

Confronting Creationism

Defending science against superstition is a full-time job



Richard Saunders, when he is not investigating mysteries and making videos, is President of the NSW Skeptics

Professor Eugenie C. Scott has dedicated her life to battling the creationism movement, especially the push to have a creationist point of view taught as science in US public schools. I first meet Eugenie in October 2004 at the Berkeley public library when she, as part of the Bay Area Skeptics, hosted my talk entitled "And You Thought The Duck-billed Platypus Was Strange!" in which I gave an overview of some of the Australian paranormal investigations, of which regular readers of *the Skeptic* are well aware. At the time I asked Eugenie if I might interview her for the journal.

Eugenie is based in an office in 'The National Center for Science Education' located in Oakland, California and it was there I went to conduct the interview.

RS: *Are the creationists making a mark in the science text books?*

ES: Actually it's more subtle than that. We don't have creationism in the text books. What we have to watch out for is efforts to weaken the presentation of evolution in the text books, to water it down, disclaim it, present it

inaccurately, present it as a weak theory that has been challenged by these new observations they keep bringing up.

We have a T-Shirt with Darwin on the front and on the back the 1st amendment of the US constitution which says:

Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the Government for a redress of grievances.

This means that the government schools have to be rigorously neutral. You cannot promote religion in the schools and you cannot denigrate religion in the schools and that's the way it should be. If you are promoting biblical creationism, you're violating the 1st amendment and this is the grounds that we on our side of things have been using to challenge the fundamentalists for the last 30 years.

RS: *It's a pity that you have to use this tactic instead of using the science of the argument.*

ES: Yes. The good news is that the scientific and the education communities are solidly behind the teaching of evolution and there is no wavering whatsoever. The problem is that in the United States we have unusually high degree of decentralisation in the education system. There is no national curriculum as each state has its own, but even these are not obligatory. The big

decisions about what is taught and who is hired are made at the local level. The district sets the curriculum and can leave evolution out if they want. So even if the teachers want to teach evolution, if there is a lot of pressure at the local level from parents, then evolution just won't be taught.

RS: *Are there people who are fooled by the use of the word 'science' in 'Creation Science'?*

ES: It can be used as an excuse. We are following one case at the moment in northern California, where a geology teacher told her class that there are two scientific theories for the age of the Earth. One is that the Earth is billions of years old and the other that Earth is 6000 years old. Not that one is a religious view at all — but that they are both scientific views.

RS: *Are the creationists a unified force?*

ES: There are two types of creationists. One is the traditional 'Young Earth Creationists' like Answers In Genesis, Ken Ham etc, who believe that everything was created about 10,000 years ago by God and that there was a great flood. They are the largest group, very well funded, and



The author in California with Phil Plait and Eugenie Scott

have been around a long time. They, however, have had major losses in the courts and are now no longer trying as hard to get creationism taught in the schools. What they *are* doing is trying to stop evolution being taught. Basically they repackage their creation arguments and call it 'Evidence Against Evolution'. If you ask them what they call evidence against evolution they use the same old, 'gaps in the fossil record', 'the second law of thermodynamics', same old same old.

The second group is 'Intelligent Design'. They are far more clever as they have learnt that they cannot make it obvious that they believe that 'God did it'. If you have creation science then you must have a creator and therefore advocate a religious point of view and that's failed in the courts. What the Intelligent Design people do is not to claim any agent. They say that they are agnostic about the agent, that's not important. They say that there are some things in nature that cannot be explained by a natural cause. Therefore (*whispers*) a supernatural cause!

So this is a much subtler form of creationism, you have to dig down several layers before you see that this is special creation. They have been much more successful lately.

RS: *How do they get on with the more traditional creationists?*

ES: It's an uneasy relationship. It's sort of like 'the enemy of my enemy is my friend'. Answers In Genesis has a page on their web site that criticises the Intelligent Design people for being 'insouciantly Biblical'. The creation science folks are miffed that the ID people are not bringing the argument back to the Bible. At the same

time, the ID people like to keep the creation science people at arm's length, as they know they don't have any credibility in the academic or science community. The ID people get apoplectic if you call them creationists. But in the end they both believe in special creation.

RS: *So ID is a masquerade?*

ES: That's right. Although the ID movement is the bigger circle so to speak and the creation science is really a sub-section of that. There are supporters of ID who are not Young Earth creationists nevertheless they are serious, they believe they have got good science, they haven't convinced the rest of us yet. Their science is awful!

RS: *How are you treated by these two groups?*

ES: I get on quite well with the creation science people, but have a more testy relationship with the ID people. I do work hard to keep it civil. I do not feel very kindly towards Jonathan Wells, who is very well trained in evolutionary biology. I know the people he took courses from; he got a PhD from the University of California, Berkeley,

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in cellular molecular biology. I know he understands this material. In my opinion, he is misusing the education that he received to deliberately leave out aspects of the explanation to mislead people. I cannot respect that.

RS: *Do you know of a creationist who has come to the conclusion that it's just plain wrong?*

ES: Yes. There are some very poignant stories. One man, a former Young Earth creationist who is one of the few people for whom understanding the scientific evidence was sufficient to convince him that the world is very old. However he is still a creationist, in the sense that he believes God created everything.

RS: *There is a feeling in Australia that in order to gain more support for our side, we should seek more support from mainstream churches. Is that the feeling here?*

ES: Absolutely. When I was a college professor in Lexington, Kentucky, I was involved in a controversy when a local group, 'The citizens for balanced teaching of origins' came to our school board and ask that creation science be taught. Needless to say that 'up with this we would not put!' We formed a coalition with the local clergy who did not want biblical literacy taught in science class. It was extremely valu-

able to have this kind of support. They showed that it was not a case of 'science vs religion'.

RS: *How is the near future looking for your centre?*

ES: We are running as hard as we can to stay in the same place. But you know, we put out a hell of a lot of brush fires. Ultimately this is all about education. What is science, what is evolution — there is so much misunderstanding out there. There is misunderstanding that you have to choose between science and religion.

RS: *What about the longer term? Do you think with the rapid growth of scientific understanding that these creation groups will still be going strong in 20 - 30 years?*

ES: It's not a question of scientific education, it's a question of religion. This will never be solved by throwing science at it. People need to think they are not losing anything by rejecting creationism. People of faith feel very strongly that if they accept evolution they have to give up religion, then forget it... it's not going to happen, they won't do that. This is one reason we try to work with the moderate and mainstream religions. A lot of folks out there in the mainstream churches still don't know that evolution is OK.

RS: *Does the scientific community take you for granted? "It's all OK, we'll let Eugenie handle it?"*

ES: That was the case about ten years ago. We now have this division of labour, so to speak. We do the grass roots but the larger scientific groups can publish to a great extent with book reviews etc. We found out that the ID people were going to be presenting a briefing to the Congress in Washington, to a science committee. This was a real jaw-dropper. We notified the members of the big science associations in Washington and they were able, at very short notice, to get someone in there to take notes. These notes were sent out to everybody! It was a wake-up call. 'The ID people are talking to Congress!' WHAT? So it's a good collaboration with us doing a lot of the ground work.

RS: *Thank you Eugenie.*

I left Eugenie with several copies of the *Great Skeptic CD2* as it contains many articles and books on creationism from an Australian point of view.

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