



1990

Should Students Be Taught How to Question the Evolution Evidence?

Randall Hedtke

Follow this and additional works at: https://digitalcommons.cedarville.edu/icc_proceedings

DigitalCommons@Cedarville provides a publication platform for fully open access journals, which means that all articles are available on the Internet to all users immediately upon publication. However, the opinions and sentiments expressed by the authors of articles published in our journals do not necessarily indicate the endorsement or reflect the views of DigitalCommons@Cedarville, the Centennial Library, or Cedarville University and its employees. The authors are solely responsible for the content of their work. Please address questions to dc@cedarville.edu.

Browse the contents of [this volume](#) of *The Proceedings of the International Conference on Creationism*.

Recommended Citation

Hedtke, Randall (1990) "Should Students Be Taught How to Question the Evolution Evidence?," *The Proceedings of the International Conference on Creationism*: Vol. 2 , Article 20.
Available at: https://digitalcommons.cedarville.edu/icc_proceedings/vol2/iss1/20

SHOULD STUDENTS BE TAUGHT HOW TO QUESTION THE EVOLUTION EVIDENCE?

Randall Hedtke
Route #1, Box 219
Clearwater, MN 55320

INTRODUCTION

Should students be taught how to question the evolution evidence? That question exemplifies what the origins curriculum controversy is all about. Some people want the evidence questioned and others do not. The non-questioning version is the Darwinian method. It is based upon the seller's adage: "Let the buyer beware". It is not in the best interest of the seller to point out flaws in his product to potential buyers. So it was that when Darwin introduced his theory to the public it was not in his best interest to point out problems with the theory, which in turn would reflect negatively on the concept of materialistic origins. Scientific objectivity is something that can never be assumed, but must be proved. The tradition of a noncritical evaluation of the evolution evidence continues today in nearly every science classroom.

Basically, there are two ways to teach evolutionism. The non-questioning method, in which the educator wants the student to buy into the theory without ever learning the data problems, is emotional, religious, proselytizing and, of course, an educational fraud. Everybody holds to some sort of belief about origins and, because the question of origins is inherently and unavoidably religious, there is also a tendency to proselytize the belief in origins that one holds to. Those who advocate a materialistic belief in origins, based upon evolutionism, proselytize their belief by means of a non-questioning evaluation of the data. This problem is compounded and intensified if the evolution advocate is a member of a church that has incorporated evolutionism into its theology.⁽¹⁾ In this case, we have someone who is trying to have his church's belief system taught in the public schools. Or one may be an advocate of a so-called secular belief system, such as Humanism. The ethic is the same; they want information withheld from students in order to advance their belief system.

The other method of teaching evolutionism consists of unemotional, nonreligious intellectualism. The purpose is to calculate just how reliable and how valid the evidence really is. There is no emotionalism, therefore, no censorship. In the end, each student makes his or her own estimate as to the reliability of the evidence for origins. One would think that it would be unequivocal that the questioning evolution curriculum should be the only kind taught, and it would be, except that the public thinks that that is exactly what is being taught. They assume scientific objectivity is in force in the curriculum, when in fact it is not. In a religious curriculum, the belief system proves the data. This is the technique used by evolution scientists and creation scientists. The reality of the matter is that it is not possible to experiment and replicate historical events. In a strictly intellectual curriculum, we know that the data will support all kinds of beliefs in origins and prove no particular one, which is why the controversy won't go away. We know it is mythological that any mortal can observe the present environment and thereby discover the past.

An origins curriculum aimed at questioning the evolution evidence calls for a totally different set of learner outcomes than one that does not. Learner outcomes advocated by those who do not want the data questioned are essentially just the opposite of the following:

The learner will:

- A. Develop an open-minded attitude regarding evolution data. Students will learn that all of the facts are questionable and the evidence never complete, consequently, every item of evidence and every scenario is subject to alternative viewpoints. They will learn that the environment is an open book and that one is free to criticize the evolution data from any point of view.
- B. Develop a tolerant attitude towards beliefs about origins other than their own, not with platitudes from the teacher, but built into the curriculum.
- C. In the interest of openness, be informed of candid remarks made by evolutionists that cast doubt upon the theory.
- D. Come to know this central truth: Because the evidence for origins is all in the eye of the beholder, neither creation scientists nor evolution scientists can practice the technique of observing the present environment and thereby discover the past. It is a myth that any mortal can do this. One may do so to the degree that it satisfies one's own personal needs, but it cannot be done for an entire society. Or to state it another way, either no one can do it or everyone can do it, each in his own way. The validity of the evidence is determined on the basis of belief systems, not experimentation.
- E. Develop critical thinking skills regarding evolution data.
- F. Know that, if a theory or point of view is treated only as a doctrine to be validated, and not one to be challenged, it is not within the realm of science and more properly belongs in the realm of ideology or a religious tenet.

