

Editor The Transcript,

The Deception Institute Strikes Again.

The Discovery Institute (DI, a creationist think-tank) has produced an anti-science film entitled "Metamorphosis" which was shown in a public screening Sept. 19 in Norman. The film showed that butterflies are beautiful, complex and generally amazing. Near the end it tried to convince viewers that butterflies could not have evolved but rather were designed and created by some intelligent entity. Following are some observations on the scientific inadequacy of this argument.

If the DI has scientifically valid ideas, why don't they play by the rules of science. Popular movies such as this completely bypass any scientific merit review process. Real science is vetted in the peer review system of scientific journals.

The movie's "compelling proof" for design is based on an argument from incredulity; to paraphrase, 'I just cannot believe that such beautiful and complex creatures could have arisen by chance alone, therefore they must have been designed'. Being too amazing to believe is not compelling proof; it is not even a scientific argument. They also made a number of arguments from authority. We were simply told that the process that produced butterflies must have had foresight, could visualize complexity, and is indistinguishable from intelligence. We were also told that butterfly metamorphosis takes a miracle. These claims are simply personal opinions that are not scientifically justifiable, no matter who says them.

The DI's presentation in this film also plays to so-called 'God of the gaps' arguments. Such arguments focus on areas where knowledge is currently limited to invoke a putative supernatural agent. Evolution explains every biological structure or process for which we have a thorough understanding. If we do not yet understand a particular phenomenon it does not falsify the generality of evolution, it just means we have more to learn about that phenomenon. To assume that things not currently known are unknowable and must be explained by magic or miracles, is to completely abandon the best tool we have for filling gaps in our knowledge - science.

The main argument for design focused on butterfly metamorphosis, yet curiously, no scientists who are actively working and publishing on mechanisms of insect metamorphosis were included in the movie. The movie did feature several scientists (some with impressive credentials) who described the marvels of butterfly biology. While this lends a scientific pretense to the movie, we never see these scientists actually mention design. The entire design argument is made exclusively by two DI associates. This is a clever pseudo-scientific bait and switch. It is also suspicious given the widely known fact that in the last DI movie on the Cambrian diversification, they deliberately misrepresented the views of a featured scientist (Dr. James Valentine) against his wishes. Moreover, the DI repeatedly mischaracterizes evolution. For example, evolution by natural selection is a distinctly non-random process but it is frequently mischaracterized by design

proponents as random chance. The movie repeatedly made unsupported (and false) assertions that particular biological phenomena (such as programmed cell death, or animal migrations) are a fatal problem for natural selection. The point is that good science is based on evidence and does not rely on deception or tricky movie editing.

Does design provide any mechanism for or new insights on the origin of biological diversity, or even on butterfly metamorphosis? No. Simply invoking design does not actually explain how anything works and tells us nothing about how biological phenomena originated. The notion of design provides no testable hypotheses or predictions that can be investigated. It is a scientific dead end. Design is a non-explanation.

Did they provide any positive evidence specifically supporting design? No, all we have is their incredulity and dubious authority. Would it even be possible to test the idea of design via the methods of science? No. The notion of a designer is not falsifiable and no working scientific method of testing for the existence of design in biology has ever been proposed. The supernatural, by definition, falls outside the realm that may be investigated by science. Design is simply not science.

Nature is wonderful and still holds many mysteries, but that does not mean we need to suspend rationality in favor of mysticism. The DI folks will have to do more than just make pretty movies and play politics with school boards and state legislatures. *They will have to formulate falsifiable hypotheses with testable predictions, conduct experiments, show us the evidence, expose these to independent verification, and publish in real scientific journals.* Until they can do this, intelligent design will remain in the realm of astrology or crystal balls. We'll stick with science.

Richard Broughton  
Ola Fincke  
Kenneth Hobson  
Victor Hutchison  
Ari Berkowitz  
Rosemary Knapp  
Michael Kaspari  
Cecil Lewis  
J.P. Masly  
Douglas Mock  
Thomas Ray  
Ingo Schlupp  
Frank Sonleitner  
Bing Zhang

Norman  
(OU science faculty)