SCIENCE UNDER ASSAULT

John Droz, jr. ***Physicist & Environmental Advocate***

NC State Legislature **2/6/13**

NOTE: SlideShare seems to be having some issues with translating presentations properly. Hopefully they are temporary.
If some slides are hard to read, or are missing graphics,
please download the PDF version, which is much better quality.

(Click the "Save" button above the window: it's only a 6± MB file.)

(Use your keyboard arrow keys to navigate here or the PDF.
This will allow you to proceed at your own pace.)

Science Under Assault

This is the live version of my talk actually given to the North Carolina Legislators (as well as other NC Agency people, and the public) in Raleigh, NC, on February 6th, 2013.

This version is without audio or annotations, so is missing a considerable amount of information presented with the dialogue that accompanied the slides.

It also does not include the links for the material presented and referenced.

Both of these can be found online at **ScienceUnderAssault.Info**. That version also includes almost a hundred extra slides that the live version did not have the time for.

In other words, this version is the shorter, simpler but less complete version. Your choice.

– **ENJOY!**

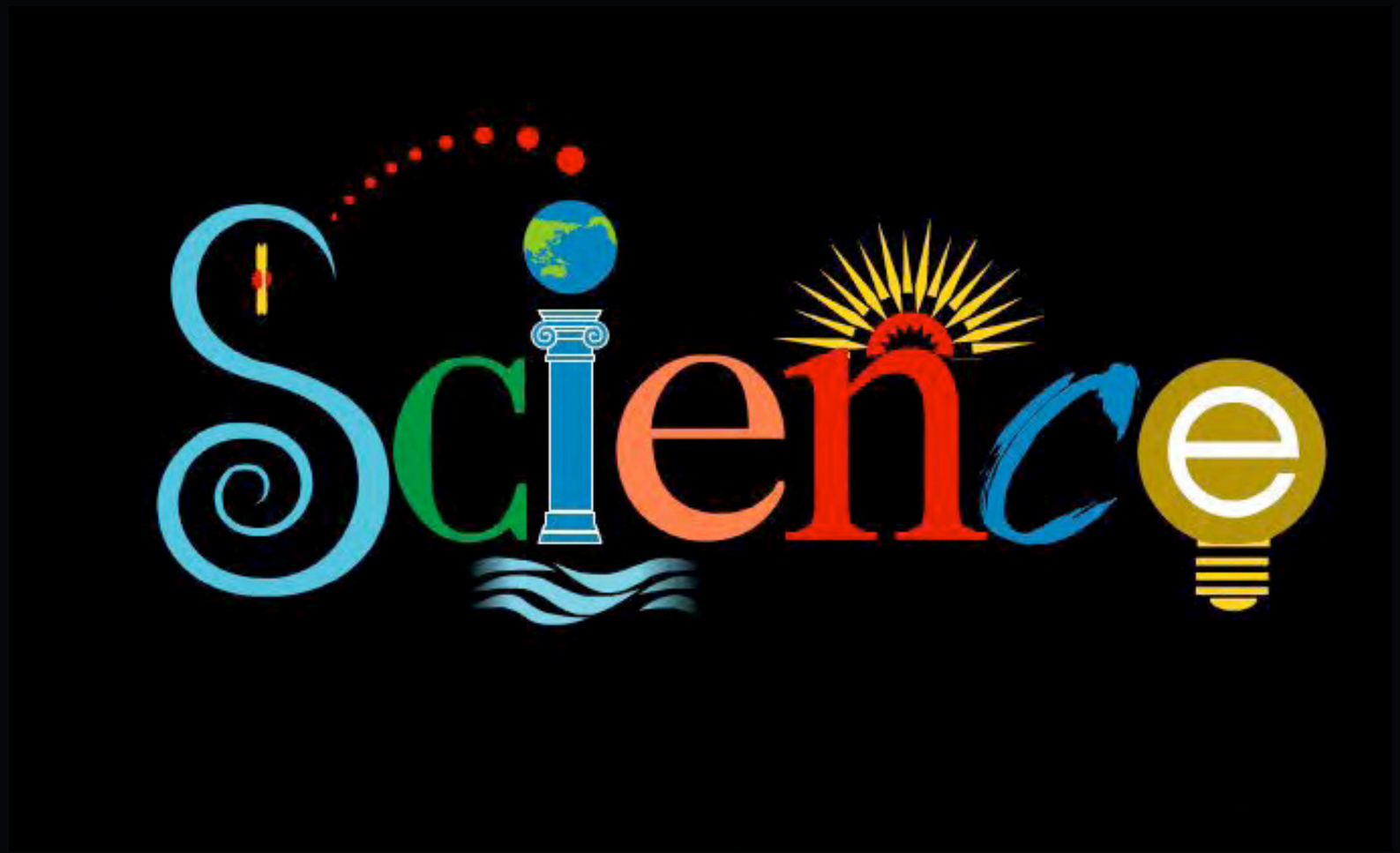
john droz, jr.


Volume 19, No.2
February 2010 $7.50
whistleblower
CREDIBLE. INDEPENDENT. FEARLESS. A MONTHLY PUBLICATION OF WORLDNETDAILY.COM
HIJACKING SCIENCE
From 'global warming' to biology to psychology to sociology, blatant corruption of science is running rampant
500
400
300
200

A LOT More About What You'll See Today, is Online at:

ScienceUnderAssault.Info

Part 1:
Some Basics



Scientist are Regular People!

That means there are:

— some who are smart and others not,
— some who have integrity and others do not,
— some who have a sense of humor and others do not, etc.

Who said:

**"Any man who can drive safely
while kissing a pretty girl
is simply not giving the kiss the attention it deserves"?**

Words are IMPORTANT!

The difference between
the *right* word and the *almost right* word

is the difference between
***lightning* and *lightning bug*.**

— *Mark Twain*

Note How the Promoters Keep Looking for the Most Persuasive Marketing Words...

Catastrophic Anthropogenic Global Warming

↓

Anthropogenic Global Warming

↓

Global Warming

↓

Climate Change

↓

Climate Disruption

Whatever Happens, It's All "Climate Change"

By E. Thomas McClanahan
Posted: 01/24/2013 12:01:00 AM CST
Updated: 01/24/2013 03:33:36 PM CST

The National Oceanic and Atmospheric Administration says last year was the hottest on record in the contiguous United States. As The New York Times put it in a recent headline, it was "not even close."

A couple of days later, The Times published a roundup of global weather gone wild, reinforcing the shift that took place some time back, in which "global warming" became the more vague and menacing "climate change" -- a semantic adjustment that neatly accounted for the annoying lack of statistically significant global warming in recent years.

Along with heat in the United States, The Times story described snow in Jerusalem, endless rain in Britain, heat waves in Brazil and Australia and an arctic air mass settling in from Central Europe to South Asia -- a cold wave severe enough to cause several hundred deaths. In Siberia, it was so frigid that natural gas liquefied in its pipes.

Omar Baddour of the World Meteorological Organization in Geneva told The Times that these events were a sign that, as the paper put it, "climate change is not just about rising temperatures but also about intense, unpleasant, anomalous weather of all kinds."

In other words, if the temperature isn't rising globally then "climate change" is pretty much anything bad that happens. I wish I could remember the blogger who crystallized the fallacy at work here, but he nailed it perfectly: If everything that happens becomes evidence for what you want to believe, how can you call it "science"?

What is "Science"?

Science is <u>not</u>

a collection of Theorems

$E = MC^2$ (Einstein's Theory of Relativity)

$F = G\frac{m_1 m_2}{r^2}$ (Newton's Law of Gravitation)

Science is a **way of thinking,** much more than it is a body of knowledge. Our species needs, and deserves, a citizenry with minds wide-awake, and with a basic understanding of how the world works.

— *Dr. Carl Sagan (Astro-physicist)*

Science has its weaknesses and it doesn't have a stranglehold on the truth, but it has a way of approaching technical issues that is a closer approximation of truth than any other method we have.

— *Dr. Richard Muller (Physicist at Berkeley)*

Science is a

PROCESS

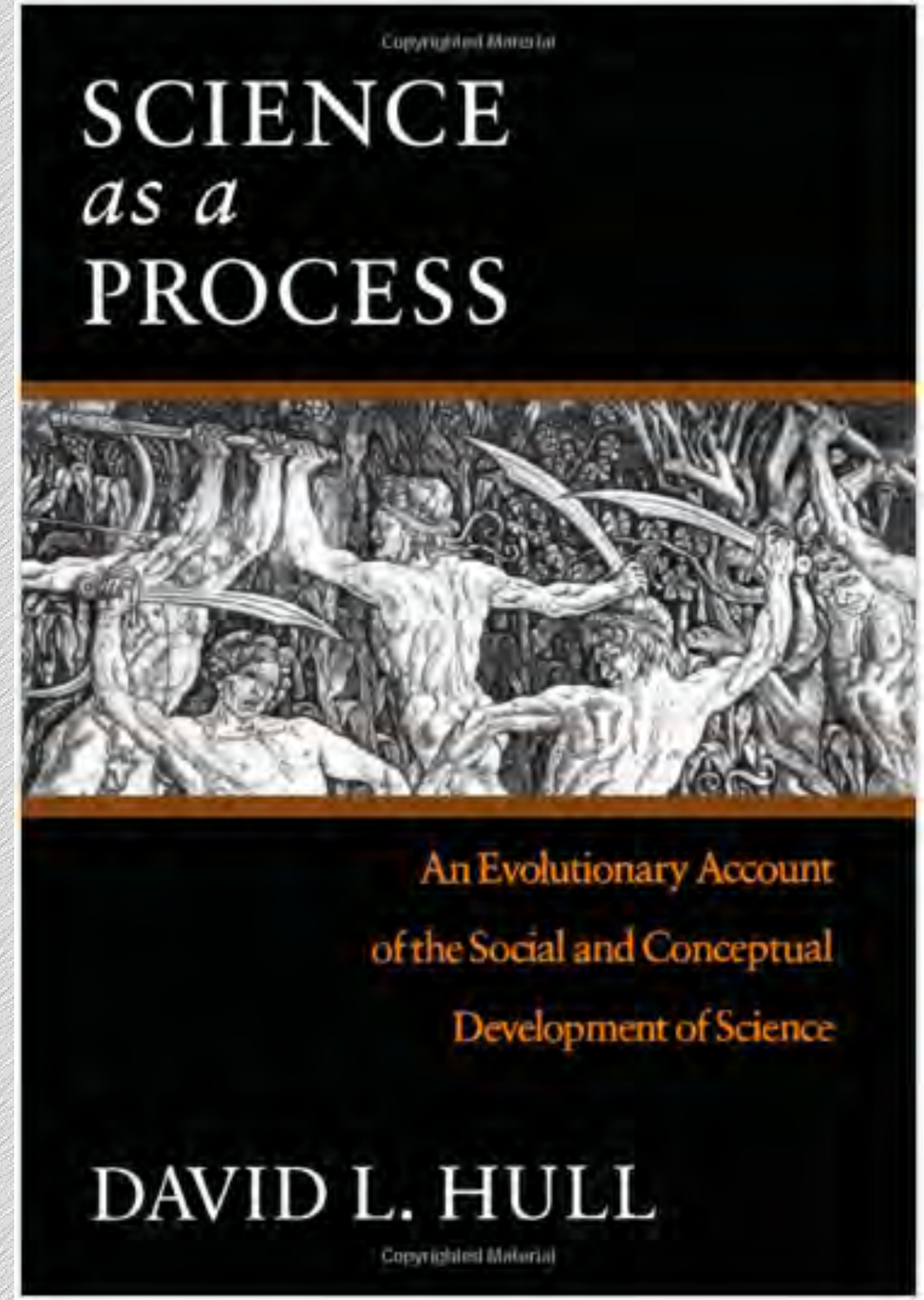
Science is a Process, Not Just a Bunch of Facts