The following pages provide the rationale for these learner outcomes.

PROVING THE MYTH OF THE METHODOLOGY

The evolution-creation question consists of nothing more than opinions, beliefs, prejudices, and discrimination. The degree of "science" involved in the question is no greater than any avowedly theological or philosophical question. We are blind to the close-mindedness of the curriculum, because of our belief in the open-mindedness of science. It is only by deliberately subjecting each item of evolution evidence to a proliferation of ideas and opinions that we see the complete absence of any kind of experimental science. Evolutionists have been permitted the freedom to interpret the evidence from the environment in an effort to confirm their belief system, but everybody else in the world is equally free to criticize the evolution interpretations from any other point of view. Proliferation, or the technique of subjecting evolution data to alternative beliefs and opinions is a wonderful process; it reveals so much. For example, every item of evidence that is supposed to give credence to evolutionary theory may be interpreted from some other materialistic viewpoint, which is orthodox, or from some other nonmaterialistic viewpoint, which is unorthodox. Ostensibly, evolutionary theory is being evaluated, but in reality, it is the belief system behind it that is being questioned.

Yes indeed, proliferation is a very revealing technique. "Hypotheses contradicting well-confirmed theories give us evidence that cannot be obtained in any other way. Proliferation of theories is beneficial for science, while uniformity impairs its critical power. Uniformity also endangers the free development of the individual."(2) Subjecting evolution data to a variety of ideas and opinions reveals the myth to which I previously referred. Charles Darwin wrote a theory, but in the process he created a myth that has remained unquestioned even today. Darwin's method was to observe the present environment and thereby discover the past. The problem is that he practiced the technique from the point of view of a single belief system and therein lies the dogma. What a proliferated evolution curriculum does not do is prove conclusively that evolution is a myth, nor does it prove conclusively that creation is a myth. What a proliferated curriculum does do is prove that Darwin's methodology is a myth. No individual or group has the expertise, clairvoyance, the wherewithal to observe the present environment and thereby discover the past. It is simply impossible for anybody to do that in any remotely conclusive way for

an entire society. The methodology allows all points of view to be valid. Belief systems determine validity, not experimentation and replication. Only the tyranny of opinion keeps contrary viewpoints suppressed.

Counterinduction is a form of proliferation whereby one theory is compared to another opposing theory in order to bring out new insights that would otherwise remain hidden from the human mind. It is absolutely essential in order to move evolutionism out of the realm of religious proselytizing toward objective intellectualism.

The first step in our criticism of commonly used concepts is to create a measure of criticism, something with which these concepts can be compared. Of course, we shall later want to know a little more about the measuringstick itself; for example, we shall want to know whether it is better than, or perhaps not as good as, the material examined. But in order for this examination to start there must be a measuringstick in the first place. Therefore, the first step in our criticism of customary concepts and customary reactions is to step outside the circle and either to invent a new conceptual system, for example a new theory, that clashes with the most carefully established observational results and confounds the most plausible theoretical principles, or to import such a system from outside science, from religion from mythology, from the ideas of incompetents, or the ramblings of madmen. This step is, again, counterinductive. Counterinduction is thus both a fact--science could not exist without it--and a legitimate and much needed move in the game of science.(3)

Many evolutionists would probably like to go to the U.S. Supreme Court Justices and plead, "Make teachers and students stop proliferating unorthodox ideas about our evolution data". Happily, the Justices are not about to get into the business of thought control and have ruled, in *Edwards v. Aquillard*, in favor of proliferation:

(T)eaching a variety of scientific theories about origins of humankind to school children might be validly done with the clear secular intent of enhancing the effectiveness of science instruction.

Teachers have the flexibility "to supplant the present science curriculum with the presentation of theories, besides evolution about the origin of life."

This is not a constitutional problem. The problem lies entirely with evolutionists and the evidence they use for their belief. If they do not want proliferation of unorthodox ideas, which is a natural intellectual process, don't use evidence that is wide open to alternatives and then use intimidation to preserve orthodoxy. But when it comes to the question of origins, circumstantial evidence is all that is available.

