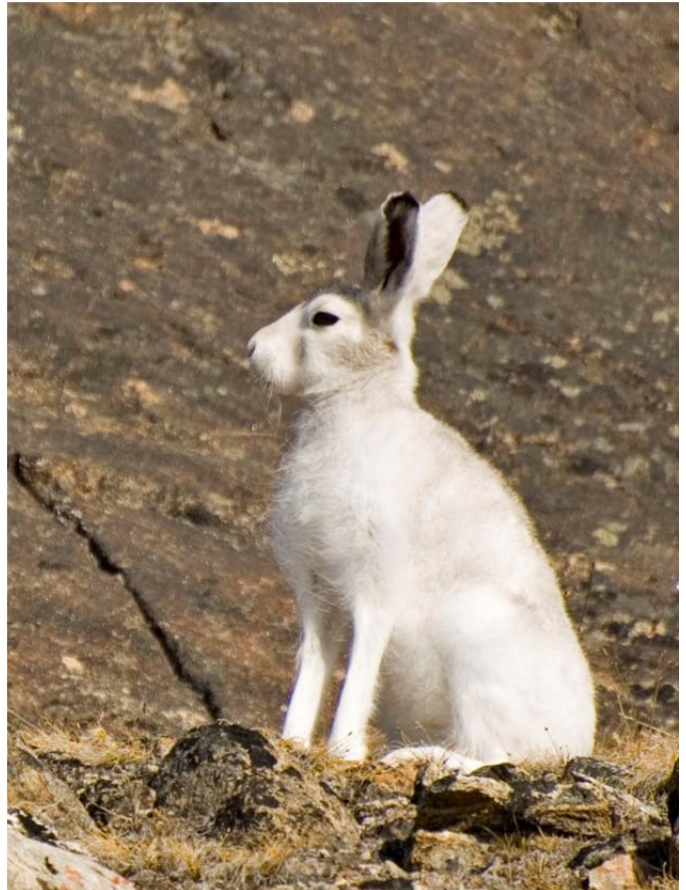


The Climate Change Awareness Drought is Over

Part Two: Voices Tell Us “The Warmists Are Dead”

Which side is biased and how do we tell with all the noise in the media?

May 24, 2012, Austin, Texas: *Polls, surveys and academic evaluations of public opinion are showing a shift in the collective public understanding of climate change. Unprecedented extreme weather and political cues have allowed Americans to begin to disregard what the “voices” have been telling us. The voices, and their “message,” lack credibility, yet their message is endlessly repeated in the media echo chamber. The brute force of Mother Nature can overcome many obstacles however. The increasing change in awareness is grounds for a shift in advocacy policy towards how we urge for climate change action. It is time to begin anew. Climate pollutants are just pollutants. They will be no harder to limit and clean up than have been the challenges to find solutions to human toilet pollution over the last century. The voices have no credibility. Their money allows them to speak with millions of voices. The media is not qualified to tell the climate right from climate wrong.*



The bias in climate change messaging is well documented in academia. This bias comes from conservative news reporting sources and those institutions like the Heartland Institute or George C. Marshall Institute. One example of the bias in messaging comes from Stanford in 2010. It found that more exposure to Fox News quite significantly biased the respondents view against the consensus position on climate change. These researchers found that 82 percent of survey respondents that watched no Fox News believed the Earth’s temperature has been rising while 19 percent fewer Fox News viewers (63 percent) believed this. They found that 85 percent of respondents that watched no Fox News believed that the temperature increase is caused mostly by things people do or about equally by things people do and natural causes, whereas 25 percent fewer Fox News Viewers (60 percent) believed this.

In this study the authors tell us: “more exposure to Fox News was associated with more rejection of many mainstream scientists’ claims about global warming, with less trust in scientists, and with more belief that ameliorating global warming would hurt the U.S. economy.”

A more comprehensive study dealing with the reasons behind the different beliefs of viewers predominantly watching the Fox News Channel was presented by Feldman et al., in the *International Journal of Press/Politics* in 2011. Their findings backed up the Stanford study but went further. They found that Fox News viewers were consistently polarized in their beliefs vs. CNN and MSNBC viewers that showed no polarization.

The campaign to deceive is a monster. All one has to do is pick up a few books to define the magnitude of this concerted effort led by Conservative think tanks and institutions representing big money, fossil fuels and big business. The books are becoming endless and among their highly credentialed publishers are: Powell, *The Inquisition of Climate Science*, Columbia University Press, 2011; Bradley, *Global Warming and Political Intimidation*, University of Massachusetts Press, 2011; Dr. Michael Mann, *The Hockey Stick and the Climate Wars*, Columbia University Press, 2012; Hulme, *Why We Disagree About Climate Change*, Cambridge University Press, 2009, and Dr. Naomi Oreskes, *Merchants of Doubt*, 2010, Bloomsbury. And to wring this out, a paper in *Political Science* in December 2010 reviewed 141 books on portraying a skeptical view of the consensus and found 92 percent of them were funded by Conservative think tanks.