A study published in the January 30 issue of *Science* shows that learning more scientific facts doesn't seem to improve the ability of students to use proper scientific reasoning. This seems like a "*well, duh*" observation to me, but apparently it isn't obvious to those who create science curriculums in many schools around the world.

The researchers tested about 6,000 students majoring in science and engineering at seven universities (4 in the US and 3 in China). Here are the results:

> The first test, the Force Concept Inventory, measures students' basic knowledge of mechanics — the action of forces on objects. Most Chinese students scored close to 90 percent, while the American scores varied widely from 25–75 percent, with an average of 50.
>
> The second test, the Brief Electricity and Magnetism Assessment, measures students' understanding of electric forces, circuits, and magnetism, which are often considered to be more abstract concepts and more difficult to learn than mechanics. Here Chinese students averaged close to 70 percent while American students averaged around 25 percent — a little better than if they had simply picked their multiple-choice answers randomly.
>
> The third test, the Lawson Classroom Test of Scientific Reasoning, measures science skills beyond the facts. Students are asked to evaluate scientific hypotheses, and reason out solutions using skills such as proportional reasoning, control of variables, probability reasoning, correlation reasoning, and hypothetical-deductive reasoning. Both American and Chinese students averaged a 75 percent score.

What's the difference between teaching someone that the Earth is round and that the Earth is flat if you don't also explain how to find out by themselves using hypotheses and evidence?



Scientific Process

is an assessment that is:

1) Comprehensive, 2) Independent, 3) Transparent, 4) Empirical

Technical, Economic, & Environmental

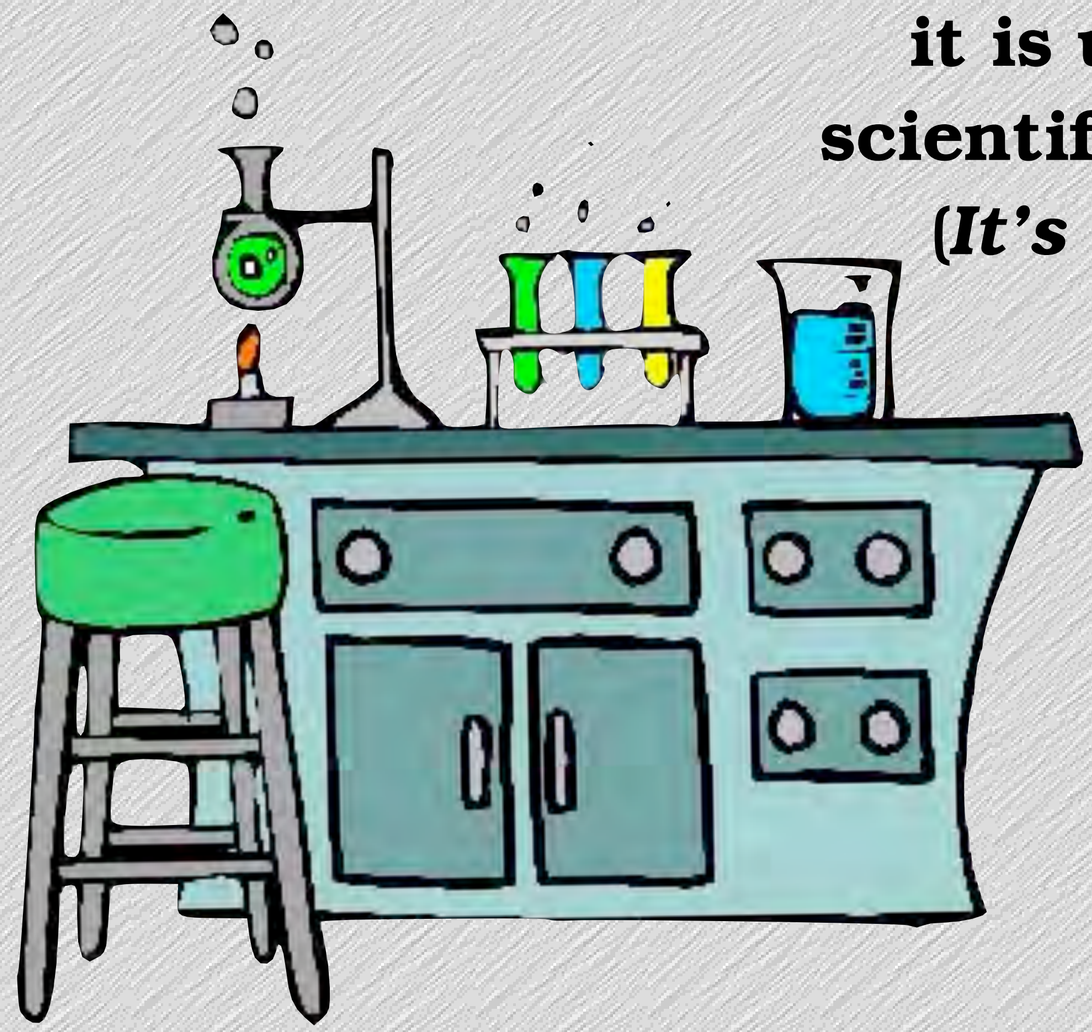
Objective

All Data Available

Real World

Science is a PROCESS that Works Like This:

When a new idea (hypothesis) is proposed as a potential solution to a problem, it is up to the advocates to provide the scientific evidence that verifies its efficacy.
(It's not our obligation to disprove it.)



QUADRANT online

Science without method

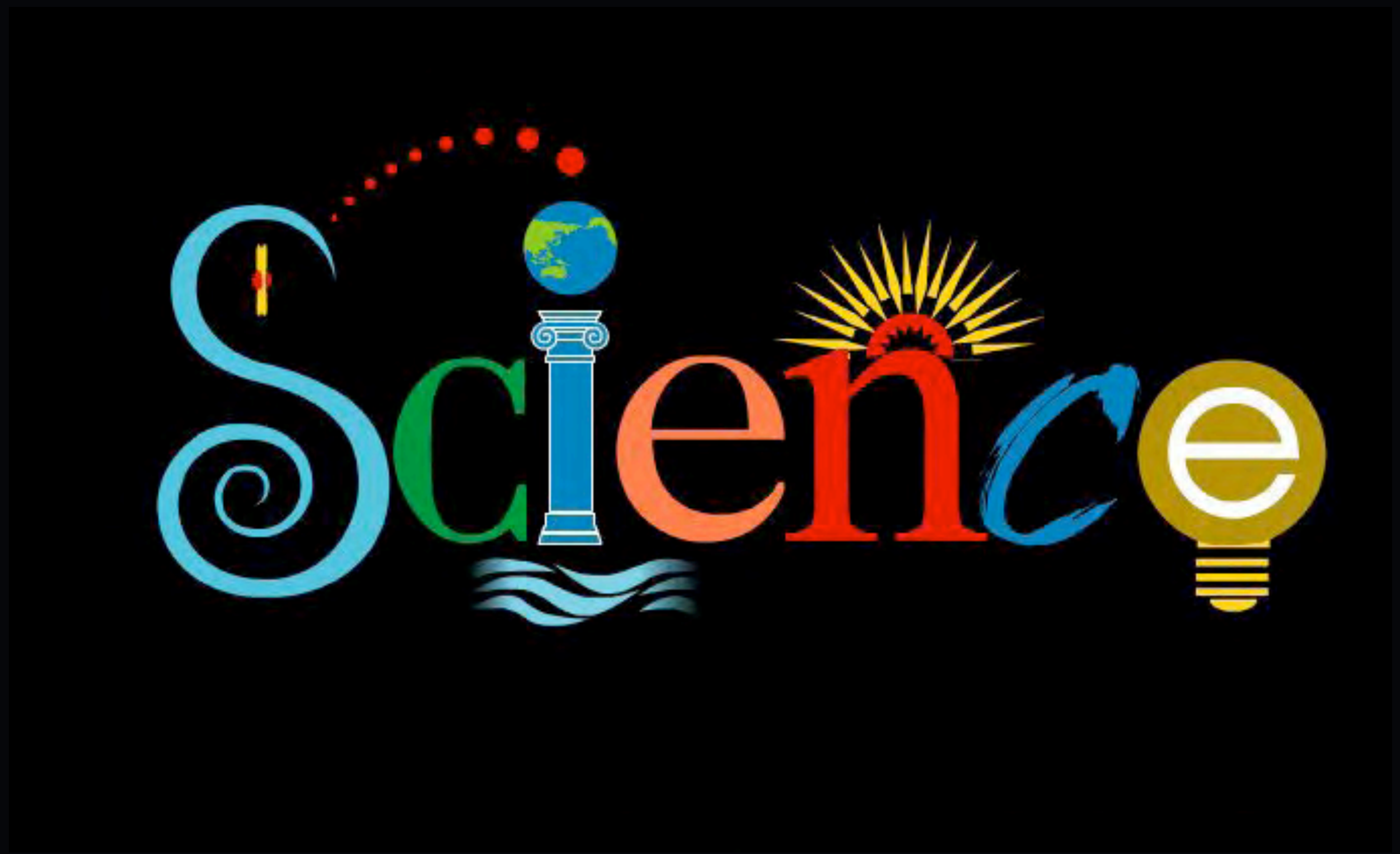
by John Nicol

April 12, 2011

Global warming research: whatever happened to the scientific method?

