Subject: Re: Church of FSM
Posted by NeoSaber on Mon, 31 Oct 2005 07:02:02 GMT
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Yeah, let's go back to that quote for a sec...

Crimson wrote on Sun, 23 October 2005 20:19(emphasis mine)
"Mark Thomas"It's important to remember that the term "theory" in science is not the same as it is in general usage. A scientific theory is a unifying concept that explains a large body of data. It is a hypothesis that has withstood the test of time and the challenge of opposing views. The Theory of Evolution is the basic unifying concept of biology. The CEO of The American Association for the Advancement of Science, Alan Leshner, wrote, "Although scientists may debate details of the mechanisms of evolution, there is no argument among scientists as to whether evolution is taking place." The National Academy of Sciences, the nation's most prestigious scientific organization, has declared evolution "one of the strongest and most useful scientific theories we have," and notes that evolution is supported by an overwhelming scientific consensus. The Theory of Evolution has as much validity as the theory of gravity, atomic theory, or the germ theory of disease.

Your quote generalizes the most important part of a theory in order to ignore its true definition. A theory requires experimentation. Its not a hypothesis that withstood the test of time, its a hypothesis that withstood the test of science.

It doesn't matter whether or not scientists agree on something, it matters whether or not science itself, the experimentally verified data, agrees on something. 'Piltdown Man' was a huge hoax that lasted for decades because scientists only 'tested' the bones with their hypothesis that a human ancestor would look like that. There was no argument among scientists that its was the 'missing link' and other real discoveries were ignored because they didn't fit the preconceived 'theory'. When someone actually bothered to do a real test, it was shown to be an obvious forgery. One that should never have been allowed to happen. These days man made global warming is starting to get passed off as a theory because 'everyone agrees'.

When it comes to evolution, finding fossils is observation, and explaining them is hypothesis. Finding more fossils is more observation. Predicting finding fossils is predicting observation. What is the scientific test used to determine that the fossils are actually what people think they are? What is used to test the fossil to show it is an earlier/later evolutionary stage of an animal in question?

When they've come up with real tests for bones, the hypothesis that led to the tests have, at times, been falsified. Neanderthals were once considered evolutionary ancestors of humans. This was based solely on the way their remains looked. When science reached the point that these remains could be genetically tested, it was discovered they are not human ancestors. Their DNA was too different from ours. The hypothesis based on the 'look' of the bones was wrong. This only happened a few years ago. How can evolution be a hypothesis that withstood the 'test of time' if its ideas get thrown out the window, in present day, when real scientific testing is done? The fossil record can't be used as evidence for a theory. It only supports a hypothesis.

Then there's "Natural Selection", the one idea of Darwin's that has actually withstood to this day.

Natural selection comes after evolution, to kill off the weak and let the strong, or better adapted, survive. Evolution has to already have occurred for natural selection to be effective, and any idea on where animals come from can incorporate this. If animals were all artificially assembled in an alien lab and then placed on earth, natural selection would still occur. All natural selection does for evolution is not outright dismiss the concept.

Theories on gravity and atoms are actually experimentally tested and verified through those tests, that's how they became real theories. (Interesting side note: theories on gravity, aka General Relativity, and theories on atoms, aka Quantum Physics, actually contradict each other and claim the other is impossible, yet both are accurate about their subject). Experiments with light particles and super colliders are used in atomic theory. Experiments with space travel are used in gravitational theories.

A scientific theory must be falsifiable. There has to be a repeatable test that can be done that will show it's right. A theory must have these tests or it's simply a belief and might as well be classified as philosophy.
