

Theory of Intelligent Design

Richard: I decided my thesis on the nature of truth is incomplete without a discussion of Intelligent Design theory, popularized so well by biochemist Michael Behe in "Darwin's Black Box". Let us start our debate on intelligent design with a quote from my favorite genius, Albert Einstein:

"I believe in Spinoza's God who reveals himself in the orderly harmony of what exists, not in a God who concerns himself with fates and actions of human beings." (Upon being asked if he believed in God by Rabbi Herbert Goldstein of the Institutional Synagogue, New York, April 24, 1921, /Einstein: The Life and Times/, Ronald W. Clark, Page 502.)

Therefore, my question is, did Einstein and Spinoza believe in an Intelligent Designer?

Daniel: It seems they discovered how to make a creationist theory from a scientific one. Simply add the phrase "and it is all directed by God" to the theory. Then the predictions of the theory remain the same, and the added phrase cannot be tested independently. The new theory can be tested the same way that the original (scientific) theory can be tested. One might try this with gravity. Assert a new theory of gravitation that says that there is an attractive force between two objects proportional to the mass of either; inversely proportional to the square of the distance between them, and that the force is instilled by the presence of God.

This theory certainly seems to be in accordance with experiment because the added phrase changes no predictions of the theory. The error comes in not letting me separate the added phrase from the rest of the theory. Popper's whole point is that the added phrase, by itself, is not scientific, for it is not falsifiable.

Bruce: Spinoza's God was the sum total of all intelligence in the universe, as I guess he hadn't yet thought of multiple universes. His argument notes that an ant has intelligence, a colony of ants has more, the ant colony and the surrounding environment has still more, as does the island, continent, planet, universe, etc. In his mind, the combined total of all intelligence must be God. This would seem to be a rather diverse creature to hang whiskers on, or to sit at the right hand of. So, Einstein's reference would seem to be of little comfort to those who would pose a God, or Gods of anything other than worship of the infinite. The opinion of Einstein, or any other being, would seem beside the point, as finite contemplating infinite always comes out zero.

The argument from design is circular, and consequently meaningless. The argument presupposes a magic creator that was not him (or her or it) self-created. It was agreed on when the question was posed that evidence of design and therefore creation would stop and all further thinking cease at the destination of "God." If the universe had a "creator," the "creator," being even more complicated, must also have a creator. Etc.to infinity.

Richard: The argument from design is not really circular. The argument hinges on the mousetrap analogy in that there are biochemical systems such as vision and the amoebae's flagella in which if one component is lacking, function is lost entirely, and therefore evolution cannot occur. (Re: Michael Behe.) See the details of the 50 proteins that make the flagellum work as a nano-motor. I have yet to hear a logical empirically-based counter to this theory.

Bruce: I had always thought the argument circular, as it took mankind to invent or create God, who created man, etc. I think that all systems would be something else, by definition, if any one component is changed. Evolution is a common occurrence, as in the case of antibiotic resistant strains of bacteria, DDT resistant insects and many others.

Once we have biological entities as they now exist, evolution is

obvious. They are designed to adapt. The real question here is how did it start? God is obviously more complicated than an amoeba's flagellum. God therefore must have a designer. This designer must be more even more complicated than the first god and must have an even more complicated designer, - - - ad infinitum.

I might pose another question. Can there ever be a scientific proof of anything (gods in this case) that cannot be seen, heard, studied, influenced, described, and has no measurable physical influence on anything we know.

If there were a proof, we wouldn't need faith, as we would have knowledge. Science requires knowledge. Faith requires faith, which I understand is highly esteemed in even formal religious circles.

Greg: A "God who reveals" has a Will. One who has a "himself" is a Personality. One whose revelation takes the form of "what exists" either Creates if "his" creation seems "orderly and harmonic", we'd call it "intelligent design".

So yes, I'm afraid even Einstein, when cornered, caved in and made a statement with no scientific basis whatsoever to please his listener(s). But since he clearly doesn't want any of this hogwash to get in the way of how he lives and works, he further claims that an omnipotent being whose Mind conceives and creates everything for revelatory purposes is not concerned with his personal morals or intellectual integrity.

Isn't it amazing how forceful some memes can be!

