A13C-0223. Why do anthropogenic global warming skeptics have poorer scientific credentials than their opponents? N.L. Rogers¹

The controversial PNAS article

	Expert credibility in climate	e change		
	William R. L. Anderegg ^{a,1} , James W. Prall ^b , Jacob Harold ^c , and Stephen H. Schneide			
0	^a Department of Biology, Stanford University, Stanford, CA 94305; ^b Electrical and Computer Engineering, Universit 3G4; ^c William and Flora Hewlett Foundation, Palo Alto, CA 94025; and ^d Woods Institute for the Environment, Sta Contributed by Stephen H. Schneider, April 9, 2010 (sent for review December 22, 2009)			
	Although preliminary estimates from published literature and expert surveys suggest striking agreement among climate scientists on the tenets of anthropogenic climate change (ACC), the American public expresses substantial doubt about both the anthropogenic cause	climate change skeptics and co on researchers that have publi although we consider all skept minent statements concerning		

The authors used a data base of 1372 scientists. There were 903 scientists who support the global warming narrative and 472 scientists who oppose of the global warming narrative.² Support or opposition was based on participation in the IPCC AR4 or the signing of public statements on one side or the other.

Believers in the global warming narrative - an example public statement:

...many millions of people will be at risk from extreme events such as heat waves, drought, floods and storms, our coasts and cities will be threatened by rising sea levels, and many ecosystems, plants and animal species will be in serious danger of extinction.

2007 Bali Declaration

Skeptics of the global warming narrative - an example public statement:

... there is no convincing evidence that CO2 emissions from modern industrial activity has in the past, is now, or will in the future cause catastrophic climate change.

2008 Manhattan Declaration on Climate Change

The authors of the PNAS article ranked the scientists by numbers of climate related publications and numbers of citations of those publications. The believers had far more articles and citations than the skeptics.

The authors of the study were clearly making the point that the scientists who don't believe in the global warming narrative are poorly qualified in the field of climate change.

> "We show that the expertise and prominence, two integral components of overall expert credibility, of climate researchers convinced by the evidence of [anthropogenic climate change] vastly overshadows that of the climate change skeptics and contrarians."

From *Expert credibility in climate change*

There is an alternative explanation:

If you want to get along, go along. Sam Rayburn		My country, right or wrong. Attributed to Stephen Decatur American war hero	
Don't rock the boat.	voici parti resp	when surrounded by individuals all voicing an incorrect answer, participants provided incorrect responses on a high proportion of the questions	
		n Wikipedia article on the Asch ormity experiments	

Public pressure to support the global warming narrative

Has human-caused global warming become a quasi-official scientific policy, like Lysenkoism?³ Are scientists and others who disagree or have reservations punished or shunned?

Alan Carlin - An MIT Ph.D economist, employed as a career scientist by the U.S. Environmental Protection Agency. He wrote a sophisticated critique of global warming doctrine.⁴ The EPA tried to ignore the document because it was a fundamental challenge to EPA proposals to regulate greenhouse gases. Carlin was depicted as an ill-qualified dissenter by the New York Times.⁵

James Hansen - Hansen is the director of a large government laboratory. He is a prominent advocate of global warming. On a radio show he said: "...CEO's of these large energy companies are guilty of crimes against humanity if they continue to dispute what is understood scientifically and to fund contrarians⁶ ..."

Al Gore - Gore characterized global warming skeptics on 60 minutes as follows: "I think that those people are in such a tiny, tiny minority now with their point of view. They're almost like the ones who still believe that the moon landing was staged in a movie lot in Arizona and those who believe the earth is flat⁷."

Bjorn Lomborg - This Danish economist wrote the best selling book, *The Skeptical Environmentalist*. He artfully questioned global warming mitigation proposals as well as other aspects of the environmental agenda. The *Scientific American* devoted 11 pages to attacking him and denied him an opportunity to reply.⁸ Among the attackers was John Holdren, now the President's science advisor.