Everyone considering evidence about origins must of necessity, not choice, practice the identical "scientific method". It is the method described by Albert Einstein: "But on principle, it is quite wrong to try founding a theory on observable magnitudes alone. In reality, the very opposite happens. It is the theory which decides what we can observe."(4) That is the exact reverse of the test-by-facts methodology by which the philosophers say science always proceeds. In other words, it is the personal belief that determines what we want to observe. Can we say that it is the superior logic of the evolution interpretations that justifies suppression of other view points? No, there is no universal standard of logic to which one may appeal and to which everyone must adhere, "one man's reason is another man's insanity".(5)

But on every subject on which difference of opinion is possible, the truth depends on a balance to be struck between two sets of conflicting reasons. Even in natural philosophy, there is always some other explanation possible of the same facts; some geocentric theory instead of heliocentric, some phlogiston instead of oxygen; and it has to be shown why that other theory cannot be the true one: until this is shown, and until we know how it is shown, we do not understand the grounds of our own opinion. So essential is this discipline to a real understanding of moral and human subjects, that if opponents of all important truths do not exist, it is indispensable to imagine them, and supply them with the strongest argument which the most skillful devil's advocate can conjure up.(6)

Have you ever stood by while two young people argue in a friendly manner? I am thinking of a thrust and parry kind of argument where one participant makes a point and the other attempts to neutralize it with something right off the top of his head. This is

the kind of argument or debate that exists between proponents and opponents of evolutionism. The nature of the method that they are forced to use dictates that the controversy must have a thrust and parry quality about it. This is what I mean:

Opponents of evolutionism make the point that the concept of evolution, that is, of going from simple to increasing complexity, is contrary to the Second Law of Thermodynamics, which states that matter goes from order to disorder. Evolution scientists must neutralize that argument so they say that the Second Law of Thermodynamics applies to a closed system, but the earth and its source of energy, the sun, constitute an open system. They are saying, in effect, that evolution is an exception to the rule and who can argue against an exception to a rule? What the actual truth is nobody can say, therefore, neither opinion can be rejected.

Mill: If all mankind minus one were of one opinion, and only one person were of the contrary opinion, mankind would be no more justified in silencing that one person, than he, if he had the power, would be justified in silencing mankind.

A LIBERATED CLASSROOM

The following origins curriculum takes into consideration the National Education Association Code of Ethics which states, "A teacher shall not unreasonably deny students access to varying points of view." It also takes into consideration John Stuart Mill's famous civil rights essay, "On Liberty". Basically, Mill's essay deals with the freedom to have opinions different from the conventional and to act upon those opinions as long as it is not harmful to others. Mill also warned against governmental or socially imposed tyranny which would prevent one from thinking as one pleases. I have interspersed quotes from Mill among those from students. I wanted to know how students would respond to the evolution data were they provided a classroom atmosphere conducive to a questioning attitude. I wanted the opinions to come from them, rather than, as I had done in previous years, provide them with an alternative viewpoint. We discussed the data as interpreted from an evolution viewpoint then students could formulate unorthodox explanations from any other point of view. I used the evidence from alleged human evolution as an example:

Evolutionists have a variety of fossils which they attribute to be evidence for human evolution. In the thrust and parry game, the unbelievers must counter the evolution assertions regarding the fossils. Since there is no science involved, only evidence that may have a variety of interpretations attached to it, creationists and other unbelievers of evolutionism may respond with their assertion that the fossils are really extinct races of humans or extinct species of apes or gorillas having nothing to do with evolution. To strengthen their point of view, they may add that most of the fossils are found on a continent with native populations of apes and gorillas, that the Piltdown man was really the skull of a human and the jaw of a chimpanzee and the Neanderthal man is classified as Homo sapiens. There is no agency to turn to that can tell us who is right or wrong. Many students may be inclined to think that the nonevolutionary explanation for the fossils is more rational than the evolutionary one. But evolution has to be right if it is the only point of view available for consideration. Nature's data belongs to everyone and each individual can use it in whatever way suits his or her belief system.

Mill: No one can be a great thinker who does not recognize, that as a thinker it is his first duty to follow his intellect to whatever conclusions it may lead. Truth gains more even by the error of one who, with due study and preparation, thinks for himself, than by the true opinions of those who only hold them because they do not suffer themselves to think.

One standard evidence used in support of evolution are the similarities among embryos also known as comparative embryology. According to evolutionists, any similarities noted among embryos of different animals are evidence of common descent. In reality, one may make comparisons down to the molecular level but it will never tell us how life originated.

What is a nonevolutionary explanation to account for similarities among embryos? Students' written responses:

All organisms are simple at one point, so everything compares at certain times.

All embryos are different even though they have similarities.

