

## EDUCATIONAL COLUMN

## PROPERLY DEFINING "EVOLUTION"

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**Abstract**

*Creationists should set an example for scientists, students and other non-scientists by (a) differentiating "evolution" from genetic variational change by appropriately using the terms micro-evolution versus macro-evolution, and (b) avoiding any mixing of theism with supposed naturalistic concepts.*

**Introduction**

Among living things much variety as well as noticeable constancy is very evident to both casual observer and scholarly scientist. Even fossil plant and animal materials may be described as highly variable, but always within recognizable groups of flora and fauna. Commonly, any differences or changes in living things and fossil materials are referred to as examples of "evolution." What is the conscientiously fair and just manner of teaching about "evolution"?

The term "evolution" is placed in quotation marks since repeated ambiguity regarding change in living things, as well as fossils, is evident when the term is used by evolutionists and creationists. Charles Darwin's followers have long disregarded the necessity of careful definitions and stipulations of definite meaning with regard to change and the term "evolution."

In addition, evolutionists have regularly failed to differentiate between "historical" time spans (commonly understood to refer to activities of human beings) and "pre-historical" time periods before existence of any human beings. Evolutionists merely assume a basic identity between processes of change during the lifetime of an observer (historical), and presumed change processes in time long past (pre-historical). But human beings have made no observations or measurements in supposed geological time periods. Therefore, evolutionists should admit that so-called historical geology is a complete misnomer.

Also, quite often creationists employ the term "evolution" without making explicit the magnitude of change meant as specific referent for "evolution."

**Ambiguity Should Be Avoided**

All teachers and writers should work diligently to avoid ambiguity in their terminology. Evolutionists do not eliminate ambiguity in any significant manner when they maintain that "evolution" is any change in the genetic composition of a population of organisms over successive generations. Yet many evolutionists will recommend that limits of variation can be established by breeding tests.

Creationists, then, have the responsibility to delineate meanings for "evolution" so as to avoid ambiguities (i.e., semantic confusion) that can effectively influence student understanding during discussions of origin questions. This is paramountly important in the 20th century now that several generations of students have been "turned away" from the traditional creation concepts of first origins accepted by founders of modern science (Moore, 1983, pp. 55-58, especially footnote on p. 92). This applies particularly during discussions of

human origins since evolutionists have adopted a fully animalistic origin of man as the conventional wisdom to be taught in a monopolistically exclusive manner.

Creationists can contribute to delineation of meaning, if they will provide the very practical example of consistent use of the prefixes "micro-" and "macro-" every time they talk or write or teach about "evolution." If "evolution" has the connotation of change, then which change: 1) broad (or "vertical") such that easily recognized, totally new organisms come into existence; or 2) narrow (or "horizontal") such that only limited genetic variational change occurs within easily recognized groups of organisms?

Creationists who talk and teach about "evolution" should avoid ambiguity and associated semantic confusion by insisting that "macro-evolution" be distinguished from "micro-evolution." Initial distinctions are made easily by means of the following useful dichotomy:

Micro-evolution: real, tangible, concrete, historical  
Macro-evolution: imagined, intangible, abstract, pre-historical.

Therefore creationists can stand forthrightly for teaching this conclusion: Micro-evolution is documented and demonstrated (in accordance with breeding criteria); whereas macro-evolution is based totally upon circumstances of completely unexplained origin, even after decades of geological and genetic research. This conclusion must be explained.

**Macro-evolution versus Micro-evolution**

With regard to change associated with the term "evolution," I assert that practical and necessary clarification is gained by consistent use of macro-evolution versus micro-evolution. Micro-evolution is the most precise term as referent for real, limited, narrow, horizontal change *within* a recognizable group of living things; whereas macro-evolution is the most precise term as referent for imagined, unlimited, broad, vertical change *between* organisms from one level of complexity to another.

The word "imagined" is used deliberately in association with the concept of vertical change of macro-evolution since that concept is totally unobservable, at least with respect to any change in living things *from* one level of complexity of flora and fauna *to another* level of complexity. In contrast, horizontal change of micro-evolution is repeatably observable by investigators of present living plants and animals.

This matter might be expressed in a fully practical manner if speakers, writers, and teachers will utilize contrasting specifications about "evolution," as follows:

a. On the one hand, narrow or horizontal magnitude of change of *micro-evolution* has been repeatedly detected *within* any separate group of easily recog-

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nizable plant or animal. For example:

Within groups of cats, cattle, dogs, pigeons, swine (or apples, corn, roses, strawberries, wheat) breeding records document and demonstrate genetic variational (horizontal) change of micro-evolution.