John Holdren - The presidential advisor and long time radical environmentalist wrote an August 4, 2008 op ed for the Boston Globe depicting skeptics of global warming as a "denier fringe" who delay the "development of the political consensus..." In the September 3, 2006 UK Sunday Times he was quoted as saying sea level could rise 13 feet by the end of the century - an unscientific opinion he has since disclaimed.⁹













A letter signed by 250 members of the National Academy of Sciences was published in the prestigious journal *Science* on May 7, 2010. The letter contained the following statement:

Many recent assaults on climate science and, more disturbingly, on climate scientists by climate change **deniers** are typically driven by **special interests** or **dogma**, not by an honest effort to provide an alternative theory that credibly satisfies the evidence. (emphasis added)

The words emphasized in red need to be explained to anyone not engaged in the climate

debate. "Deniers" is offensive because it is analogous with holocaust denier. "Special interests" is generally taken to mean oil or coal companies. "Dogma" is taken to mean creationists or fundamentalist Christians. The letter also appears to be a veiled defense of prominent climate scientists who were exposed violating freedom of information laws and thumbing their noses at norms of scientific integrity when purloined emails from the University of East Angelia were published.¹⁰

If a climate of intimidation prevents scientists and others from expressing doubts concerning human-caused global warming the public policy discussion will be unbalanced. Only unusual personalities or persons with little to lose will dispute the proselytizers of global warming.

Climate Criminals - It has become common in some circles to refer to people who are skeptical concerning global warming as "climate criminals." If you google "climate criminals" you will find people and organizations who think that global warming skeptics should be sent to jail for life without parole after all their property is confiscated.



State Climatologists in Virginia, Delaware and Oregon have been fired because they expressed skepticism concerning global warming¹¹.

Stephen Schneider - Advisor to Al Gore, global warming advocate, and Stanford university professor is famous for saying this:

To capture the public imagination, we have to offer up some scary scenarios, make simplified dramatic statements and little mention of any doubts one might have. Each of us has to decide the right balance between being effective, and being honest.¹²

(Stephen Schneider recently died at the age of 65.)



Al Gore and Stephen Schneider at Stanford on the occasion of Gore winning Nobel Peace Prize

My hypothesis: A climate of intimidation exists against scientists (and others) who publicly question the dominant ideology of human-caused global warming.

An academic field has a status hierarchy. Scientists with the most publications and research grants are at the top. Young scientists are at the bottom. The junior scientists cannot afford to annoy the senior scientists - the juniors need jobs, publications and recommendations. If my thesis is correct we should see an absence of junior scientists among the climate skeptics. The lists of climate scientists, compiled by James Prall for the PNAS paper previously mentioned, provide the data that can be used to test this hypothesis. Prall's data base, published on the web, includes approximately 500 skeptic scientists and about 1200 non-skeptic scientists. On either side these are scientists who have signed activist statements or who have association with activist groups.

In order to test my hypothesis I set a criterion that a junior scientist is one who has received his or her Ph.D within the last 10 years. Applying this criterion to Prall's list of skeptic scientists there are only 4 scientists that are both junior and skeptic out of 133 skeptics for which the Ph.D year is available.¹³ When I further investigated the 4 skeptics I discovered that even the scant 4 were not really junior mainstream climate scientists. One was a middle aged tenured professor of mechanical engineering and two others received their Ph.D's late in life after varied

RealClimate.org and Intimidation

RealClimate.org is a web blog with 11 permanent contributors who are prominent climate scientists. The site presents the views of the organizers on climate change and is highly critical of scientists and others who do not hew to the global warming alarmism line. For example, Roy Spencer, a well known scientist with skeptical views is accused of dishing out confusion, cooking a graph and his work is described as "spencer's folly." The work of scientist William Gray is described as "Gray and Muddy Thinking about Global warming."

careers. One late bloomer is an expert in forestry and the other in forecasting science. The remaining skeptic is an innovative physicist with a varied publication record in the climate area, but also somewhat less than junior, having received a previous higher degree from a European

Could it be that it is socially unacceptable for mainstream climate scientists to publicly declare themselves skeptics and that doing so would make them pariahs? university in 1997. None could be considered mainstream climate scientists dependent on grants to study climate specifically.