All life needs some ingredients to live so they would have some similarities.

An embryo is at an early stage of life and is not fully developed. So similarities can be seen in the embryos of almost every form of life.

Most animal life starts with the same basic components. It is just like making eggs, there are so many ways to prepare them, but you always end up with an egg dish.

They have no different shape, so they look alike.

A couple of blobs look a lot alike.

All living things are started the same way; by the uniting of sex cells. So the embryo is also similar until the fetal stages.

It's like when you make a car, whether it's a Toyota or a Caddy, you start with a hunk of metal.

Similarities may occur but what's the end result?

My heart goes out to the unbeliever of evolutionism who is expected to sit through an evolution unit while the teacher presents evidence for origins contrary to what they believe. The teacher is too inconsiderate to tell the truth about the evidence. The teacher could proceed as follows: "Students your beliefs need not be discriminated against by the evidence for materialism. In the case of comparative embryology, you are free to consider the evidence as follows: Embryos begin as a single fertilized egg, therefore, one would expect some similarities to be observed among them. It may not mean anything in regard to evolution. One need not read anything more into comparative embryology." Why should a student sit through an explanation for origins evidence that disparages his or her belief system and has no greater scientific merit than one that is compatible to it?

Mill: But I must be permitted to observe, that it is not the feeling sure of a doctrine (be it what it may) which I call an assumption of infallibility. It is the undertaking to decide that question for others, without allowing them to hear what can be said on the contrary side.

Briefly, geographic distribution refers to the location of plants and animals on earth and, according to the evolution scenario, species found in isolated places and nowhere else must have evolved into existence in those locations. Presumably, this would mean that opossums and kangaroos, both marsupials, just happened to evolve into existence in separate places on earth. What is a nonevolutionary explanation for the distribution of organisms on earth? Several students responded with reference to plate tectonics, which they learned in ninth grade earth science:

The continents were joined together, then animals and plant life were separated. When the continents were separated, the plants and animals were trapped in certain places.

All the continents were connected at one time and the animals were all over and then the continents broke apart leaving animals in different parts of the world.

They migrated on frozen water.

When there were earthquakes or volcanic eruptions, it could have distributed them by splitting the continent in half.

A planet exploded and blew organism all over the universe and some landed on earth.

All organisms existed in their present form but the land was clumped into one giant continent. As plates moved in the earth's crust, the sea filled in the gaps that are now oceans.

Animals stuck in the clouds fell when the Big Bang created the universe, that's how we got the term, "raining cats and dogs."

Long ago, when animals were formed, the ocean was low enough so animals could roam wherever they please, then as time went on there were storms and the oceans were filled and the animals were left stranded there only to breed and eat and to survive.

This one's a jewel: They were happy wanderers and bird droppings. This student was not being facetious; she was thinking about seeds that pass through bird's digestive system.

Mill: There is the greatest difference between presuming an opinion to be true, because, with every opportunity for contesting it, it has not been refuted, and assuming its truth for the purpose of not permitting its refutation.

Mill: To call any proposition certain, while there is any one who would deny its certainty if permitted, but who is not permitted, is to assume that we ourselves, and those who agreed with us are the judges of certainty, and judges without hearing the other side.

Vestigial organs refer to parts in various organisms with no known use, such as the human appendix. According to evolution, vestigial parts are left over from evolutionary change. What are other explanations to account for vestigial parts without referring to evolution?

There is a reason for them, but it's just unknown.

There are many things created that have no substantial use and vestigial parts are simply a few of those.

They do have uses, we're not advanced enough to know them yet.

Each one really has a purpose even if it is just for cosmetic reasons.

These parts probably had a use when they were young or used in the mother's womb.

It never hurts to have extra parts.

Mill: He who knows only his own side of the case, knows little of that. His reasons may be good, and no one may have been able to refute them. But if he is equally unable to refute the reasons on the opposite side; if he does not so much as know what they are, he has no ground for preferring either opinion.

Comparative anatomy is basically the same type of evidence as comparative embryology, except that it is a comparison of adult forms rather than the embryonic forms. Similarities are always interpreted from an evolution bias as evidence of common descent. For example, one may see a great deal of similarities between the skeleton of a human and a turtle. What are some nonevolutionary explanations to account for similarities among organisms?

God made similar patterns. Apes are almost human-like. We are not from apes.

Organisms could've been made similar in order to interact with one another. Different species may have the same need, therefore, similar organs.

Everything was made by the same guy.

God had a master plan for all creatures.

They have similarities, that doesn't mean evolution was needed.