Global warming, and its euphemistic sibling "climate change", remain much in the news. Specialist research groups around the world continue to produce an unending sequence of papers aimed at demonstrating a litany of problems which might arise should global warming resume. The authors' prime expertise is often found to be not in atmospheric physics or aeronomy, as one might have anticipated. However, the topic of climate change itself provides for abundant research funding, from which they feed, more easily than other areas of research of greater interest and practical use. Most of these papers are, of course, based upon the output from speculative and largely experimental, atmospheric models representing exercises in virtual reality, rather than observed, real-world, measurements and phenomena. Which leads to the question "What scientific methodology is in operation here?"

Part 2:
Science and Religion



Science	Religion
↓	↓
Facts	Faith

THE NEW ATLANTIS

A JOURNAL OF TECHNOLOGY & SOCIETY

Environmentalism as Religion

Joel Garreau

Traditional religion is having a tough time in parts of the world. Majorities in most European countries have told Gallup pollsters in the last few years that religion does not "occupy an important place" in their lives. Across Europe, Judeo-Christian church attendance is down, as is adherence to religious prohibitions such as those against out-of-wedlock births. And while Americans remain, on average, much more devout than Europeans, there are demographic and regional pockets in this country that resemble Europe in their religious beliefs and practices.

The rejection of traditional religion in these quarters has created a vacuum unlikely to go unfilled; human nature seems to demand a search for order and meaning, and nowadays there is no shortage of options on the menu of belief. Some searchers syncretize Judeo-Christian theology with Eastern or New Age spiritualism. Others seek through science the ultimate answers of our origins, or dream of high-tech transcendence by merging with machines — either approach depending not on rationalism alone but on a faith in the goodness of what rationalism can offer.

THE WALL STREET JOURNAL.
U.S. EDITION Thursday, April 22, 2010

OPINION | April 22, 2010

Environmentalism as Religion

While people have worshipped many things, we may be the first to build shrines to garbage.

Article | Comments (102)

By PAUL H. RUBIN

Many observers have made the point that environmentalism is eerily close to a religious belief system, since it includes creation stories and ideas of original sin. But there is another sense in which environmentalism is becoming more and more like a religion: It provides its adherents with an identity.

Scientists are understandably uninterested in religious stories because they do not meet the basic criterion for science: They cannot be tested. God may or may not have created the world—there is no way of knowing, although we do know that the biblical creation story is scientifically incorrect. Since we cannot prove or disprove the existence of God, science can't help us answer questions about the truth of religion as a method of understanding the world.

A new world religion backed by the United Nations

By Collin Mullane - posted Monday, 9 May 2011

The world is going barking mad with religiosity! While many of us feel that we have known this for a long time, it has always been difficult to find substantial evidence that wasn't countered by arguments of religious vilification.

However, I'm not talking about Islamic suicide bombers, Protestants vs Catholics in Ireland, the abhorrent members of Westboro Baptist Church, 'pro-life' radicals bombing abortion clinics, or any of the other examples of minority groups being less than good examples of the faiths they follow.

Instead, I would like to open your eyes to a new pervasive religion that is steadily growing and insidiously lurking in your community. If successful it will have a terrifying impact on the existence of life as we know it.

OP/ED 3/27/2012 @ 12:09PM 932 views

Environmentalism: The New Religion, Freely Taught in Schools

By Robert H. Nelson

GOP presidential hopeful Rick Santorum has brought religion back into the thick of American politics. But his message in the process got garbled.

Campaigning several weeks ago in Ohio, prior to "Super Tuesday," the former Pennsylvania senator offered the opinion that President Obama's political agenda is grounded in a theology that is false, "phony" and misleading.

Science	New Religion
↓	↓
Facts	Faith

Science

Facts

New Religion

~~Faith~~

PewResearchCenter

Public Praises Science

July 9, 2009

Overview

The following report is based on a survey conducted by the Pew Research Center for the People & the Press in collaboration with the American Association for the Advancement of Science

Americans like science. Overwhelming majorities say that science has had a positive effect on society and that science has made life easier for most people. Most also say that government investments in science, as well as engineering and technology, pay off in the long run.

Public Has High Regard for Science and Scientists...

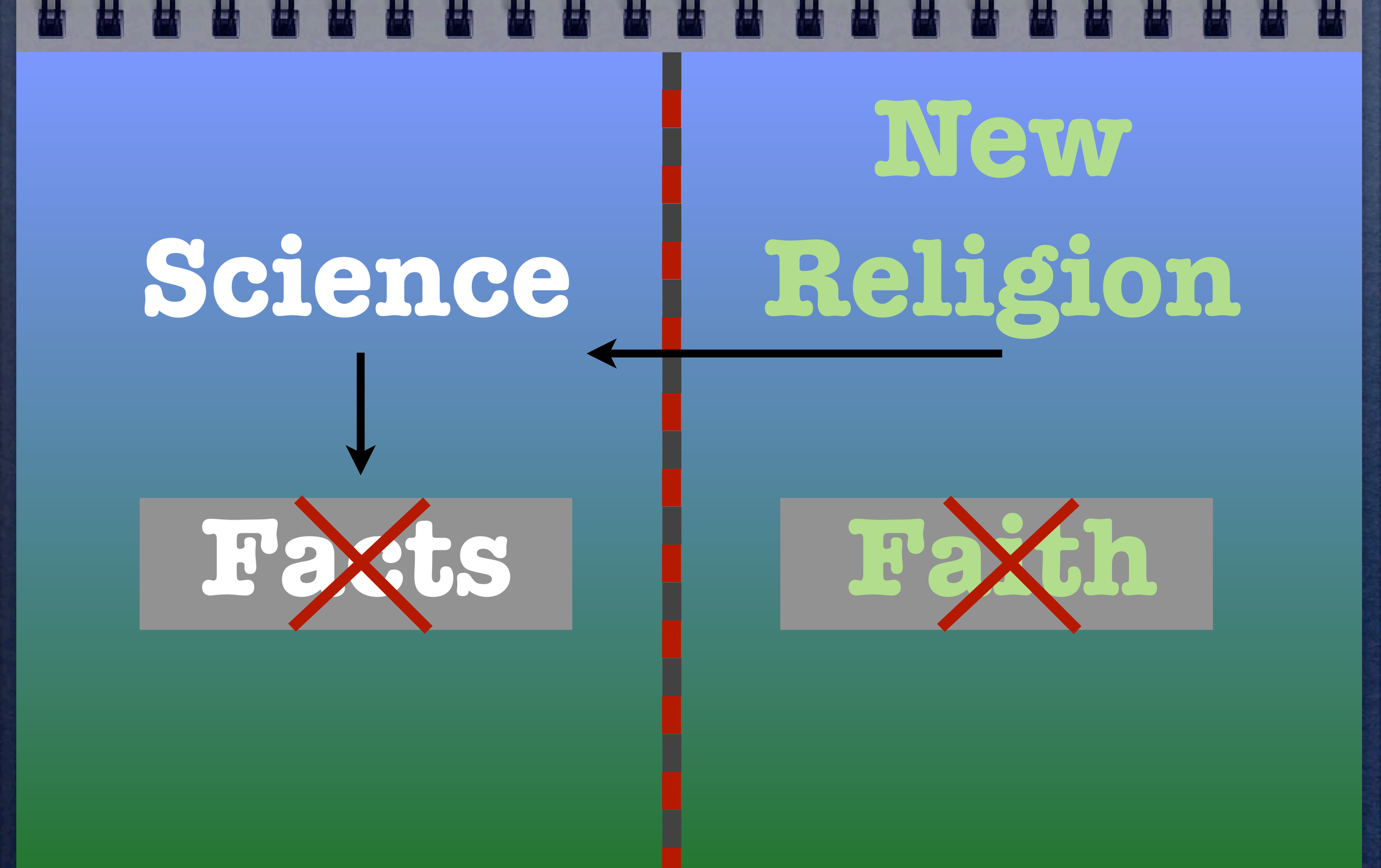
Science's effect on society	Public %
Mostly positive	84
Mostly negative	6
Other/DK	10

Science

Facts

New Religion

~~Faith~~


Science
Facts
New Religion
Faith

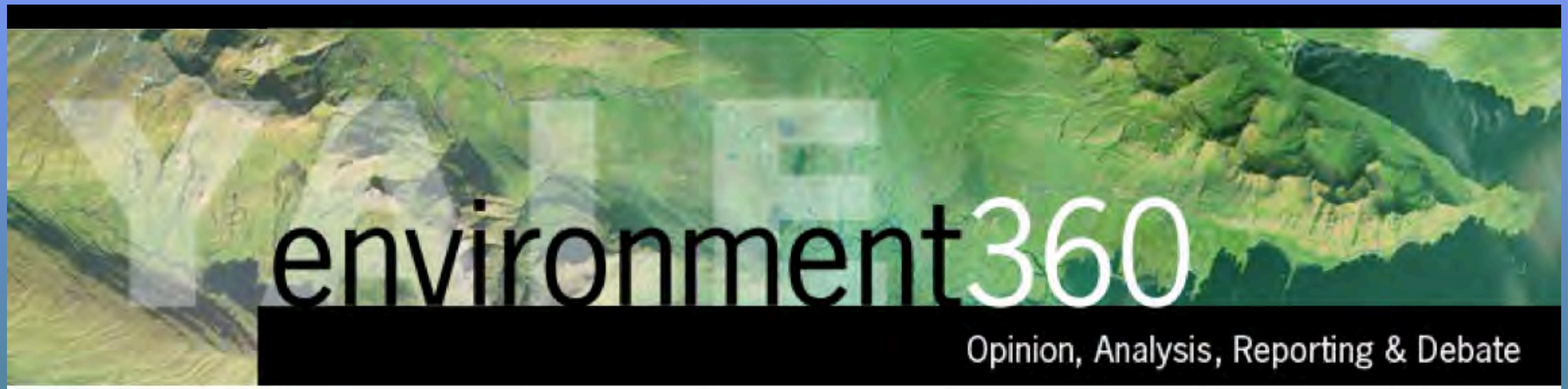
New "Science"

New Religion

Fiction

~~Faith~~

Science is the enemy of agenda promoters.



22 OCT 2012: **OPINION**

Why Are Environmentalists Taking Anti-Science Positions?

On issues ranging from genetically modified crops to nuclear power, environmentalists are increasingly refusing to listen to scientific arguments that challenge standard green positions. This approach risks weakening the environmental movement and empowering climate contrarians.