Conversely, from Prall's data, I was able to easily come up with 49 junior scientists granted their Ph.D's during the last 10 years who qualify as supporters of global warming alarmism because they have signed various public declarations, etc. Most of these appear to be mainstream climate scientists.

The thesis of the PNAS paper is that the non-skeptic scientists are far more qualified based on publications and citations. The implied conclusion is that we should have more faith in the non-skeptic side because the advocates have better qualifications. There is an alternative interpretation of the results. Could it be that it is socially unacceptable for mainstream climate scientists to publicly declare themselves skeptics and that doing so would make them pariahs?

This social pressure would obviously weigh most heavily on the most junior scientists who are insecure in their careers. The result is that there are very few mainstream climate science

skeptics and most of the skeptics are drawn from peripheral fields where they are not subject as much to the

Peer Review = Peer Pressure?

social pressure to conform. Since they are drawn from peripheral fields it is natural that they have fewer publications in climate science.

The results of an anonymous questionnaire show that climate scientists are more skeptical than is apparent from their public demeanor. A survey¹⁴ of 530 climate scientists was conducted by two German scientists. It showed that substantial portions of the scientists harbored doubts concerning crucial tenets of global warming ideology. For example, the predictions of global warming doom by the United Nations Intergovernmental Panel on Climate Change are largely dependent on results from computer climate models. About 2/3 of the anonymous scientists did not subscribe to the idea that climate models can accurately predict future climates.

Who has a stake in global warming alarmism?

The global warming science establishment consists of highly placed scientists and administrators who control well financed organizations such as the Intergovernmental Panel on Climate Change¹⁵ (IPCC) and the U.S. Global Change Research Program¹⁶ (USGCRP). These organizations would not have large budgets if fear of a global warming catastrophe did not exist.

Financially and ideologically interested environmental organizations include WWF, the Sierra Club, Environmental Defense. The National Geographic Society, etc. These organizations benefit from the global warming catastrophe story because it gives them a war to fight. Typically the environmental organizations demonize oil and coal companies, even though many of those companies profess to be fighting global warming too.



Many for-profit organizations benefit from the global warming catastrophe story. For example manufacturers of windmills, manufacturers of "green" products, corn farmers and manufacturers of corn ethanol. The nuclear electric utility, Exelon, is a prominent promoter of

global warming catastrophe because it expects to benefit from sharply higher prices if carbon taxes are imposed. Large financial organizations expect to benefit from the trading of carbon allowances under a cap and trade system.

What are some exaggerated or poorly supported global warming catastrophe claims?

The warming in recent years is clearly due to man's emissions of greenhouse gases - It is clear that the earth warmed between 1970 and 1998. But it also warmed in a similar way from 1910 to 1940 when greenhouse gas emissions were small. The cause of that early century warming is not definitively known. Global warming stopped 12 years ago and some scientists are predicting a period of cooling based on known ocean cycles. It is quite likely that CO2 emissions cause some warming but it is also likely that the promoters of global warming are greatly exaggerating the effect.¹⁷

The Oceans will rise and cause widespread flooding - These claims are based on the theory that the large ice caps in Greenland and/or Antarctica will melt or slide into the ocean. This is impossible on any time scale that is worth worrying about.¹⁸ It is not even clear that global warming would not make the ice caps bigger due to greater snowfall. Currently Greenland is losing 1/25,000 of its ice each year for an approximate 8 year measurement record.¹⁹ It was probably warmer in the 1920's and 1930's in Greenland than now.²⁰

Global warming will cause more hurricanes or stronger hurricanes because the oceans will be warmer - If the oceans are warmer hurricanes might or might not be more frequent or stronger. The question is complex and the evidence is ambiguous.²¹ In any case the oceans stopped warming at the same time as a high quality temperature measurement system was deployed around 2002.²²

The summer arctic ocean ice will disappear and the polar bears will die out because they hunt on the ice - The polar bears are currently in good shape with far more bears than in the 1920's. There is evidence that the summer ice disappeared during the holocene optimum, a warm spell 7,000 years ago and the bears are still here.²³ They are adaptable animals.

