

STATEMENT OF OBJECTIVES
regarding
ORIGINS SCIENCE
[Defined terms Capitalized]

Article I -- Purpose

Explanations of the origin of the universe and of life and its diversity are scientifically controversial. They also engender cultural controversy because they unavoidably impact worldviews regarding Religion, ethics, morals, politics and government.

Due to its controversial nature, Origins Science¹ requires a scientific enterprise guided by scientific Objectivity rather than a preconceived view of origins, whether Materialistic or Teleological.

Government and public education Institutions supporting Origins Science should also also strive for Objectivity as they inform the public about the state of our scientific knowledge regarding origins.

Unfortunately, many Institutions of Science and government employ unyielding preconceptions that favor certain explanations of origins over others and thereby take sides in this important controversy. The establishment of an "orthodox" explanation of origins impairs good Science, restricts freedom, disturbs peace and offends laws requiring government to be religiously Neutral.

TO PROMOTE good Science, freedom, and First Amendment values, we urge that Origins Science be conducted and taught according to the Objectives stated in Article III, based on the premises in Article II and the definitions in Article IV.

Article II -- Premises

- A. Origins Science is an inherently subjective and controversial historical Science.** Because we have an incomplete Understanding of life and the universe, there is bound to be controversy about origins. Origins Science is also controversial because scientific descriptions of origins seek to explain the cause of a series of singular unobserved events that occurred in the remote past that are often not reproducible under laboratory conditions or susceptible to direct observation. Explanations often amount to subjective historical narratives constructed from circumstantial evidence and analysis using inference, imagination, unproved assumptions, and information that is not Intersubjectively Accessible.
- B. The adequacy of scientific explanations of origins depends on an analysis of competing possibilities.** Origins explanations use a form of abductive² reasoning that produces competing Historical Hypotheses, that lead to an inference to the best current explanation rather than to an explanation that is logically compelled by experimental confirmation. Due to inherent limitations on the experimental validation of Historical Hypotheses, testing requires rigorous competition between alternative hypotheses so that their relative strengths and plausibilities may be compared. While competition among multiple hypotheses decreases subjectivity, it may nevertheless result in no adequate current explanation.
- C. Implications of scientific explanations of origins unavoidably impact Religion, ethics, morality, government and politics.** The implications of materialistic explanations of origins support the central tenets of non-Theistic Religions, while the implications of Teleological explanations support the central tenets of Theistic Religions. Both Theistic and non-Theistic Religions and worldviews address questions of ethics, morality, government and politics.
- D. Institutional insistence for either a non-refutable materialistic or a Teleological assumption compromises the integrity of good Origins Science.** Non-refutable assumptions are counter to the inherent skepticism of Science. They frustrate a search for an inference to the best of multiple

competing explanations. These assumptions convert the protected explanation into an explanation designed to fit a preconception. The Institutionally protected explanation then becomes the prevailing orthodoxy or dogma rather than a scientific explanation open to question.

- E. A society's view of its origins will ultimately impact its social behavior and the values it places upon certain behaviors.** Institutional establishment of only one of two possible biases or assumptions with respect to origins can be expected to promote logically-consistent views regarding Religion, ethics, morality, government and politics. The implicit or explicit imposition of such views will offend many and restrict the freedom to embrace and promote alternative viewpoints.

Article III -- Objectives

- A. Institutions of Science should ignore religious and ethical implications of competing Historical Hypotheses and strive for objectivity in the conduct and teaching of Origins Science.**

Institutional objectivity may be achieved by encouraging healthy competition among scientists holding differing scientific views regarding origins, consistent with the Scientific Method.

- B. Scientific historical narratives of origins should be cautiously and tentatively stated due to constraints on their testing by direct observation and experimentation.** They should seek to show not only how the Data supports the narrative, but also how it rules out the competing possibilities. Explanations should identify key assumptions and their evidentiary basis. Narratives should not be excluded simply because they have materialistic or teleological implications.

- C. Institutions should permit, but not require, scientists and philosophers to develop Teleological origins hypotheses.** This requires an abandonment of Institutional dogmatic Methodological Naturalism as well as any form of Institutional dogmatic Teleology in Origins Science.

- D. All Institutions should seek to avoid job, academic, funding, publication or other forms of discrimination against scientists due to their professional or personal viewpoints regarding origins.** In particular, scientific journals not openly devoted to a particular origins perspective should not adopt explicit or implicit policies embracing a materialistic or Teleological bias that frustrates genuine scientific competition between the two perspectives.

- E. Public educational services and materials provided by Institutions of public education should be Secular, Neutral and Non-ideological.** Public Institutions, including the public media, should moderate biases as is expected of any Institution charged with a public trust. Educators should manage biases by Objectively studying materials developed by advocates on both sides of an origins issue.

- F. Institutions of public education should encourage teachers to Objectively inform students of relevant scientific knowledge important to an Understanding of Origins Science.** Teachers should not be subject to discrimination because of their individual or professional views regarding origins or because of good faith efforts to Objectively inform students regarding origins.

- G. K-12 public school Science teachers should be permitted to teach and discuss Intelligent Design or teleological challenges to materialistic origins narratives.** They should not be required to do so unless the teaching is supported by tested curriculum.

- H. Science teachers that teach Chemical and/or Darwinian Evolution should be required to do so in a manner that will enable students to Understand the claims that are made, the key assumptions associated with those claims and key relevant evidence that is both consistent and inconsistent with those claims.** Issues of relevance and materiality should be left to the discretion of the teacher, unless directed otherwise by the educational Institution.