The great force or, something or someone greater than ourselves created all the species. These species all live on the same planet in very similar conditions, so they would need organs or parts that are alike.

They aren't really similar, they are quite different, but we are unaware of that.

You can make almost anything look alike.

They were given body parts that were similar because the animals have similar needs.

God liked the similarity thing.

It is just coincidence, our Creator just couldn't come up with anything original and had to use some similarities among the animals.

Being the incredible species we are with all of our complexities, there is also complexity in all living organisms. For life to exist, there must be one major scheme or "blueprint" of life.

God had a master plan for all structures and His plan had the general similarities that these do.

Mill: But it is not the minds of heretics that are deteriorated most by the ban placed on all inquiry which does not end in the orthodox conclusions. The greatest harm done is to those who are not heretics, and whose whole mental development is cramped, and their reason cowed, by the fear of heresy.

Natural selection is the mechanism by which evolution is thought to be possible. Darwin worked it out this way:

(fact) 1. Variations exist, no two members of a species are exactly alike.

(fact) 2. Populations have the potential to grow beyond their food carrying capacity.

The second fact Darwin learned from reading Thomas Malthus: "One day something brought to my recollection Malthus' Principle of Population...I thought of his clear exposition of the "positive check to increase"...disease, accident, war, and famine...It then occurred to me that these causes or their equivalence were continually acting in the case of animals also...It occurred to me to ask the question "Why do some die and some live?"...the best fitted lived...this self-acting process would necessarily improve the race."(7)

What is keeping populations in check? We are not, for example, overrun with frogs although a single female frog may lay thousands of eggs. Darwin's answer, briefly stated, is as follows: There is competition for food space, water, etc., and those with useful variations survive the struggle and pass their traits on, while others die out. The result is evolution. But remember, "there is always some other explanation possible of the same facts." So what are some other explanations for the facts of variability and the tendency for populations to grow geometrically? What are some other explanations for what is holding populations in check that have nothing to do with natural selection or evolution? Students' response:

One possibility is just the predator prey relationship. Mice are eaten by hawks no matter how fast they are. Wolves eat rabbits whether they have big feet or small and so on.

Predation, if humans don't interfere with nature, with the exception of controlled hunting, the animals will keep each other's populations under control.

Disease, fighting, maybe when there are enough animals of one species they eat up all the food, then some die or don't reproduce.

The food chain keeps the animal populations in check.

The earth was designed to support only a set of organisms, so the earth has safety valves like natural disasters, disease, and famine.

Nature--violent winters--droughts--predators.

Disease kills off some of the population and keeps it in check by all the organisms not remaining alive.

Mill: Precisely because the tyranny of opinion is such as to make eccentricity a reproach, it is desirable, in order to break through that tyranny, that people should be eccentric. Eccentricity has always abounded when and where strength of character has abounded; and the amount of eccentricity in a society has generally been proportional to the amount of genius, mental vigor, and moral courage it contained.

Although students do not specifically state it, they seem to be suggesting chance or random selection as a logical alternative. Some people may consider the students' explanations as to what is holding populations in check as being more rational than an elaborate evolutionary one. Are the students not proving that the evidence is all in the eye of the beholder and that all perceptions should have equality?

One question that can be raised by evolutionists regarding the fossil record is, "If evolution has not occurred, why are fossils strung out simple to complex?"

They aren't strung out simple to complex. The earth's crust was constantly moving and changing and as the fossils were being formed, they shifted around so there is no way to tell what order they are in the earth's crust.

The pressure from the upper layer of rocks destroyed by smashing or pressure the larger, bulkier fossils, leaving the greatest number of small fossils more or less unharmed.

Earthquakes caused the earth's crust to fold over.

Because when they were created, they were created simple to complex.

Maybe creatures of simple nature were preserved, a more complex animal decomposed and we don't have their records. Also, maybe simple life was placed on the earth before man or animals were.

The simpler fossils were made of nonbiodegradable materials and were preserved whereas, the more complex ones were made of softer materials and decomposed before they could be buried.

Because simple organisms needed more protection, thus they were lower and complex ones didn't need as much, so they lived on the land.

The simpler were lighter and smaller causing them to be pushed to the lower strata.

The simpler ones were more numerous and were easier to form into fossils, whereas, the more complex ones were not as numerous and harder to form into fossils.

Earth movement, also, water currents can wash fossils of one kind into one area, so it can be moved up or down easier.

Because God created everything and that is how He did it.

Like sand, little pieces go to the bottom.

The earth can move and shift them around and scientists can say that certain things are more complex.