The earth's climate has been stable for 1,000 years, but now the temperature has suddenly increased in the 20th century due to emissions of CO2 and other greenhouse gases - This is the hockey stick hypothesis, that the graph of the earth's temperature looks like a hockey stick laying on its side. This hypothesis is based on work by the scientist Michael Mann and has been the subject of great controversy and even a congressional investigation.²⁴ There is overwhelming evidence that it was quite warm during the Medieval warm period around the year 1200, probably warmer than today.²⁵ That creates an big problem for the advocates of global warming since they promote 20th century temperature exceptionalism to support global warming alarmism and for that reason they typically deny the existence of the Medieval warm period or claim that it was a local phenomenon.

² Some scientists took both sides of the issue so the numbers do not add up.

³ The discredited genetic theory put forth by Lysenko that acquired characteristics could be inherited. All scientists in the USSR were "encouraged" to agree.

⁴ Comments on Draft Technical Support Document for Endangerment Analysis for Greenhouse Gas Emissions under the Clean Air Act by Alan Carlin

⁵ Behind the Furor Over a Climate Change Skeptic. New York Times September 24, 2009.

⁶ NPR's Diane Rehm Show on June 23, 2008

⁷ The video clip, Gore On Climate Naysayers (CBS News), is on youtube at: http://www.youtube.com/watch?v=HSh1WuN_dnc

⁸ http://www.greenspirit.com/lomborg/ScientificAmericanBjornLomborgAnswer.pdf

⁹ In a speech on April 21, 2010 at the Fairmont hotel in Chicago at the meeting: Grand Challenges for the 21st Century.

¹⁰ For more details see Climagate Analysis by John P. Costella <u>http://assassinationscience.com/climategate/</u>

¹¹ http://motls.blogspot.com/2007/09/patrick-michaels-fired.html

¹² In interview for "Discover" magagzine, Oct 1989

¹³ The entire list has 496 scientists, but the Ph.D. year is only available for 133 and many do not have Ph.D's.

- ¹⁴ Scientific Consensus on Global Warming (2007) published by the Heartland Institute
- 15 http://www.ipcc.ch/
- ¹⁶ <u>http://www.globalchange.gov/</u>

17 http://www.climateviews.com/Climate_Views/Download_Articles_files/poster1iSmTit.pdf - IPCC Fallacies

¹⁸ <u>http://www.climateviews.com/Climate_Views/Download_Articles_files/WillGreenLandMelt.pdf</u> Will The Greenland Ice Cap Melt?

¹⁹ Simultaneous estimation of global present-day water transport and glacial isostatic adjustment Xiaoping Wu, et. al. Nature Geoscience 3, 542-646 (2010) Using a new method that better takes into account isostatic adjustments ice loss inGreenland from 2002-2008 is estimated at 104 Gt per year or approximately 1/25000th of the total mass of the icecap.

²⁰ Greenland warming of 1920–1930 and 1995–2005 Petr Chylek, M. K. Dubey, and G. Lesins. Geophysical Research Letters June 2006. From the conclusions: "The Greenland warming of the 1995–2005 period is similar to the warming of 1920–1930, although the rate of temperature increase was by about 50% higher during the 1920–1930 warming period."

²¹ <u>http://www.climateviews.com/Climate_Views/Download_Articles_files/HurricanesLinkdedToGLobalWarming.pdf</u> - Global Warming = More Hurricanes?

²² Willis, J. K., D. P. Chambers, and R. S. Nerem (2008), Assessing the globally averaged sea level budget on seasonal to interannual timescales, J. Geophys. Res., 113, C06015, doi:10.1029/2007JC004517 (view graph steric sea level)

²³ See Ice Free Arctic - A Holocene Analogue - poster PP11A-203 AGU 2007 Fall Meeting by Svend Funder Geological Museum University of Copenhagan.

24 http://climateaudit.org/multiproxy-pdfs/ - list of hockey stick articles

²⁵ <u>http://www.co2science.org/data/mwp/mwpp.php</u> - Medieval warm period project

¹ The author is a Senior Policy Advisor at the Heartland Institute. The opinions expressed here are his own. The author is a retired entrepeneur, does not have a Ph.D. and was educated as a physicist. Contact: Norman L Rogers: normfromchicago@gmail.com