin because it ran contrary to the positive science episteme in that it failed to "ungod the universe." Also, it made his mechanism for evolution, natural selection, superfluous. If variations and/or selection was preordained, there was no point in even considering the mechanism. Evolution simply became a slowed-down version of creation.

Rejection of special creation and theistic evolution leads us to the one remaining option—chance or atheistic evolution, which is what is taught in the typical textbook. One would think that this must be where Darwin stood. But, no, we find that he also rejected chance. In a letter to Asa Gray he wrote:

> I grieve to say that I cannot honestly go as far as you do about Design. I am conscious that I am in an utterly hopeless muddle. I cannot think that the world as we see it, is the result of chance; and yet I cannot look at each separate thing as the result of Design.[34]

Late in his life, in a conversation with the Duke of Argyll, who commented to Darwin that "it was impossible to look at the numerous purposeful contrivances in nature and not see that intelligence was their cause," Darwin "looked at (him) very hard and said, 'Well, that often comes over me with overwhelming force; but at other times,' and he shook his head vaguely, adding 'it seems to go away.' "[35]

Having rejected creation, theistic or designed evolution, and atheistic or chance evolution, Darwin seemed to have been in a hopeless muddle on the question of the origin of life. Gillespie concluded that he died with some vague notion of theism. It seems reasonable that, if Darwin's theory is taught, his confusion on the subject should also be part of the curriculum.

Present-Day Attitudes

The Victorian generation has long since passed away and this generation has become the jaded inheritor of a scientific revolution, some aspects of which inspire fear and dread rather than the old confidence. Science and technology are now viewed through the baleful eyes of those who have discovered their "hidden worms," mainly in the form of environmental degradation and health hazards. The new public attitude toward science and technology is plainly noted in a recent issue of *Science:*

> Important to the future of science and technology is the fact that the public has somewhat lost confidence in the ultimate value of the scientific endeavor. It is not that they hold pure science or scientists in any less esteem. But they are less certain that scientific research will inevitably yield public benefit.
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> For the first time in centuries, there are thoughtful persons who are not morally certain that even our greatest achievements do, indeed, constitute progress. To some philosophers it is no longer clear that objective knowledge is an unquestioned good.[36]

In a *Time* magazine essay entitled *"Science: No Longer a Sacred Cow,"* the author called the moon explorations the grand finale in the continued rise of the prestige of science. Contrast excerpts from the *Time* essay with Macaulay's description of science and technology cited earlier:

> Sure enough, down it (prestige) went. And in its place has risen a new public attitude that seems the antithesis of the former awe. That awe has given way to a new skepticism, the adulation to heckling. To the bewilderment of much of the scientific community, its past triumphs have been downgraded, and popular excitements over new achievements like snapshots from Mars seem to wane with the closing words of the evening news. Sci-Tech's promises for the future, far from being welcomed as harbingers of Utopia, now seem too often to be threats. Fears that genetic tinkering might produce a Doomsday Bug, for example, bother many Americans, along with dread that the SST's sonic booms may add horrid racket to the hazards (auto fumes, fluorocarbons, strontium 90) that already burden the air.
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> The new skepticism can be seen, as well as heard, in the emergence of a fresh willingness to challenge the custodians of our technical know-on their own ground. It is most conspicuously embodied in the environmental crusade and the consumer's rebellion, but is also at play across a far wider field. It applies to public light and political heat to Detroit's automotive engineers, who for generations had dispatched their products to an acquiescent public. It encompasses protests against the location of dams massively certified by science, to open disputes about the real values of scientifically approved medicines, and the increasing willingness of patients to sue physicians to make them account for mistakes in treatment. Sci-Tech, in a sense, has been demoted from a demigodhood. The public today rallies, in its untidy way, around the notion that Hans J. Morgenthau put into words in *Science: Servant or Master?:* "The scientists' monopoly of the answers to the questions of the future is a myth."
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> The fading of this mythology is the result of Americans' gradual realization that science and

technology's dreamy wonders sometimes turn out to be nightmarish blunders. Detergents that make dishes clean may kill rivers. Dyes that prettify the food may cause cancer. Pills that make sex safe may dangerously complicate health. DDT, cyclamates, thalidomide and estrogen are but a few of the mixed blessings that, altogether, have taught the layman a singular lesson: The promising truths of science and technology often come with hidden worms.[37]

The Role of Education

The time has come to dispel the grand delusion and reject the positive science episteme. It is time for education to establish its own criteria upon the evolution curriculum. Darwin as scientist does not qualify as Darwin as teacher. The criteria that Darwin used to develop his theory are not up to par as the criteria used to teach the theory. In other words, positivism in education means indoctrination.

Following are some of the curriculum objectives that I have developed over a period of ten years. They serve to remove evolution theory from the realm of scientific dogma so that one may teach rather than indoctrinate. To begin with, the congeries of hypotheses that one finds in the typical textbook, and most of which Darwin used in the *Origin*, should be categorized into testable or nontestable hypotheses. The basic hypotheses would then be categorized as shown in Table 1.

An educator need not teach any particular account of creation, which would probably require the teaching of all accounts of creation. Creation should be considered only in relation to the scientific evidence presented for evolution, without any theological elaborations. When this is done, it becomes obvious to students that the textbooks are biased and that the nontestable hypotheses may be interpreted satisfactorily for creation. A creation consideration of the nontestable hypotheses immediately removes the theory from the realm of scientific dogma. It is, of course, contrary to the positive episteme, because it no longer ungods the universe, but education must reject positivism.

Concerning the testable hypotheses, one must consider the unthinkable—does evolution theory pass or fail tests? In most cases the test is simply a critical observation of our environment. For example, Darwin never observed natural selection and was forced to use imaginary examples in the *Origin*. If natural selection is not observed, why isn't it?

To ask whether or not evolution theory passes tests is based upon the following alternative: To use the vernacular, the bottom line in evolution theory is that chance can create an intelligent design; this is what is taught in the typical textbooks. The alternative is that our ability to reason as human beings is the result of creation rather than chance. Remember, also, that science is basically a reasoning process. If that is true, it would mean, then, that any scientific theory that denies the existence of God would have to be unreasonable, unscientific, and in some way or ways subject to disproof. The creation alternative requires that we ask ultimate questions—evolution or dogma does not.

Table 1. Testable and non-testable hypotheses contrasted.

Testable Hypotheses	Non-testable Hypotheses
natural selection	comparative anatomy
artificial selection	geographic distribution
mutations	embryology
fossil record	vestigial organs

Conclusion

Space does not permit an analysis of the hypotheses. The point that I wish to make is that a distinction is made between testable and nontestable hypotheses which allows for consideration of creation. My personal experience of including a creation alternative indicates that parents have rejected positivism and its biased policy of exclusion. Educators must be prepared to do likewise. The old convoluted logic of positivism that evolution must be accepted because it is forbidden to consider alternatives has no place in education. For those who are philosophically committed to evolution theory, the problem is obvious—they must decide whether or not they can place professional standards above personal beliefs.

References

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[2]*Ibid.*, p. 3.
[3]*Ibid.*, p. 15.
[4]*Ibid.*, p. 53.
[5]*Ibid.*, p. 6.
[6]Appleman, P., (ed.), 1970. Darwin-a Norton critical edition. W. W. Norton Co., Inc. pp. 632-633. Chesterton wrote somewhere of the notion that God would make all things work for good, if only man would be evil enough.
[7]*Ibid.*, p. 633.
[8]Wiener, P., 1969. Evolution and the founders of pragmatism. Peter Smith Publisher, p. 78.
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