BY FRED PEARCE

Their Primary Goal:

Undermine the Authority of Science

~~Science~~

↓

~~Facts~~

New Religion

↓

Faith

Many mainstream environmental leaders want to be free of Science, so they can then pursue other political objectives.

Environmentalism is a Substitute for a Religion

Environmentalism and Religion: Substitutes or Complements?

Abstract:

Religion plays an important role in the lives of people. The question that needs to be considered is what is the relationship between environmentalism and religion. To answer the question, this paper uses a new dataset to examine the relationship between membership in environmental groups and the adherence rate (participation rate) in a religion. Another run was completed to look at the relationship between percent evangelical and membership in environmental groups. The relationship for both models is negative and statistically significant after controlling for the relevant variables. This suggests that being a member in an environmental group is a substitute for participation in a religion.

War of World Views: Environmentalism vs the Judeo-Christian Tradition

By Bryan Fischer

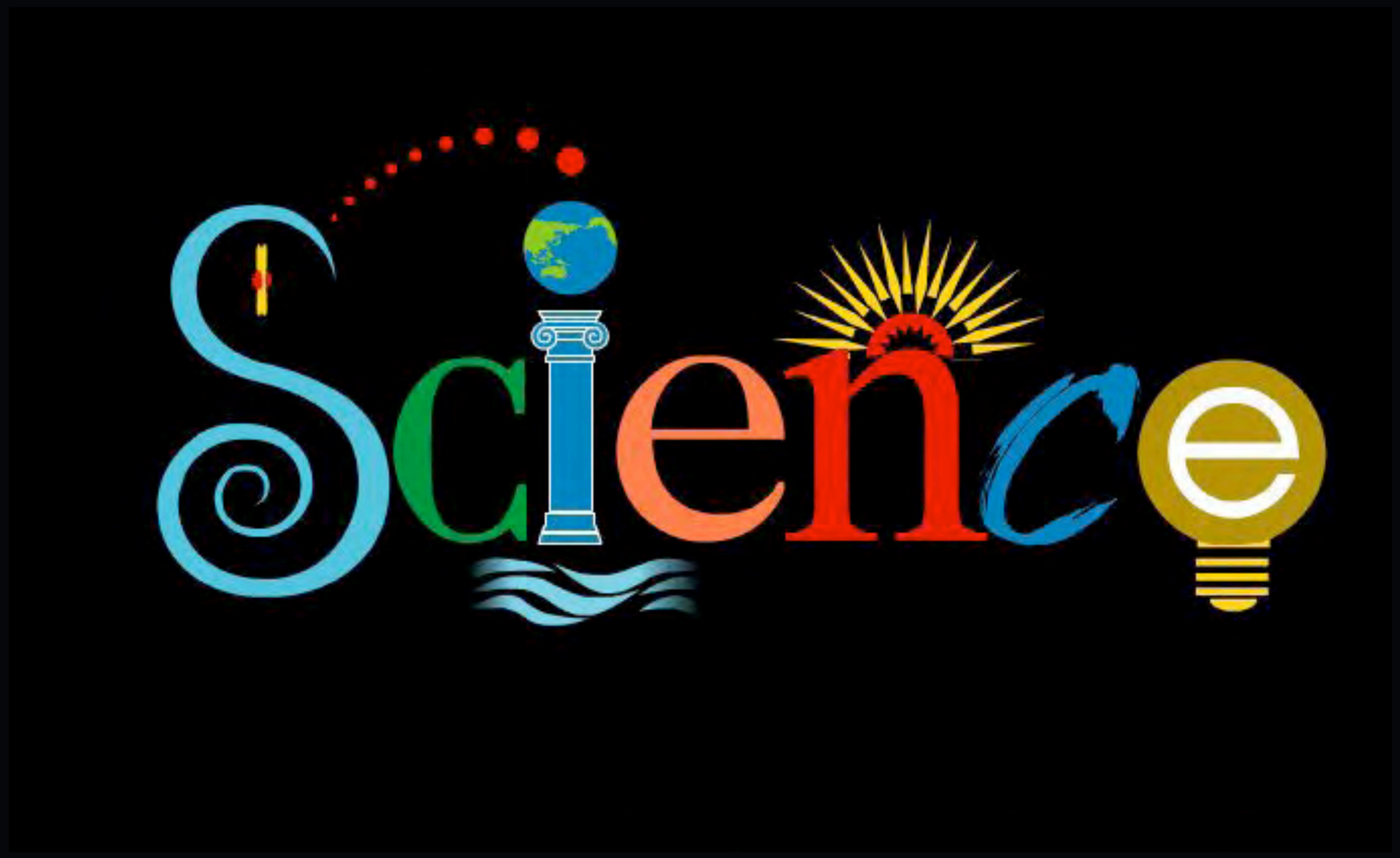
A wing of the evangelical movement, headed by Richard Cizik of the National Association of Evangelicals, is hopping on the trendy environmentalism bandwagon, and linking arms with environmentally activist groups. An evangelical church in Boise is hosting a national conference on the environment this week, and the Sierra Club is actually providing scholarships for college students to attend.

It's important for evangelicals to recognize that, as appealing as it may be to join forces with environmentalists on the left, there are profound differences in worldview that one day must be faced head on. Evangelicals who believe these differences can be held in tension indefinitely are fooling themselves.

Something will have to give, and fundamentalist environmentalists are not about to budge on their deeply held convictions. Ultimately, evangelicals will have to sacrifice their deeply held convictions if they are to continue to team up with dogmatic environmentalists.

As Rabbi Daniel Lapin observed on Dr. James Dobson's radio program, the whole purpose of the environmental movement is to do away with Genesis 1-3.

Part 3:
Some Tricks to Try to Get Around Real Science



Some Tricks to fool the trusting and the unwary...

1- Using Correlation to imply Causality.

Some Tricks to fool the trusting and the unwary...

Correlation Does NOT prove Causation!

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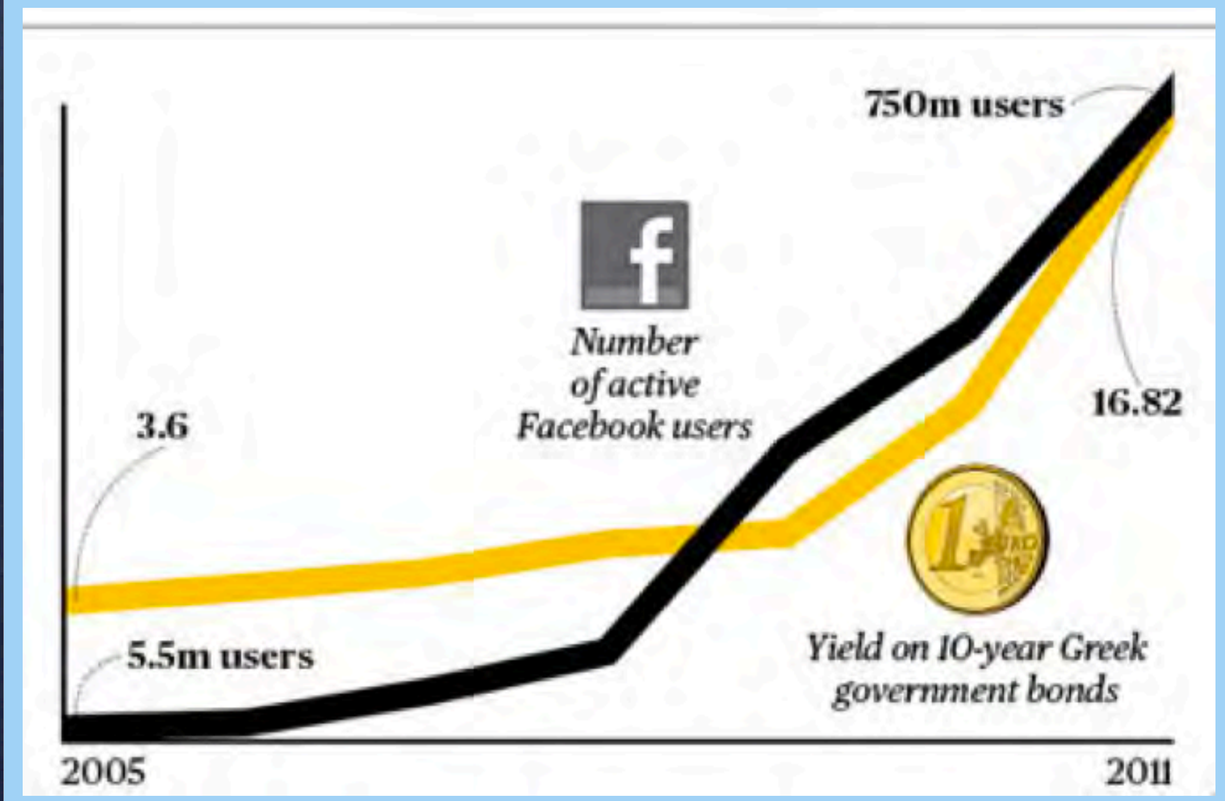