Television commercials from sources like Exxon, British Petroleum and the American Petroleum Institute (there are many more) litter our evening viewing entertainment with proclamations that fossil fuels are good, are central to our society and that we need more of them in the greatest whole-hearted American way. This of course (except for the sarcasm) is very valid. Our society has evolved with fossil fuels and it is very obvious that significant changes in the cost of energy can cripple our world.

But the amount of propaganda produced by these sources, vs. the propaganda produced by sources whose message is to address our fossil fuel “addiction” is simply staggering. This kind of messaging influences us tremendously.



One book that I left off the above list that shows the great extent of organized propaganda created to persuade the American public about the dissenter's viewpoint concerning climate change is *Hogan and Littlemore, Climate Cover-Up: The Crusade to Deny Global Warming*, Greystone, 2009, and Oreskes and Conway, *Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming*, Bloomsbury, 2010. These publishers are not the Academic powerhouses common to the above list, but the authors pursued this issue with a passion only similar to Rachel Carson and her *Silent Spring* which was published by a trade publisher Houghton Mifflin in 1962.

What about prominent scientists with dissenting positions like the Pielkes or Judith Curry? There are a few climate scientists whose views have been significantly reported in the media (and significantly promoted by interests capable of broadly advertising their message) that hold some viewpoints different from the consensus crowd. These scientists are mostly represented by the 2 to 3 percent of actively publishing climate scientists described in Anderegg et al. in their paper from 2010 (see the discussion of this work below as well as Oreskes 2004, Doran and Zimmerman 2007, Bray and Storch 2010 and Farnsworth and Lichter 2011).



There will always be dissenting views in science. Some are valid based on existing knowledge, others are rapidly disproven. Similar controversies in science have been repeated time after time, to name a few: planetary orbital theory, ice age theory, germ theory, continual drift theory and atomic theory. It took 100 years for ice age theory to be accepted by the vast majority of scientists. Yet still, somewhere near half of the population in the U.S. believes Earth is less than 10,000 years old.

Is it weather? Are these public opinions reflecting changes in

the weather, not changes in climate? Is the trend long enough to be valid? Climate after all, is decades of weather. This change in trend is only a few years. If a doctor warns someone for twenty years that their smoking could give them cancer, and it occurs, was it caused by smoking?

The “weather is not climate” argument is a good argument and one that I use often, but it simply does not apply here. The “weather” has been getting weirder for decades. Now the extremes have become unprecedented as discussed in Part three under “How Valid is the Trend?”

The findings in these polls and surveys are about respondent’s opinions about weather events, not about weather or climate itself. The validity of the trends in these cases is no different than the validity of public opinion poll trends looking at who is most likely to win a political race. Statistical validity is based on sample size, sample diversity and statistical measurements. The statistical validity of short-term opinion polls is little different from the statistical validity of long-term climate data. It just takes much, much longer to accumulate climate data than public opinion data and the data are much different in shape and form.

To lay the “bias” question aside, certainly there is bias. But, it is not coming from the vast majority of climate scientists. To illustrate the extent of the scientific acknowledgment of man's impact on our climate, Naomi Oreskes, Professor of History and Science Studies at the University of California San Diego, in a paper in the journal *Science*, in 2004 (updated in 2005), revealed an astounding truth about academic thinking and current climate changes.

The study analyzes the contents of the ISI database. The ISI database (The Institute for Scientific Information) is an ongoing collection of over 18,000 scientific journals and is the foremost compendium of academic peer reviewed papers in the world. The ISI database provides a comprehensive coverage of the world’s most important and influential research. Oreskes searched the database period 1993 to 2003 for papers with the key words "global climate change" in their summaries.

This search found 928 papers. Seventy-five percent of the papers argued that climate change was caused by man, evaluated the impacts of climate change caused by man or discussed alternatives to lessen the impacts of climate change caused by man. Twenty-five percent dealt with scientific methods or the study of our ancient climate and took no position as to whether our current climate change is being caused by man. *Zero percent of these papers argued that the climate changes we are seeing on our planet today are a natural occurrence.* Of course, this research is only related to those papers with the key words “global climate change” in their summaries.



The “ukaliq”, or Arctic hare, is four times the size of our lower latitude cottontail rabbit that we are all accustomed to.

Doran and Zimmerman from the University of Chicago, Illinois, in the publication of the 50,000 member American Geophysical Union *EOS*, surveyed over 10,000 earth scientists about their professional opinions on climate change in 2007. Of over 3,000 responses, 90 percent (including prominent scientists who disagree with the consensus) say the earth is warming and 82 percent say it is caused by man. Of those specialists whose work consists of more than 50 percent of their publishing related to climate science, 96 percent say the earth is warming and 97 percent of those say it is because of man. Interestingly, they found only 47% of petroleum geologists and 67% of meteorologists surveyed agreed there was human involvement in global warming.