This quote just indicates that Einstein had trouble thinking straight on this subject, and caved in to rhetoric that would please and disarm his interrogator.

Einstein was a physicist, not a biologist. This quote seems to be about morals and spirituality, not about evolutionary biology. Wouldn't it be more relevant to ask whether G.W.Bush believes in Armageddon as detailed in the Bible, and whether he thinks the U.S. appears as a character in that allegorical tale?

Richard: Thanks for the forceful reply. For the record, would you explain what you mean by "meme"? In regard to Einstein's occupation, if Spinoza's Pantheism is the correct model, would not any intellectual endeavor, including the design of all that exists? Maybe we can please the Fates up there with our verbal algebra and hold off Armageddon. It occurs to me that we both have just committed a venial sin; you for using the rhetorical ruse of argumentum ad hominem wherein you imagined Einstein's motivations, and I for enjoying the poetry of your rhetoric. As happens so often in debates, we forget to be scientists and we descend to the depths of our emotional midbrains where our animal ancestors lie awaiting to maim and kill the enemy. So we need to be penitent and to discuss the real issue as to whether there is evidence of an intelligent designer in the universe. I thought you would enjoy the Catholic verbiage here, that is, if it doesn't give you a seizure

Rebecca: Dad, your first question was ad hominem. You asked whether Einstein believed in a supreme being. You didn't ask what the arguments for or against it are.

Richard: my question about Spinoza and Einstein sounds ad hominem but actually is a device to elicit the underlying logic for their assertions. Thus your re-statement: "So, the question should be, what is the evidence for a supreme being (or intelligent designer, or creator, or whatever you want to call "God" in the context of this debate)? Why should anyone believe in it?" is a cogent question. Meanwhile, I am inspired by the fact that the greatest intellect of the 20th century said what he said and by the nagging thought that logic impelled him to conclude there is a Designer, if that is what he meant?

Rebecca: I think that what Einstein says he believed or didn't believe is not relevant to a truly scientific debate about intelligent design. Otherwise you will just have a debate about which of the proponents of each side are the smartest, or most scientifically minded, or most likely to be right.

So, the question should be, what is the evidence for a supreme being (or intelligent designer, or creator, or whatever you want to call "God" in the context of this debate)? Why should anyone believe in it?

Paul: My impression has always been that Einstein thought the way to see what God was thinking was to look at the fundamental laws of physics - instead of, for example, biology. But then I haven't read almost anything of what he wrote. Maybe it's time to do some reading...all of his papers are going online:

Richard: The following seems to rebut the Intelligent Design theory: Paul, since you are in molecular physics, please comment on the following article.

“Symbiotic/endosymbiotic/exogenous models: *These argue some version of the idea that the cilium evolved from a symbiotic spirochete that attached to a primitive eukaryote or archaeobacterium.*”

“The only real point in favor of the symbiotic hypothesis is that there apparently actually are eukaryotes that use symbiotic spirochetes as their motility organelles (only [inside termite guts](#), though, as far as I know). While this is a flabbergasting example of co-option and the creativity and flexibility of biological systems, none of the proposed homologies that have been reported between cilia and spirochetes (e.g. Bermudes *et al.* 1987; Barth *et al.* 1991) have stood up to further scrutiny (e.g. Bermudes *et al.* 1994, Munson *et al.* 1993). The homology of tubulin to the bacterial replication/cytoskeletal protein FtsZ (see "Some web references on FtsZ-tubulin", below) would seem to clinch the case against Margulis, as FtsZ is apparently found native in archaeobacteria (e.g. see Faguy and Doolittle, 1998), providing an endogenous ancestor to tubulin (as opposed to Margulis' hypothesis, that an archaeobacterium acquired tubulin from a symbiotic spirochete -- see Margulis *et al.*, 2000 for the latest version).

“ http://meta.wikipedia.org/wiki/Evolution_of_the_Flagellum ”

Paul: The article has a nice description of the various simpler things that the bacterial flagellum could have evolved from, so yes, it does beat the intelligent design argument.

The real interesting thing to think about is what the first living thing might have been. Was it very simple runaway chemical reactions that gradually evolved into cellular life or did it involve the very unlikely random creation of a fairly complicated system that could replicate? We have no way of knowing how long it takes a planet on average to accidentally develop life because we only have one data point, and it's very biased.