

Ferguson: Energy Matters

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Inconvenient or Otherwise, What is Truth?

Al Gore's An Inconvenient Truth showed here in Boonville last Saturday, the day after the Intergovernmental Panel on Climate Change (IPCC) released its recent report. Not having seen the film, I had to attend. Afterward, some folks hung around to talk.

To my surprise, several asserted that "they knew all this 30 years ago." Not wanting to offend, I didn't argue with them, but they are wrong. In 1977 nobody "knew" what would be happening with the climate today. There were theories. There were some preliminary indications. Early computer models were beginning to provide crude projections.

The only thing scientists knew for sure was that global carbon dioxide levels were increasing, thanks to data being collected in Hawaii. Global temperature signals were still down in the noise caused by natural variability.

The Wall Street Journal editorial on the IPCC report went to the other extreme by claiming that we still don't "know" that we humans are responsible for global warming. The Journal's claim was just as wrong as my Boonville neighbors'.

Unfortunately, scientific truth doesn't appear in black and white but in various shades of gray. The IPCC report's language reflected this fact, claiming that it is "very likely" that human activities are warming the globe. Five years hence, the next report may say that it is "extremely likely" or "virtually certain" or even "beyond any reasonable doubt." But scientists will not say that it is absolutely, positively, 100 percent certain that climate changes are caused by humans. Data will never be complete enough to eliminate all other possibilities. Science is comfortable with this ambiguity, even if Boonville and the Journal are not.

A story is told about Albert Einstein after astronomers tested one of his theories. He had predicted that observations would yield a certain number - 10, for example. The measurements weren't very accurate but showed that there was only a 5 percent chance that the "correct" number was less than 5 or greater than 15.

If Einstein had predicted 20, the measurements would have shown that his theory was likely wrong. Since his prediction lay within the observed uncertainty, it could be correct, but the experiment did not prove the theory was right. No measurements, no matter how accurate, can ever provide such proof. They can only reduce the level of doubt.

The end of the story is that Einstein was asked how he would have felt if his prediction had not fallen within the range of uncertainty in the observations. He is reported to have responded, "It would be too bad for God. It is such a nice theory."

In the real world, we deal with the absence of 100 percent certainty all the time. When the weather report says there is a 90 percent chance of rain, we prepare to get wet. Residents of New Orleans were advised to leave the city even though meteorologists were not 100 percent certain that Katrina would strike and cause

major damage. We buy fire insurance even if we don't expect our house to burn down.

What the IPCC report says is that there is a high probability that our use of fossil fuels is warming the planet. These reports are vetted by politicians, including those from the U.S. and Saudi Arabia, so you can be sure that the reports are as cautious in their claims as possible. The IPCC is not in the business of stretching the truth - politicians' involvement ensures that truth is shrunk to a minimum.

There is now worldwide consensus that the risk of catastrophic global warming is great enough to warrant efforts to reduce the use of fossil fuels. Indeed, there is a growing danger that the public will conclude that catastrophe is inevitable, so why bother?

Unfortunately, the Gore film spent too much time convincing viewers that there is a problem and too little time talking about solutions. (It is also too much about Al Gore, the politician. It does have great graphics, however).

We cannot avoid global warming, but we still can limit the heat and the resulting damage if we try hard.

That's the truth.

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