A study by Bray and Storch (2010) from the Institute for Coastal Research in Geesthacht, Germany looked at over 2,000 international climate scientists’ opinions in 2008. The respondents for their study came from the Oreskes study mentioned above, from the authors in ISI database journals showing the ten highest impact ratings between 1998 and 2007 and from climate or weather related organizations such as the National Center for Atmospheric Research, the similar Max Planck Institute in Germany, the American Meteorological Society, etc. They found that 94 percent of 375 respondents answering their survey agreed that climate change was occurring and 84 percent said it was caused by man. This work did not break out the responses per the respondents’ area of scientific expertise.

Farnsworth and Lichter at George Mason University have published a Research Note in the *International Journal of Public Opinion Research* (Oxford University Press) in October 2011 titled *The Structure of Scientific Opinion on Climate Change*. Their survey list came equally from the American Meteorological Society and the American Geophysical Union, and was limited to individuals listed in the prestigious publication *American Men*

& *Women of Science*, which is the most widely recognized biographical reference work on leading American scientists.

Their selection procedure did not include media weathercasters and they received responses from, 489 of their 998 questionnaires (which is a really high response rate). Why no television weatherpersons? Weather and climate as we are concerned with here are distinctly different. Weather looks at “climate” for the future in terms of days, maybe weeks and sometimes months. Climate science is concerned with “weather” from the past and future based on the shortest time frames of years and generally 30 years to centuries and millennia. Weatherpersons are certainly knowledgeable about climate, but no more so than say, pharmacologists are knowledgeable about cancer.

What Farnsworth and Lichter found was that 97% of their respondents agreed that Earth was warming and 84% said it was because of man. Only 5 percent disagreed that it was because of man. They tell us that the greater proportion of atmospheric and, metrological scientists in their sample could be the reason why their “belief in man-caused climate change results” was lower than Doran and Zimmerman. “Surprisingly” (said that in the paper), industry based scientists were not predisposed to show a preference one way or the other towards man-caused climate change. And tellingly, scientists based in academia were more likely to see climate change impacts more severely than their counterparts in industry and government positions.

Anderegg and colleagues (2010), from Stanford, the University of Toronto, the William and Flora Hewlett Foundation, in the *Proceedings of the National Academy of Sciences*, reported that between 97 and 98 percent of nearly 1,400 climate scientists’ publications reviewed, published by climate scientists who are most actively publishing findings in their field, support the human-caused climate change consensus. Out of the two to three percent that do not support the consensus, 80 percent have published fewer than 20 papers.



There are lots of Arctic hares now, but their environment is changing as rapidly as any on the planet. Parts of the Arctic have seen more than ten degrees of change already. These creatures live nowhere except the Arctic. What will happen to them and scores of other species like them when the Arctic has changed (which will happen in the not too distant future on the path that we are upon) to something more like Minnesota?

The consensus crowd includes only 10 percent of scientists who have published fewer than 20 papers. Not only do almost all climate scientists support the consensus position, those that do not support it do not have anywhere near the credentials as the consensus crowd. In the authors' words: "The relative climate expertise and scientific prominence of the researchers unconvinced of ACC [anthropogenic climate change—global warming] are substantially below that of the convinced researchers."

As for the peer reviewed literature that contradicts the above I will just cite one extensive review of the literature against Oreskes (2004) and Anderegg et al., (2010), of about 7,000 words and 58 references (Goot, 2011): "None of the criticisms leveled at Oreskes or Anderegg et al. undermine their findings in any substantial way."

Scientific discipline does make a difference. Any old scientists can be knowledgeable, but their knowledge may be inaccurate relative to that of the specialists. We need to pay the most attention to the most actively publishing climate scientists. The bias is not in the circles of specialists, it is in the voices of interests capable of widespread advertisement of their message and it is repeated far and wide by the media that knows not what it is about.

The media does their reporting innocently. Or maybe ignorantly is more an appropriate term. They no more know who is correct than the general public, or the vast majority of the signers of the Oregon Petition. They are reporters, not climate scientists. Their principles are based on the Journalists' Creed. They are vested in the public trust and understand that both sides of the story need to be presented in an unbiased manner. To a journalist, "fair" is not just a motto for a television news program, but a presentation of both sides of an issue.

Our society has taught journalists and their kin to be fair. The Federal Communications Commission created the Fairness Doctrine in 1949 just to be sure. This rule required that media coverage of public issues be covered on the news and contrasting viewpoints were required to be presented. It said that broadcasters were to provide coverage of controversial news and public affairs when appropriate. This was the way it should be done. It was just and fair. It basically created investigative journalism as we know it today, or as we knew it twenty years ago. The Fairness Doctrine was abolished by President Reagan in 1987.