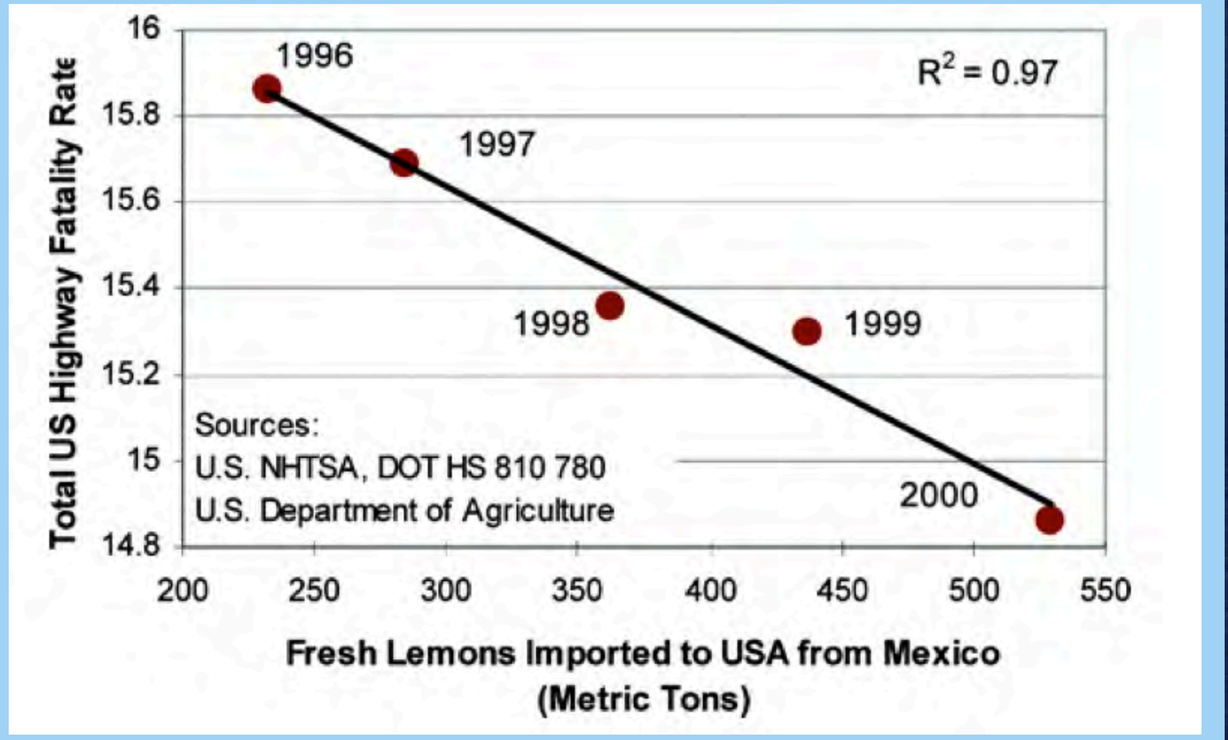

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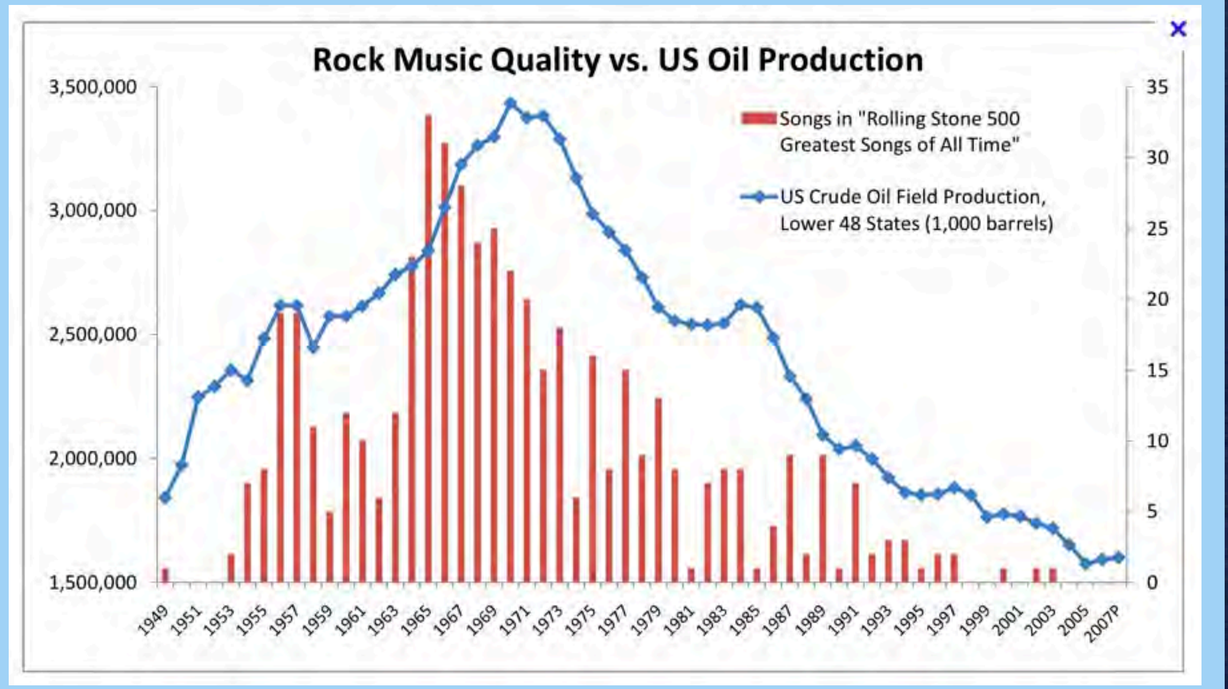

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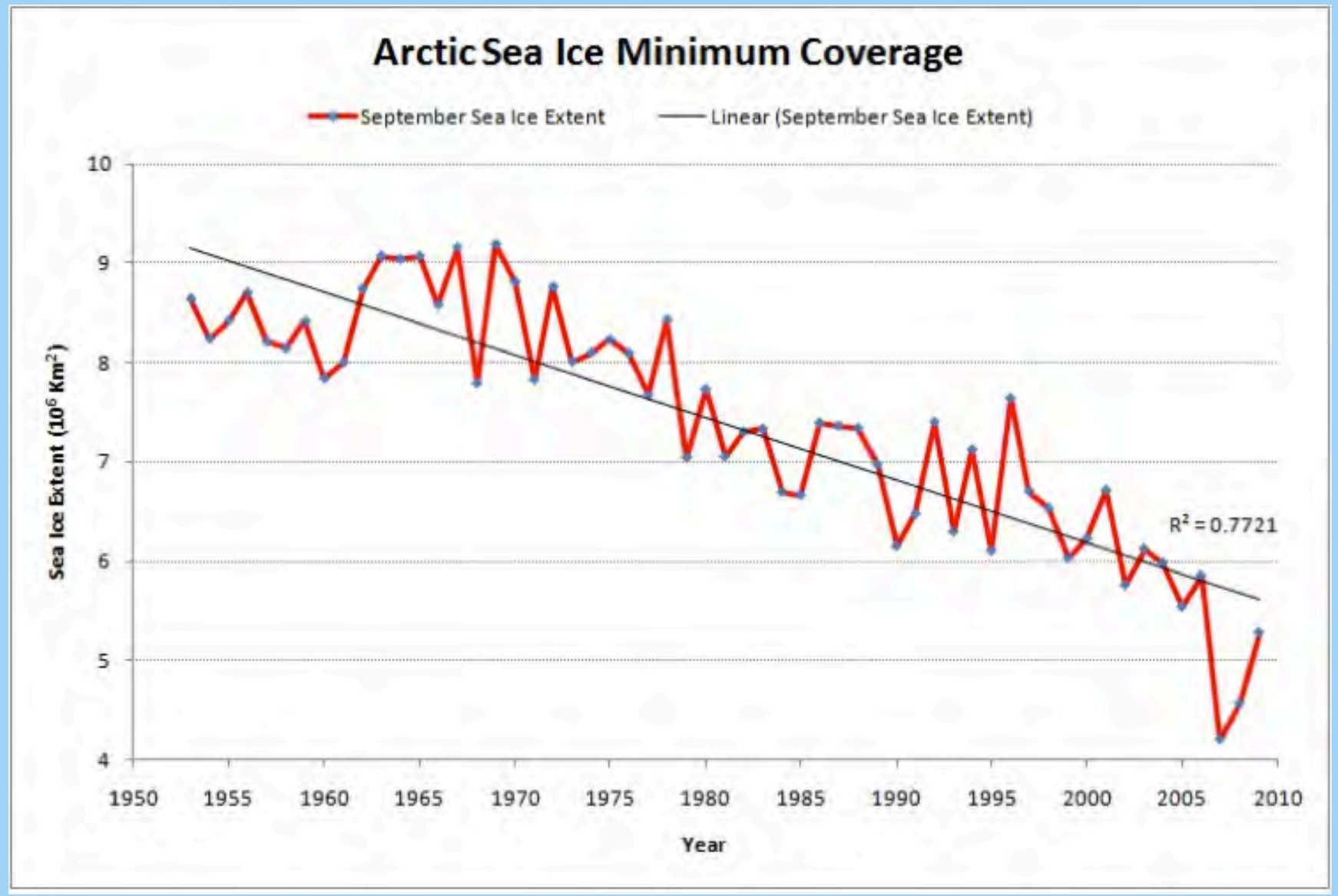

Does this prove that there is Global Warming?

Some Tricks to fool the trusting and the unwary...

Correlation Does NOT prove Causation!

TUE OCT 30, 2012 AT 10:57 AM PDT

Scientific American: Sandy Strength Due To Global Warming

by Gangster Octopus

Like 34 Tweet 10 Email 14 Comments / 0 New

An articel today over at **Scientific American** makes a fairly persuasive argument that Sandy got its power tahnks in large part to Global Warming:

> If you've followed the U.S. news and weather in the past 24 hours you have no doubt run across a journalist or blogger explaining why it's difficult to say that climate change could be causing big storms like Sandy. Well, no doubt here: it is.

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Some Tricks to fool the trusting and the unwary...

Correlation Does NOT prove Causation!

Extreme weather & superstition

NEW YORK POST

Like Follow +1

By RALPH B. ALEXANDER

Last Updated: 11:05 AM, December 10, 2012

Posted: 11:01 PM, December 9, 2012

Superstorm Sandy. Parching drought across North America. A scorching midsummer heat wave in the Midwest. All these weather extremes are telltale signs that CO2 causes climate change, according to global warmists.

Indeed, the global climate-change nomenklatura gathered last week in Doha, Qatar eagerly (if grimly) cited Typhoon Bopha, which had just wreaked carnage in the Philippines, as the latest proof.

But it's not. The link between extreme weather and global warming has as much scientific basis as the pagan rite of human sacrifice to ensure a good harvest.

2- Using Consensus to imply Correctness.

Two Points –

1 - Consensus is not part of the Scientific Process, *and*
2 - Whether there is a real consensus is unknown.

Some Tricks to fool the trusting and the unwary...

Consensus is <u>not</u> part of the Scientific Process

"Let's be clear: the work of science has **nothing** whatever to do with consensus. ***Consensus is the business of politics.*** Science, on the contrary, requires only one investigator who happens to be right, which means that he or she has **results that are verifiable by reference to the real world**.

"Consensus is irrelevant: what is relevant is reproducible results. The greatest scientists in history are great precisely because they broke with the consensus."

— Michael Crichton January 17, 2003: speech at the California Institute of Technology

Some Tricks to fool the trusting and the unwary...

Consensus is <u>not</u> part of the Scientific Process

Einstein re consensus —

"He who joyfully marches to music in rank and file has already earned my contempt. He has been given a large brain by mistake, since for him a spinal cord would suffice."

"Few people are capable of expressing opinions that differ from the prejudices of their social environment. Most people are even incapable of forming such opinions."

Some Tricks to fool the trusting and the unwary...