Further, a definite historical time line is involved in accumulations of data over generations after generations of observed changes in living things. Therefore, narrow, horizontal, *micro-evolution* is real and tangible.

b. On the other hand, broad or vertical magnitude of change of *macro-evolution* has *not* been detected *between* separate groups of easily recognizable plants and animals. No known cross-breeding has ever occurred between fully separate groups of organisms. For example:

Proposed or supposed changes from unicellular organization to multicellular organization in living things have *not* been observed in breeding practices.

Further, such imagined changes as mammals coming from reptiles or birds from reptiles or human beings from some anthropoid group have never been observed. Thus vertical changes must be acknowledged as merely inferred ideas about pre-historical time, which are not at all documented by any testable means genetically. Therefore *macro-evolution* is *imagined* and supported only by evidence of circumstantial similarities of unexplained origin.

#### Comparative Studies Limited

Evolutionists must rely fully upon multiple sets of circumstantial similarities of genetic materials, anatomy, embryology, cell biology, geographic distribution, protein components, or even behavior. Notably evolutionists utilize extensive arguments from homology and comparative studies. However, creationists are duty bound to emphasize that such comparative studies do not include any attention to or explanation genetically of the *origin* of detected similarities.

Whether evolutionists imagine some gradual processes of change or suppose sudden, "quantum" jumps of change, all evolutionists claim that organisms more similar to each other must have been more closely related than organisms less similar to each other. Thus human beings and chimpanzees are presumed to be closely related because of the circumstances of similarities, but absolutely no genetic documentation exists.

Creationists, then, are duty bound to explain regularly that all comparative reasoning involves specifically this *basic* assumption: The *degree of relationship depends upon the degree of similarity*.

At least one leading evolutionist has admitted that this "simple assumption is the *logical* basis of efforts to reconstruct evolutionary history" (Ayala, 1978, p. 68) by means of comparative studies involving circumstances of similarities. (Emphasis added). Fortunately Dr. Ayala did not claim a *biological* basis because all such efforts to "reconstruct evolutionary history" are merely recitations of circumstantial evidence for a pattern of comparative reasoning that maybe plausible to an evolutionist, yet is not biologically demonstrable. This is so, since no genetically documented lineages of different groups of organisms are ever established by circumstantial evidence of similarities. No breeding tests establish any actual biological affinities between groups of recognizably different organisms.

#### Attention to Consequences

Creationists are duty bound to make fully explicit certain consequences of practiced use of ambiguous expressions about change and comparative reasoning. Perpetuation of ambiguous use of the term "evolution" because of repeated failure to employ the practical pre-fixes "micro-" and "macro-" leads to particular results. Too commonly there is an uncritical combination of theism with practical atheism, as well as uncritical "mixing" of supernatural concepts (creative acts of God) with supposed natural concepts (actually macro-evolution magnitude of change). Thus the contradictory, illogical combinations of "theistic evolution" and "progressive creationism" have been coined.

Proponents of "theistic evolution" or "progressive creationism" are basically macro-evolutionists. Initial support for this assertion is found in the grammatical structure of the terminology. Necessarily the word "theistic" must be recognized as an adjective descriptive of the noun "evolution."

Specifically, a "theistic evolutionist" or "progressive creationist" is one who desires, in some manner or degree, to "add" God to so-called naturalistic concepts, such as an explosion of some dense matter, or sudden and spontaneous appearance of living substance, or emergence of human beings from some animal ancestry.

Essentially belief in "theistic evolution" or "progressive creationism" is dependent upon atheistic evolution. In order for the evolutionist to have a position to which God, the Creator, may be added (in whatever manner or degree asserted), a definite preliminary acceptance of macro-evolution magnitude of change of supposed naturalistic phenomena is required. The "theistic evolutionist" or "progressive creationist," then, must first be an evolutionist, and secondarily make some personal selection of involvement of God, the Creator of all things.

Detailed discussion of this confusion of language and meaning is beyond the scope of this short article. Stated very briefly, belief in the supernatural is "mixed" with belief in supposed prehistoric, naturalistic phenomena by "theistic evolutionists" and "progressive creationists." As a result of mixing creative acts of Creator God with concepts of explosion, accidents, and chance combinations of matter much contradiction and inconsistent reasoning abounds. Consequently creationists have the very special responsibility to point out such uncritical acceptance (ignoring) of contradiction and inconsistent patterns of thought.