- I. Textbooks and curricular materials used by public Institutions should strive to describe scientific knowledge of origins accurately, completely and Objectively.

Article IV -- Definitions

Chemical Evolution: The hypothesis that the appearance of life from non-living materials occurred via Material Causes alone.

Darwinian Evolution: A materialistic theory of the history of the diversification of organisms from common ancestors through a process of descent with modification. The theory postulates that evolutionary change is the result of Material Causes, driven primarily by random variation and Natural Selection.³

Data: Information that is intersubjectively accessible.

Evolution: Change over time; with respect to living organisms, the process by which life has diversified after it originated.⁴

Historical Hypothesis: An hypothesis that proposes an explanation for the direct cause of unobserved events and processes that occurred in the very remote past, that can not be duplicated under presently observable conditions and that are not amenable to experimental confirmation.

Institution: Any entity that has a public trust, including Institutions of Science and government.

Intelligent Cause: A cause attributable to a mind or some form of intelligence that can manipulate matter and energy for a purpose.

Intelligent Design: An hypothesis that some natural phenomena are best explained by reference to Intelligent Causes rather than to only Material Causes. As such, Intelligent Design is the scientific disagreement with, and the falsifying hypothesis for, the claims of Chemical and Darwinian Evolution that the apparent design of certain natural phenomena is just an illusion. Intelligent design can also be viewed as the Science of design detection applied to natural phenomena.

Intersubjectively Accessible: Accessible and comprehensible to a number of persons without dispute. For example information derived solely from imagination, telepathy, spiritual experience or hearsay may not be intersubjectively accessible.

Material Cause: A cause attributable to the properties of matter, energy and the forces of nature.

Methodological Naturalism: A method of Science premised on a refutable assumption that naturalism/materialism is true. Methodological naturalism becomes a dogma or *rule* when it requires all scientific explanations of origins to be premised on a *non*-refutable assumption that naturalism/materialism is true.

Naturalism/Materialism: A philosophical doctrine that Material Causes alone are adequate to account for all natural phenomena and that Teleological (design) conceptions of nature are invalid.

Natural Selection: The natural process in which the fittest in a population survive to pass on their heritable traits to subsequent generations while those less fit may die off leaving no offspring resulting in the termination of the traits of the less fit organism.⁵

Neutral and Non-Ideological: Not advocating for a single perspective on a controversial issue.

Non-Theistic Religion: Religions and belief systems that presuppose that no God intervenes in the natural world and that Material Causes, such as unguided evolutionary change, are adequate to explain natural phenomena. Non-Theistic Religions include Atheism, Secular Humanism, and Scientism, as well as some forms of Buddhism and other eastern Religions.

Objective: Not influenced by personal bias or prejudice; based on facts. An Objective position is one that is Secular, Neutral, and Non-ideological.

Origins Science: Scientific inquiry about biological and cosmological origins.

Religion: A broad range of theistic and non-Theistic Religions and religious belief systems.

Science: A systematic search for knowledge and Understanding about the natural world generally conducted in accordance with the Scientific Method.⁶ Science is skeptical rather than dogmatic and seeks Objective rather than subjective explanations.

Scientific Method: The principles and procedures used in the systematic pursuit of Intersubjectively Accessible knowledge, and involving as necessary procedures: (1) the recognition and formulation of a problem; (2) the collection of data through observation and, if possible, experiment; (3) the formulation of hypotheses; and, (4) the testing and confirmation of the hypotheses formulated.⁷

Secular: Not advocating or opposing any particular religious views or beliefs.

Teleological: Exhibiting or relating to design or purpose, especially in nature.⁸

Theistic Religion: Religions and belief systems which presuppose that a God or Gods intervene in the natural world by creating and making natural phenomena for a purpose. Theistic Religions include traditional forms of Christianity, Judaism and Islam, as well as certain forms of Hinduism. Theistic Religions presuppose an Intelligent Cause for the origin of life and its diversity.

Understand: To be familiar with and apprehend clearly the character, nature, or subtleties of a particular subject.

The undersigned generally endorse the foregoing statements.

¹ Capitalized Terms reflect terms defined in Article IV.

² Abduction, or abductive reasoning, is the process of reasoning to the best explanations. In other words, it is the reasoning process that starts from a set of facts and derives their most likely explanations. See, Wikipedia, http://en.wikipedia.org/wiki/Abductive_reasoning

³ Thirty-eight Nobel Laureates, “Nobel Laureates Initiative” (The Elie Wiesel Foundation for Humanity, September 9, 2005), stressing to Kansas State Board of Education: “[E]volution is understood to be the result of an unguided, unplanned process of random variation and natural selection.”

⁴ See, Ernst Mayr, *What Evolution Is*, (Basic Books, 2001), p. 286.

⁵ See, also, Ernst Mayr, *What Evolution Is*, (Basic Books, 2001), p. 288, “The process by which in every generation individuals of lower fitness are removed from the population.

⁶ See, e.g., Webster’s Third New International Dictionary of the English Language, 1993; and *Daubert vs. Merrell Dow Pharmaceuticals, Inc.*, 509 US 579, 590 (1993).

⁷ See, e.g., Webster’s Third New International Dictionary of the English Language, 1993.

⁸ See, Merriam-Webster Online.