## David Suzuki's Nonsensical Science

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In a recent opinion piece in my local newspaper, David Suzuki attacked a segment of society that believes that God created the heavens and earth. The piece entitled "Religious right's rejection of science is baffling" appeared in the *Saanich News* on March 30, 2012, but it likely appeared in many other newspapers across Canada and many other places as well. In it, Suzuki claims he is baffled that U.S. scientists aligned with the 'religious right' – meaning Christian scientists – reject evolution. And, maybe worse, he claims they reject the fact that humans are responsible for catastrophic global warming, which is inevitable unless we eliminate fossil fuel use immediately.

Suzuki says it is ridiculous to deny evolution and accept that the earth is only 6,000 years old. Is that what creationists believe? Some young-earth creationists might believe this, but many creations have a different view. What is interesting and most relevant for the discussion here is that there is a healthy debate among creationists as to the mechanism God used during creation. For example, did God rely on micro-evolution? This debate is anything but unscientific!

There are thousands of Christian scientists, yes scientists, and many non-Christian scientists as well, who believe that the universe was created. <u>Francis Collins</u>, who headed the Human Genome Project, and the prominent computational and theoretical chemist <u>Henry F. Schaefer</u>, are two modern scientists who have expressed their views in this regard. A <u>list of some of history's most prominent scientists who believed in a created universe</u> includes Albert Enstein, who recognized the impossibility of a non-created universe although he never expressed belief in a personal God. In his book *Science and Christianity: Conflict or Coherence?* (The Apollos Trust, 2003, p.135), Schaefer also provides a list of prominent past and current Christian scientists. Physicists still invoke the existence of 'God' to explain gaps in their theories; they would like not to, but ...

Any serious scientist must at some time in his or her life confront the question of origins: Is it easier to believe in a Creator or in the theory that everything materialized out of nothing? Which is the more scientific point of view?

When it comes to climate change, Suzuki recites the well known mantras: the science is settled, those who oppose the dominant view are funded by the powerful fossil fuel lobby, et cetera. By now I am sick and tired of this well-worn mantra. Funding for climate change research comes

almost exclusively from government, particularly the U.S. government. The U.S. government contributes billions of dollars annually to climate change research – research that supports the view that humans are responsible for global warming. Research concluding that humans may not be the culprit is generally unfunded, supported by paltry sums from various sources (including the fossil fuel industry), or supported inadvertently from the government trough. For the most part, the fossil fuel lobby is no longer interested in an anti-climate campaign; government policy has progressed beyond this point – energy companies are now interested in how they can best manipulate climate policy to their benefit. They are rent seeking to ensure that they are not left behind.

Coal companies are likely to be the most impacted by policies to address global warming. Coalfired power plants are seeking grandfathered emission rights that they can sell, thereby earning millions of dollars. Because the emission permits have value, electricity producers can justify rate hikes. Coal companies are also seeking government handouts to subsidize investments in carbon capture, although it will likely never be used except to justify continued production of electricity from fossil-fuel plants. The financial intermediaries support the issuance of emission permits because they stand to profit handsomely by facilitating their trade.

U.S. companies that mine coal are seeking alternative market opportunities as international demand for coal to fuel power plants continues to rise. Why abandon a profitable coal pit when sales to India, China, and Japan and elsewhere can make up for the loss of the domestic demand? Indeed, for some coal companies, shutting down coal plants can lead to a significant increase in incomes. Not only can they sell coal abroad, but they can even sell the emission rights to which they are entitled after shutting down their 'polluting' coal plants.

## Ad hominem Attacks

Suzuki employs another familiar tactic, namely, ad hominem attacks on scientists. Suzuki and others like him are unable to refute the scientific arguments made by serious scientists, such as Roy Spencer, Ross McKitrick and others, so they attack their beliefs and associations. Clearly, the scientific findings of such folks cannot be trusted according to Suzuki; by appealing to his readers' emotions and prejudices rather than their ability to think, Suzuki is telling the reader he considers them incompetent to judge scientific matters. What nonsense! Ideologues such as David Suzuki have likely never read the scientific case made in numerous peer-reviewed articles by McKitrick, Spencer and others whom he labels 'deniers.' Yet, these few scientists have almost single handedly wreaked havoc on the well-funded science underlying the Intergovernmental Panel on Climate Change (IPCC) reports.

With various colleagues, McKitrick refuted Michael Mann's hockey stick upon which the IPCC had built its case that current warming is unprecedented in human history; it now appears that

it was much warmer during the Medieval Warm period. McKitrick also demonstrated that surface weather station data are contaminated, unreliable and fail to show that CO<sub>2</sub> is the cause of observed warming. He has shown that fears of catastrophic warming could best be addressed by a straightforward and simple global carbon tax tied to changes in the temperature of the tropical troposphere (where climate models predict warming will show up before any other place). Such a tax would appeal both to proponents of the dominant IPCC view and its detractors. Yet, no one is willing to go this route, preferring instead to focus on reducing fossil fuel use as the only strategy for addressing speculative global warming.

Along with John Christy, Roy Spencer developed a means of measuring temperatures based on information from satellites. Satellite-based temperature data turn out to be much more reliable than that from surface-based weather stations. In a series of peer-reviewed scientific papers, Spencer and his colleagues have shown that climate models overstate the case for global warming. Empirical evidence from satellites indicates that the predicted rise in temperatures is much lower than indicated by the climate models. A major reason is that increased water vapor in the atmosphere caused by the CO<sub>2</sub>-induced warming leads to a much smaller increase in temperatures than indicated in the climate models; this is because the accompanying increase in cloud formation that is ignored in climate models causes temperatures to fall.