Consensus is <u>not</u> part of the Scientific Process

Up until recently, the entire medical establishment believed that ulcers were primarily caused by stress...

Every Medical Doctor in the world,
Every Medical PhD Researcher in the world,
Every Medical Hospital in the world,
Every Medical School in the world,
Every Medical Textbook in the world,
Every Medical Journal in the world,
Every Pharmaceutical Company in the world, etc.

THEY WERE <u>ALL</u> WRONG!

Some Tricks to fool the trusting and the unwary...

Consensus is <u>not</u> part of the Scientific Process

Consensus Science: The Rise of a Scientific Elite

by Randy J. Guliuzza, P.E., M.D.

In battle, one clever military tactic is to focus enemy troops' attention on a spectacular frontal assault so they will overlook a deadly side attack. This approach works in other arenas, as well.

The collective opinion of scientists in a particular field on topics where there is general agreement is called the "consensus" of those scientists. A consensus can range from scientific areas that are well supported by experiments, all the way down to areas where nothing has been established. *Rarely* are appeals to scientific consensus used in areas where experimental evidence is *strong*, but they are often favored on subjects where the science is weak to nonexistent (such as the reality of extraterrestrials or parallel universes) and, especially, on divisive social issues that need scientific input. Scientifically speaking, a serious problem arises when advocates wield "scientific consensus" as if it were a valid scientific argument that carries the same weight as experimentally-derived evidence--a practice derisively called "science by consensus" or "consensus science."

Some Tricks to fool the trusting and the unwary...

Whether there is a Real Consensus is Unknown

A March 2008 canvas of **51,000 Canadian scientists** with the Association of Professional Engineers, Geologists and Geophysics of Alberta (APEGGA):

of the respondents —

— 99% believe climate is changing.

— Only 32% agreed with the statement that:

"...the debate on the scientific causes of recent climate change is settled."

— Only 26% of them attributed global warming primarily to:

"human activity like burning fossil fuels."

Some Tricks to fool the trusting and the unwary...

Whether there is a Real Consensus is Unknown

USA TODAY Home News Travel Money Sports Life Tech Weather

SCIENCEFAIR

An experiment in science, space and discovery

Jun 22, 2010

Report: 97 percent of scientists say man-made climate change is real

Comment Recommend 4.4k Tweet 225 +1 3

By Doyle Rice, USA TODAY

Updated 2010-06-22 5:43 PM

Forget the four out of five dentists who recommend Trident.... Try the 97 out of 100 scientists that believe in man-made climate change.

This data comes from a new survey out this week in the *Proceedings of the National Academy of Sciences*.

The study found that 97 percent of scientific experts agree that climate change is "very likely" caused mainly by human activity.

The report is based on questions posed to 1,372 scientists. Nearly all the experts agreed that it is "very likely that anthropogenic greenhouse gases have been responsible for most of the unequivocal warming of the Earth's average global temperature in the second half of the twentieth century."

Note how they subtly (dishonestly) changed it from being *"97% of scientists"* to *"97% of scientific experts"*. Those are *not* the same thing.

And the *"97% of scientific experts"* is also false.

Some Tricks to fool the trusting and the unwary...

Whether there is a Real Consensus is Unknown

Lawrence Solomon: 97% cooked stats

LAWRENCE SOLOMON | Jan 3, 2011 7:08 PM ET | Last Updated: Sep 9, 2012 10:54 AM ET

More from Lawrence Solomon

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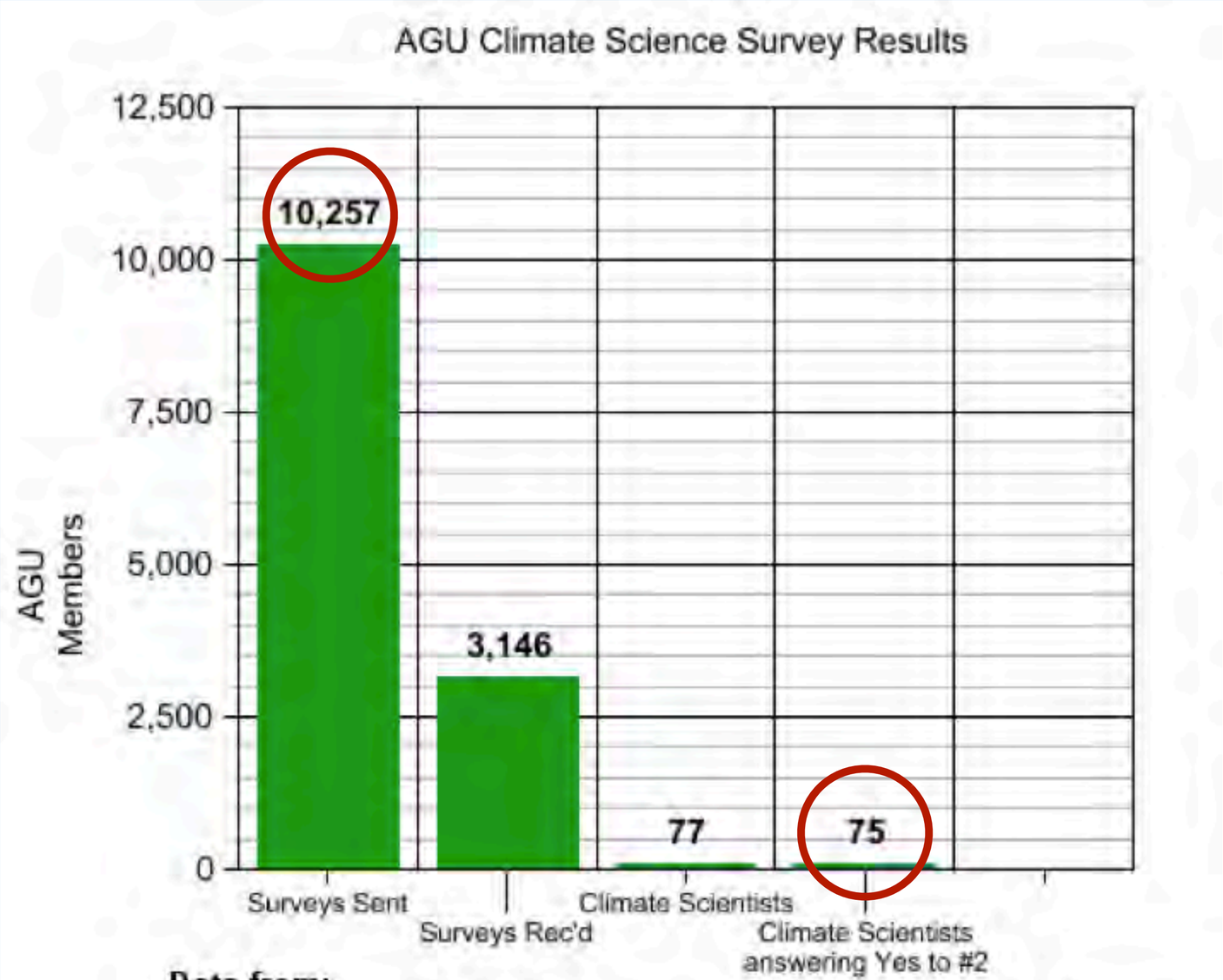
The 'scientific consensus' about global warming turns out to have a lot more to do with manipulating the numbers

How do we know there's a scientific consensus on climate change? Pundits and the press tell us so. And how do the pundits and the press know? Until recently, they typically pointed to the number 2,500 — that's the number of scientists associated with the United Nations Intergovernmental Panel on Climate Change. Those 2,500, the pundits and the press believed, had endorsed the IPCC position.

To their embarrassment, most of the pundits and press discovered they were mistaken — those 2,500 scientists hadn't endorsed the IPCC's conclusions, they had merely reviewed some part or other of the IPCC's mammoth studies. To add to their embarrassment, many of those reviewers from within the IPCC establishment actually disagreed with the IPCC's conclusions, sometimes vehemently.

Some Tricks to fool the trusting and the unwary...

Whether there is a Real Consensus is Unknown



Data from:
Doran, P. T. and M. K. Zimmerman (2009), Examining the Scientific Consensus on Climate Change, Eos Trans. AGU, 90(3), 22, doi: 10.1029/2009EO030002.

Note:

75÷77 = 97%, <u>but</u>
75÷10,257 ≠ 97%!

3- Using “Peer Review” to imply Accuracy.

What is Peer Review?

1 - "Peer Review" is applicable in one primary situation:
when a scientist is proposing a new hypothesis.

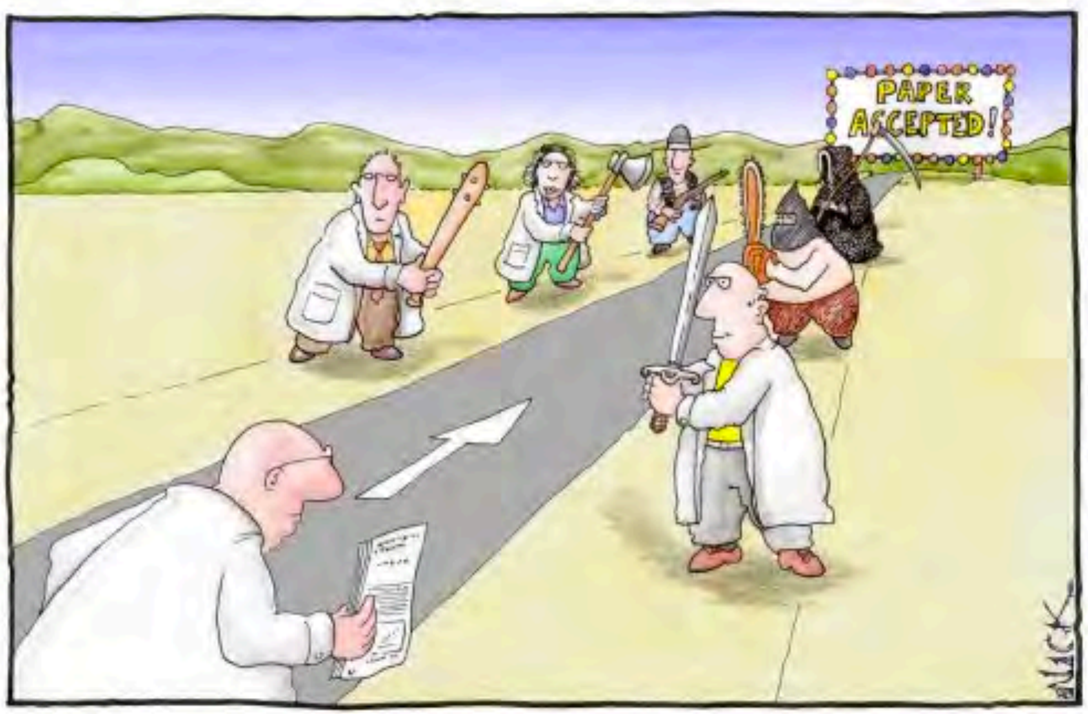
2 - "Peer Review" is simply the *opinions* of selected other scientists about the *acceptability* of a proposed hypothesis.

