

## Truth Rears its Ugly Head in Virginia

Written by James Randi

Sunday, 14 December 2008 00:00

---

Brandon Creasy, a 16-year-old junior student in Franklin County, Virginia, at the Leonard A. Gereau Center for Applied Technology and Career Exploration, claims that an opinion piece he wrote backing the theory of evolution is being censored by the school's principal, Kevin Bezy. The student believes that Bezy had problems with the piece because he doesn't believe in evolution. Apparently, the principal felt that there was a potential for community backlash, something that any elected official must fear, regardless of the principles involved - pun fully intended.

This was an opinion piece, not a sermon nor a news article, and young Creasy says that he has no plans to revise what he wrote. He will resubmit it as is. SWIFT offers here the complete article; we'd like to hear from readers what they think of Brandon's effort. It reads:

By Brandon Creasy

Evolution is a genetically based change from generation to generation. If and only if you look exactly the same as both your parents and they look exactly the same as your grandparents and so on back to the beginning of life can you say that evolution has not occurred.

Since I assume you are an organism born on this planet, and that you are a human being, rather than some clone, I assume you do not look exactly like both your parents and that they do not look exactly like their parents, and that the differences are, at least in part, genetically based. Therefore, within your own family, evolution has occurred. You have seen evolution. Evolution is a fact folks, not a theory!

How long evolution has occurred, under what circumstances, and what drives it are theories. Evolution is not the theory. How life has been shaped by evolution is the theory. When a scientist says "the theory of evolution", it's not the "theory that evolution occurred," it's the "theory of how evolution occurred" that's being spoken of.

Even so, a scientific theory is a bit different than "I think the moon is made of cheese." A scientific theory must be 1) falsifiable and 2) not disproved after some investigation.

## Truth Rears its Ugly Head in Virginia

Written by James Randi

Sunday, 14 December 2008 00:00

---

Falsifiability means that you can disprove it without resorting to supernatural phenomenon. Show me a way to disprove that some god (any god) created the world, that could be done through natural investigation, and I'll say it meets one of the criteria. I haven't seen such a way even offered yet.

So far, the theory of evolution by means of natural selection (which was Charles Darwin's theory) has been shown to be the best explanation for the path evolution has taken life. And much of what Darwin and Wallace wrote about in their early work has been found to be incorrect, but the basic premise that evolution occurs through natural selection has not been disproved.

The theory of natural selection says that organisms which do better in a particular environment will pass that ability to do better on to their offspring, and that those offspring will be more numerous than the offspring of organisms that fared poorly (at its most basic, really all it says is that "under natural conditions" the healthy leave more descendants than the unhealthy). So far, all evidence suggests this is true.

Can the effects of natural selection be seen? YES they can be seen. For instance, look in any major magazine or watch the evening news, and you'll see stories about disease-causing bacteria becoming resistant to antibiotics. Those disease organisms are undergoing natural selection and evolving toward resistance.

Another rather too common misconception is that evolution and natural selection are random. There is nothing random about either. Once life started down a path, it had to follow that path. You're not going to have children that sprout wings. THAT would be random (and awesome), because you don't have the capability of passing that characteristic on to your children (maybe in a few hundred generations....).

Mutation is somewhat random - but is strongly constrained by the ability to survive (an organism with a random mutation that leaves off the head of an organism, isn't going to live long enough to reproduce, which is a VERY strong constraint) as well as by what genes it has to work with (you CAN'T make feathers from fur in one mutation, too much has to change in physiology and anatomy to make them).

## Truth Rears its Ugly Head in Virginia

Written by James Randi

Sunday, 14 December 2008 00:00

---

Within those limits, our children have to look something like us. They will be genetically different, but they must be similar. Each generation will be somewhat different than its parents, but it will be different. Add up those changes - not random changes, but small changes, directed by natural selection.

There may be a few errors in here, if you look hard enough, but 16 years of life do not a scientist make, though I think this man has the necessary DNA, genes, and determination, to shape up in that way. We'll see. Meanwhile, the creationists are once more all a-flutter. Truth is, after all, a fearsome thing when you're wrong, and you're faced with it. And I wonder what sort of "Applied Technology" and "Career Exploration" are being taught the students at Brandon's school? Maybe nothing more controversial than making salads and placing a want ad?