## **David Suzuki Science**

In 2003 I was asked to give a talk on the economics of climate change, while a representative of the David Suzuki Foundation would present the science side. You can imagine my surprise when the Suzuki representative turned out to have nothing more than a BA in History. If this is David Suzuki's idea of what constitutes science, it is little wonder that he rants and raves against the 'climate deniers.' He is nothing more than an environmentalist who cares less about the science than his ideology.

Suzuki was a colleague when I was head of the Department of Agricultural Economics and a professor of forest management at the University of British Columbia. I only met him once at a discussion among select UBC faculty members when the ecological economist Herman Daly was in Vancouver. The only thing I can remember of that encounter was that David had promised his wife that he would not become too excitable if the discussion went against his views – it must not have. More recently, I tried to get at David's record as a scientist. He had a number of articles published in some excellent journals on "Temperature-sensitive mutations in *Drosophila melanogaster*" – the common fruit fly. This must have constituted his PhD research. However, other than four or five scientific papers dealing with similar topics (including one on genes and human values), I could find little else. Early in his career, David Suzuki appears to have become a popularizer of science, much like a journalist (albeit a very good one), abandoning serious scientific research by the mid to late 1970s.

It is clear that Suzuki knows little about scientific research. He confuses projections from computer models with scientific evidence. To him, the computer models tell the story he wants to hear – that human activities, particularly fossil fuel use, are endangering the planet. The mounting evidence that computer models are wrong, and that it is unscientific to rely exclusively on computer models and not the empirical evidence, seems to escape him. Only if the computer models came to a different conclusion would he seek other means to re-assert the 'fact' that humans are endangering the planet. If anything, it is Suzuki who has abandoned science, not the scientists who question the IPCC, whether of the religious right or not. Suzuki has become post modern.

## **Science and Post-Modern Science**

What is post-modern science? Post-modern science takes the view that science is a cultural activity, and that culture (gender, race, religion, etc) affects science. In its most radical form, therefore, science is a relativistic activity. Outcomes depend on one's culture, race, gender, et cetera. It is little wonder that one of David Suzuki's most cited works is <u>Wisdom of the Elders</u>. It is also little wonder that computer models are a favorite tool of post-modern science. Computer models can embrace cultural perspectives and ideology under the cloak of science. This is one of the problems with climate models – at some point they depart from pure physical relationships to include aspects that are driven by social and cultural imperatives, and ideology. Where this occurs within the models may be subtle, and involve no more than tweaking parameters to get the results supporting one's ideology. (Indeed, I heard a story where someone inquired of a research associate who did scenario analysis on climate models as to when she knew that the model result was the correct one. The response: "when the result matched the boss's view of what should be happening.")

Surprisingly, perhaps, modern society accepts many false shibboleths that have long been proven wrong. For example, if you ask anyone, including many scientists, whether people living at the time of Columbus (1492) thought the earth was spherical, they would probably say that the prevailing view was that it was flat. Yet, in his book, *"Inventing the Flat Earth: Columbus and Modern Historians"* (New York: Praeger, 1991), Jeffrey Russell demonstrates that every educated person in Columbus' day knew the earth was a sphere, including the prelates of the Catholic Church; the debate concerned the earth's diameter, not its shape. Indeed, I find it surprising that any educated person today would think that people in the fifteenth century, or at any other time in ancient and modern history, considered the world to be anything but spherical.

It is well known that the development of evidentiary science (hypothesis testing) went hand-inhand with Christianity. Science arose in Christian countries and nowhere else. Or, perhaps more appropriately, sustained scientific thinking only arose in countries that could be considered Christian. There were times in India, China, North Africa, the Middle East, and pre-Columbus America when significant advances in learning and knowledge took place, but in all cases the scientific development appears to have hit a wall. Thus, the Chinese invented many things, and even traded with India and perhaps Africa in the 15<sup>th</sup> Century, but they backed away for whatever reason. Muslim scholarship also reached a certain level, but again never progressed beyond it. It was only in Europe that sustained scientific development took place. Indeed, scientific development was continuous and sustained even through what was mistakenly and erroneously referred to as the 'Dark Ages' (as if Europe had lost its knowledge). This has been most recently pointed out by the former University of Washington scholar, Rodney Stark, in his excellent study *For the Glory of God. How Monotheism Led to Reformations, Science, Witchhunts, and the End of Slavery* (Princeton University Press, 2003, especially Chapter 2).

It is a shame that David Suzuki is so ideologically blind that he can no longer recognize science and the scientific method – hypothesizing, collecting data, testing, evaluating (perhaps using computer models to gain insights), abandoning hypotheses in the light of empirical evidence, collecting more data, re-evaluating, considering alternative hypotheses, and so on. Science is a continual process and rarely if ever are scientists satisfied that the current state of affairs – the currently accepted model or theory – is the final answer. Science is an ongoing endeavor, not something leading to or driven by consensus or majority. If anything, an appeal to consensus is likely the best signal that there is something amiss – that the theory is in deep trouble.

As the Harvard philosopher, William Anderson, put it in *First Things* (February 2010):

"The burden of proof for destructive climate change firmly rests with those whose remedy requires an overturning of economic and political assumptions without precedent. We need to apply the best thinking of which we are capable. We haven't done that so far. In the postmodern dispensation that now beguiles us, this will be an uphill trudge. It is always more fun to damn the facts and embrace wishes. The great game of climate-change baseball is in the late innings, but Reality bats last."

The empirical data will indeed have the final say! Good scientists could ask for nothing else.