3 - Even if ***all*** these selected other scientists agree with the hypothesis, that does **<u>not</u>** constitute scientific proof that the hypothesis is accurate.

Some Tricks to fool the trusting and the unwary...

"Peer-Review" is an Abused Credential

Bias In the Peer Review Process: A Cautionary And Personal Account



Most scientists regarded the new streamlined peer-review process as 'quite an improvement.'

by Dr. Roger Pielke Senior

Highly accessed

Classical peer review: an empty gun

Richard Smith

Published: 20 December 2010

Short communication

If peer review was a drug it would never be allowed onto the market,' says Drummond Rennie, deputy editor of the *Journal Of the American Medical Association* and intellectual father of the international congresses of peer review that have been held every four years since 1989. Peer review would not get onto the market because we have no convincing evidence of its benefits but a lot of evidence of its flaws.

Some Tricks to fool the trusting and the unwary...

"Peer-Review" is an Abused Credential

JRSM
JOURNAL OF THE ROYAL SOCIETY OF MEDICINE

J R Soc Med. 2006 April; 99(4): 178–182. PMCID: PMC1420798

Peer review: a flawed process at the heart of science and journals

Richard Smith

Peer review is at the heart of the processes of not just medical journals but of all of science. It is the method by which grants are allocated, papers published, academics promoted, and Nobel prizes won. Yet it is hard to define. It has until recently been unstudied. And its defects are easier to identify than its attributes. Yet it shows no sign of going away. Famously, it is compared with democracy: a system full of problems but the least worst we have.

Some Tricks to fool the trusting and the unwary...

"Peer-Review" is an Abused Credential

Rex Murphy: Climate scientists make a mockery of the peer-review process

REX MURPHY | Jun 18, 2011 8:00 AM ET

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One of the disturbing practices revealed by the great cache of emails out of the University of East Anglia — the so-called Climategate emails — was the attempted shortcutting or corruption of the oh-so precious peer-review process. The emails contained clear declarations of how the grand viziers of climate science would lean on journals and reporters to make sure certain critics did not get the validation, the laying on of peer-reviewed hands, so critical to full participation in the great climate debate. This was most succinctly expressed by the beautiful quote from Dr. Phil Jones of East Anglia that, "We will keep them out somehow — even if we have to redefine what peer-review literature is."

"Peer-Review" is an Abused Credential

"The real mistake, of course, is to have thought that peer review was any more than a crude means of discovering the **acceptability** — *not the **validity*** — of a new finding.

"Editors and scientists alike insist on the pivotal importance of peer review. We portray peer review to the public as a quasi-sacred process that helps to make science our most objective truth teller. But we know that the system of peer review is **biased**, **unjust**, **unaccountable**, **incomplete**, **easily fixed**, often **insulting**, usually **ignorant**, occasionally **foolish**, and **frequently wrong**."

—Richard Horton, editor of the British medical journal *The Lancet*

Some Tricks to fool the trusting and the unwary...

"Peer-Review" is an Abused Credential

PLOS | MEDICINE

Why Most Published Research Findings Are False

John P. A. Ioannidis

There is increasing concern that most current published research findings are false. The probability that a research claim is true may depend on study power and bias, the number of other studies on the same question, and, importantly, the ratio of true to no relationships among the relationships probed in each scientific field. In this framework, a research finding is less likely to be true when the studies conducted in a field are smaller; when effect sizes are smaller; when there is a greater number and lesser preselection of tested relationships; where there is greater flexibility in designs, definitions, outcomes, and analytical modes; when there is greater financial and other interest and prejudice; and when more teams are involved in a scientific field in chase of statistical significance. Simulations show that for most study designs and settings, it is more likely for a research claim to be false than true. Moreover, for many current scientific fields, claimed research findings may often be simply accurate measures of the prevailing bias. In this essay, I discuss the implications of these problems for the conduct and interpretation of research.

4- Using Scientists to imply Scientificness.

Some Tricks to fool the trusting and the unwary...

Is every priest a holy person?

Is every lawyer a law-abiding citizen?

Is every scientist a promoter of science?

Some Tricks to fool the trusting and the unwary...

NO!

Some Tricks to fool the trusting and the unwary...

*There are **tens of thousands** of scientists who are off the reservation!*

This happens due to reasons like:

1) financial incentives (e.g. grants),
2) concerns for job security,
3) the influence of peer pressure,
4) interest in promoting a personal agenda, etc.

When a Priest violates his profession —

he is defrocked.

When a Lawyer violates his profession —

he is disbarred.

When a Scientist violates his profession —

he is funded by advocacy groups.

Some Tricks to fool the trusting and the unwary...

Forbes

New Posts
+6 posts this hour

Most Popular
Worst Cities For The Flu

Lists
30 Under 30

Bill Frezza, Contributor
Chronicling The Decline And Fall Of Entitlement Democracy
+ Follow (75) Follow 0

OP/ED 1/09/2013 @ 8:00AM | 19,211 views

A Barrage Of Legal Threats Shuts Down Whistleblower Site, Science Fraud

Fraud, plagiarism, cherry-picked results, poor or non-existent controls, confirmation bias, opaque, missing, or unavailable data, and stonewalling when questioned have gone from being rare to being everyday occurrences. Just look at the soaring retraction level across multiple scientific publications and the increasingly vocal hand wringing of science vigilantes.

Unfortunately there are numerous indicators that there are MANY scientists who are not fulfilling their professional obligations.

A Report by Scientists ≠ a Scientific Report!

Just because a scientist makes an assertion,
does **not** make that claim *scientific*.

What makes a claim "scientific" is that
it has followed the **Scientific Process**.

Some Tricks to fool the trusting and the unwary...

TIMES 24|7
The Washington Times

Global warming: Bad science and foolish policy

Like Send Be the first of your friends to like this.

American Thinker | by: Karin McQuillan | *Monday, November 28, 2011*

Global warming became a cause to save life on earth before it had a chance to become good science. The belief that fossil fuel use is an emergency destroying our planet by CO2 emissions took over the media and political arena by storm. The issue was politicized so quickly that the normal scientific process was stunted. We have never had a full, honest national debate on either the science or government policy issues. ...

There Is

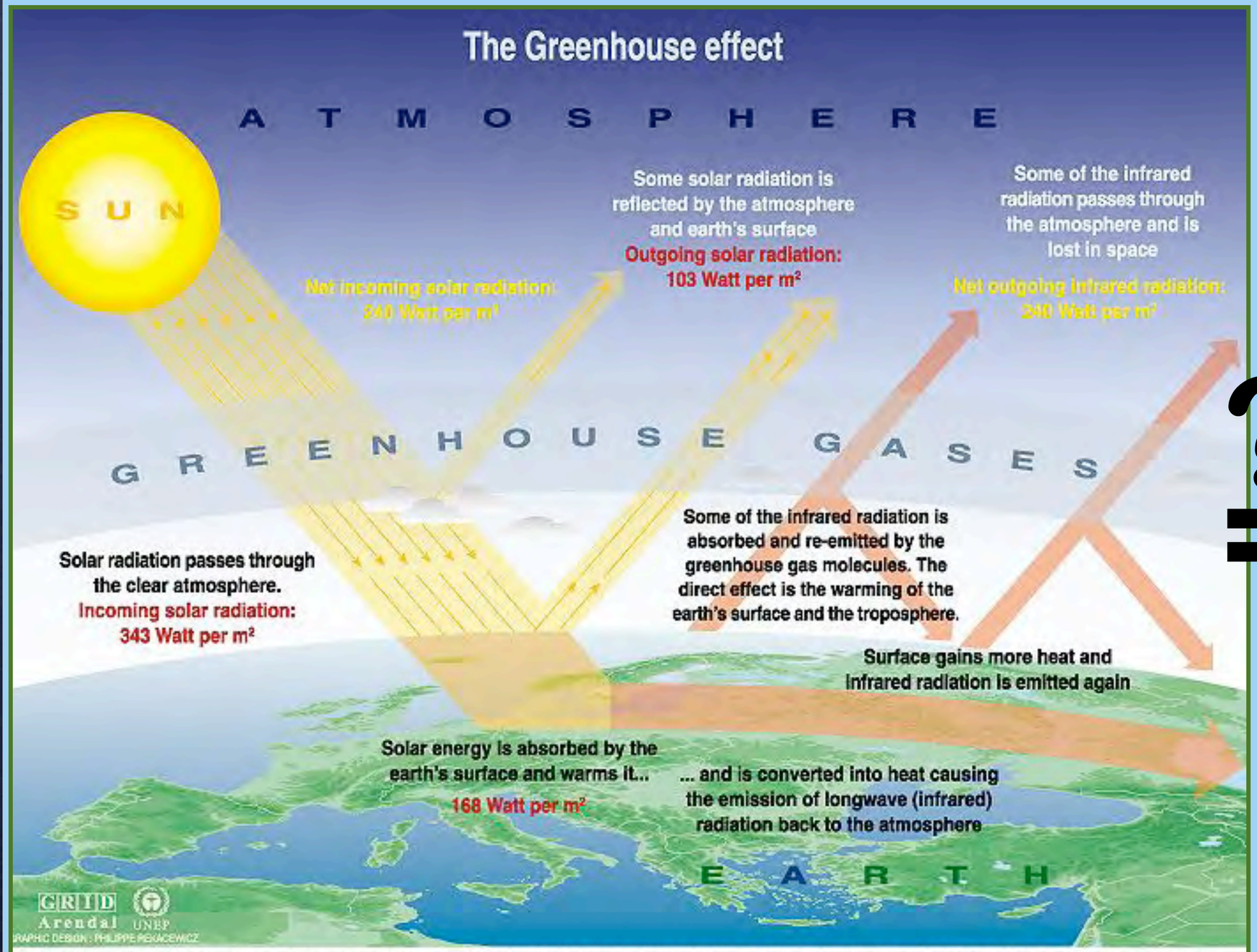
NO SUCH THING

as

"BAD SCIENCE"!

5- Using Computer Models to imply Reality.

Some Tricks to fool the trusting and the unwary...