#### Conclusions

On the basis of all the above, creationists are heavily responsible to help scientists, students and other non-scientists recognize and avoid semantic confusion by differentiating "evolution" from genetic variation. This can be accomplished through regular use of micro-evolution *versus* macro-evolution by creationists. And clarification of language will be gained only by avoidance of contradiction and inconsistency that are consequential to efforts to "add" God, the Creator, to supposed naturalistic concepts, as attempted by "theistic evolutionists" and "progressive creationists."

### References

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## CORRECTLY REDEFINING DISTORTED SCIENCE: A MOST ESSENTIAL TASK

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### Abstract

*From a correct philosophically neutral definition of science the rules of the scientific method and the freedoms of scientists logically follow. Since Darwin's time the scientific community has distorted science by injecting into its definition a particular metaphysical belief system, i.e. materialistic monism. Thus science has been by definition biased against creation, with the result that "unbelievers" are denied their freedoms as scientists, teachers and students and are subjected to discrimination and injury. A reformation of science at the definitional level is an essential task for Christians engaged in science and education.*

### Introduction

For Christian participants in the scientific enterprise the creation-evolution controversy is surely an important concern. The monolithic evolutionary thought system currently monopolizing scientific activity must certainly be challenged. However, an even more fundamental issue with respect to science is the question of what a correct definition of science is, how science has been distorted, and how distorted science can be reformed. As long as a definition of science reigns which incorporates philosophical assumptions inimical to Biblical theism, the creation-evolution question in the scientific arena is of necessity predetermined against creation—by definition.

### Science Properly Defined

Science is simply a method by which fallible humans can examine the natural world and critically test all of their ideas about it. Sir Peter Medawar said a few years ago in a published interview, "There is nothing more to science than its method . . ." If Medawar is right—and he is—a correct definition of science is philosophically neutral at least to the extent that it has nothing to say about what a scientist believes or disbelieves. (Appendix I) A concise, philosophically neutral definition of science is as follows:

Science is human experience systematically extended (by intent, methodology and instrumentation) for the purpose of learning more about the natural world and for the critical empirical testing and possible falsification of all ideas about the natural world.

It is not the purpose of this discussion to analyze the scientific method, but rather to examine the implications of a correct definition of science and the deleterious effects of the currently prevailing distorted definition. Let us now consider the implications of the above concise definition.

### The Rules of the Scientific Method

The definition of science lays upon the scientist the requirement of obeying the rules of the scientific method. The basic rules of the scientific method flow logically from the definition of science and include the following:

1. Scientific hypotheses may incorporate only elements of the natural empirical world, and thus may contain no element of the supernatural.
2. Scientific hypotheses must be so constituted that they can be subjected to empirical test, that is, they must be falsifiable.
3. The scientist must submit his procedures, data and conclusions to critical review by his peers. Provided the scientist functions in accord with the above rules of the method, he has broad freedoms in his practice of science.

### The Freedoms of the Scientist

The freedoms of the scientist flow logically from a correct definition of science. They include the following:

1. The scientist is not required to hold to or reject any particular philosophical-religious belief system. He is free to choose from among such disparate beliefs as atheistic materialism, pantheism, agnosticism, Eastern religions, pure idealism, liberal Christianity, materialistic evolution, theistic evolution, and Biblical special creation.
2. Since peer review, therefore, may not have any element of philosophical bias with respect to the beliefs of scientists, scientists (and also teachers, students, and all scholars) have the freedom, indeed, the right to be judged solely on the basis of their performance under the rules of the method, not at all on the basis of a willingness to surrender their minds to somebody else's belief system, even to that of the majority of scientists.
3. All scientists need not function under the same philosophy of science and conceptual frameworks. These, but not the hypotheses of science, may encompass supernatural elements such as past divine intervention, special creation, or divine teleology in the natural order.
4. There is no restriction on the sources of ideas and hypotheses in science. Other scientists should have no concern about the source of ideas which gave rise to one person's hypothesis, if it deals with the reproducible empirical world and is open to empirical test by any critic or doubter.
5. A scientist is free to adopt or reject any of the following five assumptions which are held by many scientists and other scholars:

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