Mill: First, if any opinion is compelled to silence, that opinion may, for aught we can certainly know, be true. To deny this is to assume our own infallibility.

As final proof that the evidence is all in the eye of the beholder, I asked students to play the critic for an anomaly in the fossil record and provide both an orthodox and an unorthodox explanation. The anomaly to which I refer is the absence of intermediate fossils, the existence of which is predicted by evolutionary theory. The problem is not discussed at all in the textbooks that we use. Intermediate fossils would show a transitional development from one kind to another, instead we find systematic gaps between major animal phyla. There are a few debatable fossils, but only a large number of intermediate fossils will dispel the problem. In these responses, the same student is providing the orthodox and the unorthodox explanation:

Think of an orthodox explanation for the absence of intermediate fossils, one that is not critical of evolution.

The people who are looking for the fossils are not looking in the right places and they should be looking not only for intermediate fossils to try to prove their point, but also prove that there is even a location where intermediate fossils have been found, or are supposed to be.

Think of an unorthodox explanation for the absence of intermediate fossils, one that is critical of evolution.

Evolution did not take place, therefore, there are no intermediate fossils.

Orthodox: Over a long period of time land erosion could cover them, which makes them impossible to find. Only by chance could one come across one.

Unorthodox: Evolution cannot prove that intermediate fossils exist.

Orthodox: The intermediate fossils haven't been found yet.

Unorthodox: There never were intermediate fossils because animals didn't change.

Orthodox: Intermediate animals decayed quickly, they were not in places where they could be quickly covered with sediment.

Unorthodox: There is no such thing as an intermediate animal. Animals were created as they now exist.

Orthodox: The fossils are yet intact, but either are often mistaken or yet have not been discovered.

Unorthodox: Obviously, if one were to be critical of evolution, the reason for the absence would be that there never were any, because evolution is out of the question.

Orthodox: It happened too long ago and scientists haven't gotten to that layer of sediment yet.

Unorthodox: Evolution never happened.

Orthodox: They haven't been discovered.

Unorthodox: Evolution is not possible--they never existed.

Orthodox: They died out and didn't become fossils.

Unorthodox: God created each thing individually and there was no need for an intermediate stage.

Orthodox: The intermediate species were few and far between. They are around, but only in certain regions.

Unorthodox: There are no intermediate fossils. All animals were created in their natural unchanging state.

Some evolutionists have suggested that both rapid and slow evolution can occur and during the rapid evolutionary periods few fossils were produced. One student suggested a scenario like that: There could've been a sudden change and, therefore, there never were intermediate fossils. Had he been a university professor, he would have made that scenario sound scientific by calling it punctuated equilibria.

Generally, the students' reactions seem instinctively to be either the intermediates have not yet been discovered, which was Darwin's explanation one hundred and thirty years ago, or evolution has not occurred. Like all of the evidence, it is the belief system behind the explanation that determines what is valid and nothing else, which is why evolution data cannot be taught from the point of view of one belief system for all students. Have not Mill and the students proved that the belief that one can observe the present environment and thereby discover the past is a naive anachronism?

All of the information contained in this curriculum is legitimate knowledge. It is all knowledge that students have a right to know and should know, especially the uncommitted and the unbelievers of evolutionism. Those students have the right to be taught the critical thinking skills necessary to defend their belief systems.

I polled one hundred and fourteen sophomore biology students and asked them to vote anonymously on their preference on the following curriculum strategies.

I would prefer to be taught only the usual evolution explanations for the evidence.

I would prefer to be taught how alternative explanations can also account for the evidence and how some may cast doubt on evolutionary theory.

Twenty-four students preferred the first option, which is the religious proselytizing one. It is quite possible that some students voted for this option because it is easier than having to think up alternatives. Ninety students preferred the latter curriculum strategy, which is objective intellectualism. Although they were not asked to comment, one student thought it was "cool" that they could express their own opinions and ideas about the evidence. Another student who voted for the second option stated, "Most definitely, this is a lot more interesting and more according to the scientific method."

The issue is one of disparagement and discrimination. As in all cases of discrimination, the people responsible for discrimination have no empathy for the victims. In the case of the origins curriculum, evolutionists are imposing their belief system on others, not because the evidence is even remotely conclusive, but because they think it is superior to any other belief system.

Perhaps the only way to eliminate disparagement and discrimination in the origins curriculum is to establish a policy in which every item of evidence for evolutionary theory is systematically subjected to a proliferation of ideas, opinions and criticisms from every quarter. All students, no matter what they personally believe regarding origins, would then have an opportunity to hear or express an explanation for the evidence that fits their particular belief system. Should a minority of students want only the orthodox version of evolutionism taught to them, then make that type of course offering available.