Then there was the Equal Time Rule, established in 1927 and recodified in 1934. It was a rule addressing political issues only, intended to provide an equivalent opportunity to any opposing political candidates who request it.

These two rules help define ethics, and the morally appropriate way to behave while reporting on television and radio. It is only fair that both sides of the story be heard, that those with different beliefs be given appropriate time to demonstrate their position accordingly. We as a society understand these ethical and moral rights and generally we uphold them to the utmost degree.

But there is a big challenge associated with climate change, or science of any kind really. Most public issues in the past and today deal with beliefs and issues. Climate change is not about beliefs and issues. Beliefs change over time as the public's perception of an issue changes over time. These are things like: racial issues, alcohol consumption, workers' rights, child labor laws, women's suffrage, slavery, right to life, appropriate religious beliefs, separation of church and state, the right to bear arms, nuclear power, national healthcare, birth control, etc.

Climate change is about science. Science has no morals. There are ethics involved in science, but they are the ethics of the industry of science, not the perceived appropriateness of an issue like “the right to life.” Issues can be debated based upon beliefs. There are no “beliefs” in science, only facts or evidence.

So right away, you see that there is a fundamental problem with the way our society is treating climate change as just another political issue. We are treating it like it is another belief; something that can be judged through morally appropriate behavior. We actively seek contrasting



viewpoints and consume them with the same weight as the consensus position. Kruger and Dunning, in the *Journal Psychology*, put this problem very simply:

When people are incompetent in the strategies they adopt to achieve success and satisfaction, they suffer a dual burden: Not only do they reach erroneous conclusions and make unfortunate choices, but their incompetence robs them of the ability to realize it.

Incompetent is a harsh word, but how does one know that climate change is real if they do not have the knowledge to understand the science is valid when their authority figures are telling them the science is not valid? Ignorance in many cases is not bliss. The media just reports, but should place more confidence in the vast majority of specialists? Should they be more aware of the sources of the information they are reporting? Or the funding sources of the information sources that they report? Who gets more credibility, the George C. Marshall Institute or Penn State? The Oregon Institute of Science and Medicine or the Woods Institute? If one does not have the knowledge necessary to make decisions on such topics, how does one tell?

A little more knowledge however, may spoil the pudding. From the Yale Cultural Cognition Project we find that a little more knowledge often serves to reinforce the position of social issues of one’s peers. Higher education does not always mean that appropriate climate science is recognized for what it is. More education can enhance what is often described as the Kruger Dunning Effect. Understanding a few more facts about climate serves to reinforce the well-designed propaganda of the vested interest groups that is so widely distributed to the media. This design specifically enhances commonly understood, intuitive evidence to the contrary of more detailed information understood by specialists.

The media only understands that the public trusts them to be fair, and that the rules their industry evolved under require them to provide equal time to the opposition. But the rules that trained this industry were written for issues-based discussions, not science based discussions. The bias is on the side of the voices. The media faithfully upholds their ethics and reports what the voices have to say in ignorant bliss.

A Revelation

But all is not even as the voices themselves believe. In their quest to quell, they have denied the key to the whole conundrum. Authoritative voices tell us climate change is not real, that it is a scientific conspiracy, that it is a natural cycle soon to end and that it will be good for society. These same voices, that are telling us all of these things at the same time; these are the voices that tell us that the solutions to climate change will ruin our economies.

Climate scientists say nothing of the sort. Richard Alley, Evan Pugh Professor of Geosciences at Penn State University, one of the lead authors of the 2001 and 2007 IPCC Reports, member of the United States National Academy of Sciences and one of the pivotal international researchers in climate science, tells us in his book *Earth the Operators Manual*; about 100 reports have been published concerning the economic impacts of the solutions to climate change and they are focusing in on one thing.



The solutions to fixing our climate will cost about one percent of global gross domestic product every year for 100 years. This may seem like a lot of money (\$540 billion a year), but it needs to be taken in context. Professor Alley tells us that the cost and effort required to fix our climate will be no more than what has been spent across this planet in the last 100 years installing our human waste collection and treatment infrastructure. That's right. The cost and effort required to clean up greenhouse gas pollution is really not so much different than the cost and effort required to clean up human toilet pollution.

It's time to begin anew. Climate pollution is just that—pollution. It's no big deal, and a lot of people are going to make lots of money creating climate toilets to get rid of the climate pollution.

Part three of this series looks at the validity of the trend: the validity of the public awareness trend *and* the trend of increased and unprecedented weather extremes caused by climate change. Completing this article, we explore public opinions on how the U.S. Government should be treating climate change and some amazing numbers about how an active and vigorous position on “green” issues has been shown to win more political battles and races.

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