SUMMARY

The Lady Who Was Born Yesterday

Once upon a time a Lady was born, or more precisely, she literally came into existence fully mature and in the prime of her life. One would think that coming into existence fully mature and with no past to which to relate would be traumatizing, but she accepted her fate with equanimity. In fact, she seemed to relish the idea that, unlike anyone else, she could make up her own past, a past that would suit her particular needs, although it would be make-believe, there was no one in the world who could say it was not true. One problem that she recognized was that she had no emotional past either. There was no memory of a father, mother, sister, or brother to whom she could relate. But she was determined to continue her make-believe past with a real, experienced past beginning from yesterday and that past would have emotional memories. Oh, she was a fearless lady.

The Lady also had the option to choose her own name. What name she chose to use is not important, we will continue to refer to her as the Lady. She had come into existence with an education, although to what degree she was educated she did not know. She knew that her bent of mind was toward the natural sciences. She was normal in every respect, having her share of what one might call native intelligence or common sense. She even had a religious instinct which surfaced almost immediately and paramount to that instinct was the question of the origin of her surroundings. It may seem a little strange, but not having a personal past bothered her not at all, but knowing the origin of the setting into which she appeared became a burning question. In fact, she could not get on with her new life until she came to terms with the question of origins. The phrase "born yesterday" is generally used to refer to someone who is not too sophisticated in his or her thinking. But in this case, because the Lady was born yesterday, she had an advantage that no one else in the whole world had to come to terms with the question of the origin of life. Her thinking had to be original because it was uncluttered with the ideas of others regarding origins. Her reasoning you might say was as unpolluted and pristine as the environment around her. You see, the year was 1865 and the place was England.

Soon she found herself walking down a road near the village of Down. Looking ahead and off to her right, she spotted a bearded man strolling along a sand path on his property near a large house. She walked over to him and introduced herself, and he introduced himself as Charles Darwin, Esq. During the course of their conversation, the Lady soon asked the question that was uppermost in her mind: "How might I discover how this wonderful environment came into existence?" Oh, she was a wise gal and not only wise but independent also. Notice she did not ask, "How did this wonderful environment come into existence?", but "How might I discover how this wonderful environment came into existence?" She did not want anyone to simply tell her how the environment came into existence; she wanted to know how she could discover it for herself. Darwin replied by asking "How do you think the environment came into existence?" She quickly responded, "That is just the point, I do not want to have preconceived ideas about how life originated. I want to discover inductively what happened." Darwin paused a moment then said, "Many years ago I went on a five year voyage to remote parts of the earth and discovered for all of humanity how life originated. I did not discover the origin of matter or the spark of life, but I did discover how the life around us came to have its present form." The Lady was delighted to have made the acquaintance of the eminent authority on origins. She asked, "How did you do it?" Darwin replied, "By carefully observing the environment." "Is that all there is to it?", she asked, with a hint of skepticism in her voice. "That's

all there is to it, except that one must collect specimens and take notes," Darwin replied. She then asked where he had traveled on his voyage and he described in detail the ports of call in South America, the Galapagos Islands, etc. The Lady thanked him profusely and announced that she was off to duplicate his voyage and discover the origin of life. Soon she arranged for the position of naturalist aboard the ship Golden Retriever. The ship was being sent out by the British government on another voyage of exploration and would make calls at many of the ports that Darwin mentioned. Oh, she was an enterprising gal.

After five long years, the Golden Retriever again returned to England. On board was a disappointed and dejected naturalist. The Lady had failed to discover the origin of life, although she had worked carefully and conscientiously. She had no choice but to return to Down and talk to Darwin. She again found him taking his daily afternoon walk on his sand path. After mutual greetings, she confessed with some embarrassment that she had failed in her quest to discover how life originated. Her observations had revealed possible clues but nothing definite; it was all kind of just there, period. She had observed a great deal of diversity among living things, but that was balanced by a great deal of similarities. She had observed geographics distribution of plants and animals, but its significance was a mystery. She went on to describe many other observations. Impatiently, Darwin interrupted and declared, "The environment is self generating. It creates its own life forms." The Lady responded, "But how could I have failed to observe this; how is it done?" "By natural selection or survival of the fittest," Darwin replied. "Exactly how does the mechanism work," asked the Lady. Darwin explained that there is competition for survival, that variations exist among species and those individuals with useful variations survive the competition, pass their traits on to their offspring and the result is gradual evolution. "It's all quite logical," he concluded. "Somehow I failed to observe natural selection," the Lady mused dejectedly. "I observed predation but the encounters seemed to be chance or the prey were the old and sickly, not variational differences," she went on. "Where were you when you observed natural selection and what did you see?" the Lady asked. Darwin paused then admitted that he hadn't actually observed natural selection. He then went on to say, "But you can imagine, for example, how giraffes came to have long necks. The giraffes with slightly longer necks would reach more food, while the slightly shorter necked giraffes would die out from starvation." By now the Lady's emotions were a mixture of anger and disillusionment with the expert before her. "But you did not even observe short necked giraffes living or dead?" she asked. "No, but you can imagine..." Darwin began. The Lady interrupted, "I told you that I do not want to indulge in any preconceived fabrications or speculations, I want the environment to reveal directly the secrets of its origins." Preserving his calm demeanor, Darwin said, "You seem to be forgetting something." "What is that?" the Lady asked. "Logic. The natural selection mechanism is elegant in its logic. It is not necessary to observe natural selection. The test is its universal appeal to logic. It fits like a mental glove--competition, variation, survival, change," answered Darwin.

As Darwin continued speaking, the Lady's eyes took on the distant look of one who is lost in thought. After awhile, Darwin paused a moment and one could tell by her looks that the Lady was struggling to bring her thoughts back to the person before her. Soon she said, "There seems to be a fatal flaw in your scenario." So, she had been listening and now we learn the cause of her distraction. She continued, "Your mechanism would have no bearing on incipient organs. The beginning stages of development of an organ would have no function and would, in fact, be a useless impediment. How can natural selection, for example, account for the first minute movement of the eye of flatfish to the opposite side of the head? In other words, if natural selection cannot account for the beginning stages of development of an organ, it cannot account for the origin of anything." Oh, she was sharp. She happened to hit upon a point of logic that would strain the credulity of anyone, even the man standing before her. Darwin stared at her for a long moment, then turning suddenly, he walked rapidly down the sand path to his house.*

Several weeks later the Lady attended a debate between creation scientists and evolution scientists at Cambridge University. During the questions from the audience segment, she could no longer contain herself and spoke as follows to the scientists: "Mother Nature is the subject of your study and you claim to be experts about her, yet you know her not at all. Mother Nature is secretive and she is coy and very accommodating. It is not in Mother Nature's nature to contradict anyone about her past. Her past is her own secret. She reveals just enough to appease anyone who wants her to have a past that is pleasing to them personally. You cannot even prove how Stonehedge and the Pyramids were built and numerous other lesser mysteries, so how can one explanation for the origin of the ecosystem remain unquestioned? It should be obvious that the one thing that you are proving beyond a shadow of a doubt is that there is no scientific method that will help you out of the dilemma. If a scientific method did exist that applies to the question of origins, it would have decided the issue in favor of one side or the other long

ago. The only part of Mother Nature's past that you can agree upon is her recent past that is documented by observations. Beyond that her past is what each individual wants to make of it. Rather than being concerned about Mother Nature's past, you should devote your talents to the more practical aspect of the welfare of her future."

She could have gone on, but suddenly she became sad and weary and soon left the debate. One would think that she would have gone on to become a productive member of society, but that was not to be. She disappeared quite suddenly and mysteriously. No one ever saw her again and those who had gotten to know her, missed her very much, for, as she knew she would, she had succeeded in creating an emotional past during her brief sojourn.

* In the 1872 edition of the Origin, which was the last edition, Darwin admits to the problem of incipient organs: "I have now considered enough, perhaps more than enough, of the cases selected with care by a skillful naturalist, to prove that natural selection is incompetent to account for the incipient stages of useful structures...."(8)

REFERENCES

- 1 Himmelfarb, G. Darwin and the Darwinian Revolution (London: Chatto and Windus, 1959) pp. 326-327.
- 2 Feyerabend, P. Against Method (London: Atlantic Highland: Humanities Press, 1975) p. 35.
- 3 Ibid., p. 68.
- 4 Broad, W. and Wade, N. Betrayers of the Truth (New York: Simon and Schuster) p. 138.
- 5 Feyerabend, Op. cit., p. 217.
- 6 Mill, J. On Liberty and Considerations on Representative Government (Oxford: Basil Blackwell, 1859)
- 7 Ward, H. Charles Darwin: The Man and His Warfare (Indianapolis: The Bobbs-Merrill Company, 1927) p. 288.
- 8 Darwin, C. On the Origin of Species (The Modern Library, 1872 edition) p. 178.