Sources: Okanagan university college in Canada, Department of geography, University of Oxford, school of geography; United States Environmental Protection Agency (EPA), Washington; Climate change 1995, The science of climate change, contribution of working group 1 to the second assessment report of the intergovernmental panel on climate change, UNEP and WMO, Cambridge university press, 1996.

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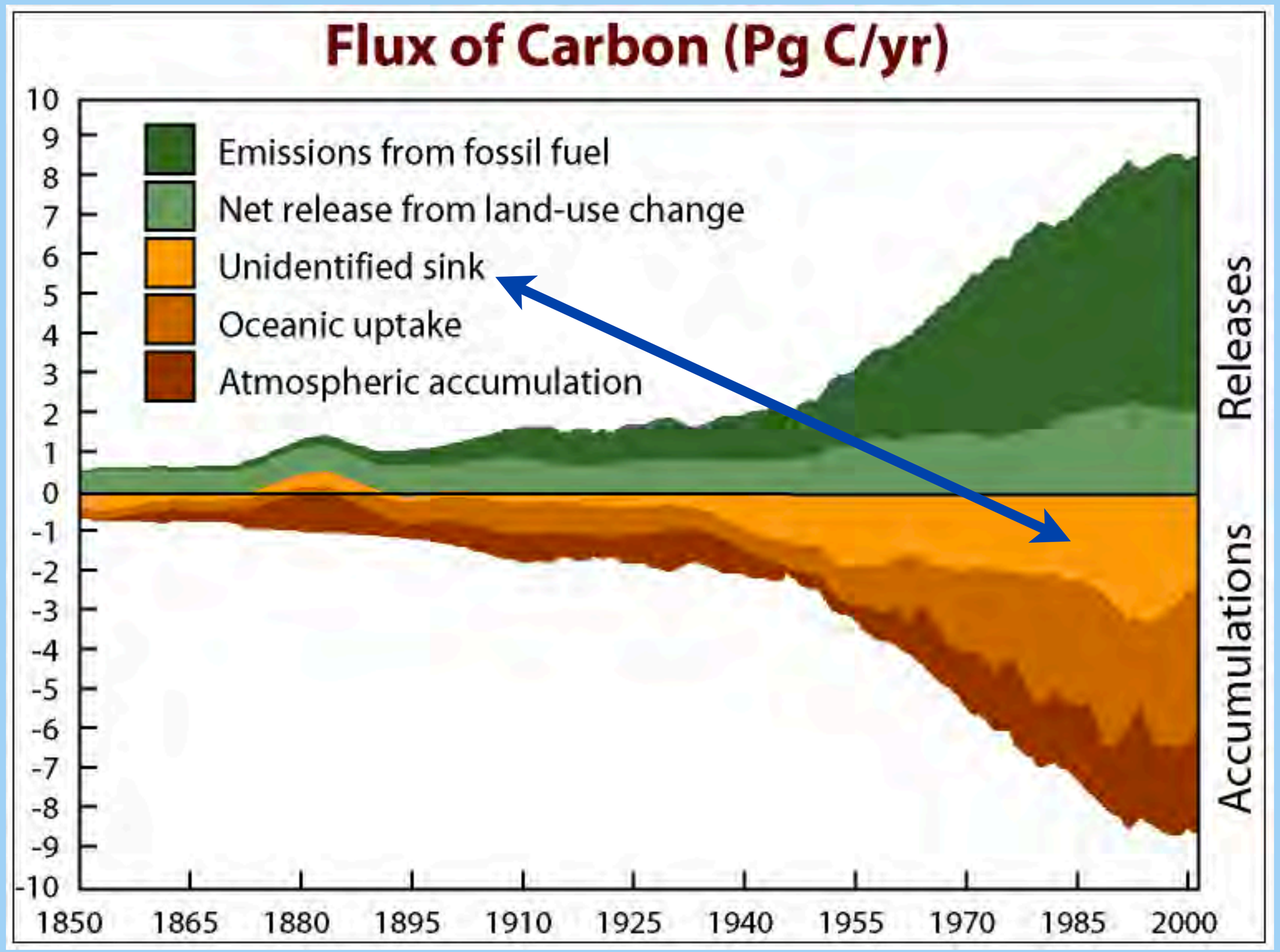
Some Tricks to fool the trusting and the unwary...



Some Tricks to fool the trusting and the unwary...

Seductive Simulations?

Uncertainty Distribution Around Climate Models

Interviewer: Do modelers come to think of their models as reality?

Modeler A: Yes! Yes. You have to constantly be careful about that [*laughs*].

You spend a lot of time working on something, and you are really trying to do the best job you can of simulating what happens in the real world. It is easy to get *caught up in it*; you start to believe that what happens in your model *must be what happens* in the real world. And often that is not true . . .

Some Tricks to fool the trusting and the unwary...

Forbes

Patrick Michaels, Contributor

At the interface of public science and public policy

OP/ED | 12/18/2012 @ 1:13PM | 3,852 views

The UN's Global Warming Forecasts Are Performing Very, Very Badly

Some Tricks to fool the trusting and the unwary...

SATURDAY, MARCH 7, 2009

Computer models and cognitive failure

One of the more mordantly amusing aspects of the current credit crisis is the massive failure of relying on computer models for assessing risk. A failure that was quite comprehensive:

> In fact, most Wall Street computer models radically underestimated the risk of the complex mortgage securities ... The people who ran the financial firms chose to program their risk-management systems with overly optimistic assumptions and to feed them oversimplified data. This kept them from sounding the alarm early enough.

Some Tricks to fool the trusting and the unwary...

SATURDAY, MARCH 7, 2009

Computer models and cognitive failure (*continued*)

Financial institutions used highly sophisticated computer models, put together by highly-paid people using masses of data based on what was taken to the most up-to-date understanding of how things work. All of which gave the output of the models huge credibility.

The problem was precisely that they had such credibility. In particular, their output was treated as empirical evidence: as telling people about the state of their risk exposure.

They did nothing of the kind. All they did—all computer models can ever do—is tell you the consequences of your premises, both empirical and analytical/causal. They do not tell you about how the world *is*. They tell you about how you *think* the world is. One can then test your thinking about the world by comparing what your model(s) churn out to how the world turns out to be.

6- Using Selective Data to imply Actuality.

Some Tricks to fool the trusting and the unwary...

Statisticians can prove almost anything, a new study finds

JOSEPH BREAN | Nov 20, 2011 7:25 PM ET

Like 1k Send Twitter Google+ LinkedIn Email Comments More

Catchy headlines about the latest counter-intuitive discovery in human psychology have a special place in journalism, offering a quirky distraction from the horrors of war and crime, the tedium of politics and the drudgery of economics.

But even as readers smirk over the latest gee whizzery about human nature, it is generally assumed that behind the headlines, in the peer-reviewed pages of academia, most scientists are engaged in sober analysis of rigorously gathered data, and that this leads them reliably to the truth.

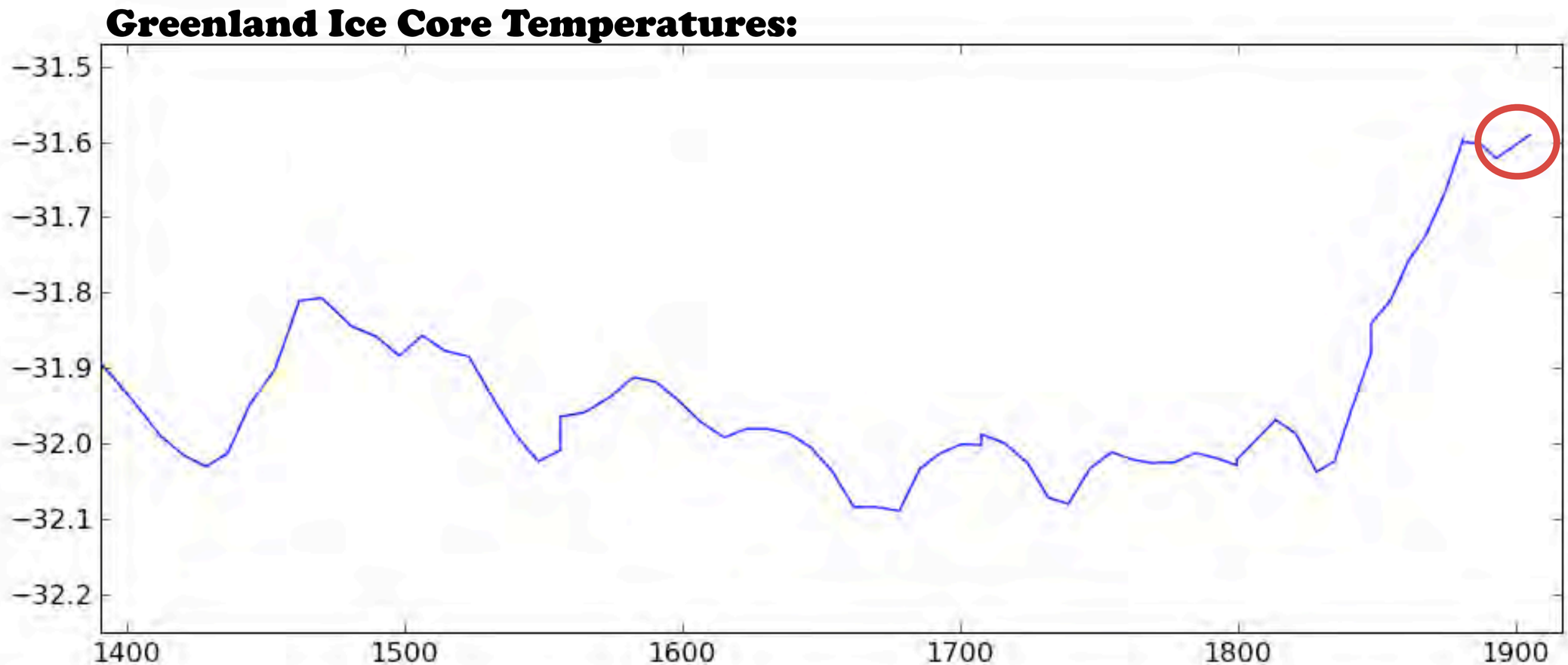
Not so, says a new report in the journal *Psychological Science*, which claims to show "how unacceptably easy it is to accumulate (and report) statistically significant evidence for a false hypothesis."

Seeing the WHOLE Picture is Critical.

Let's Look at Some Graphs
of Greenland Ice Core Temperatures.

Some Tricks to fool the trusting and the unwary...

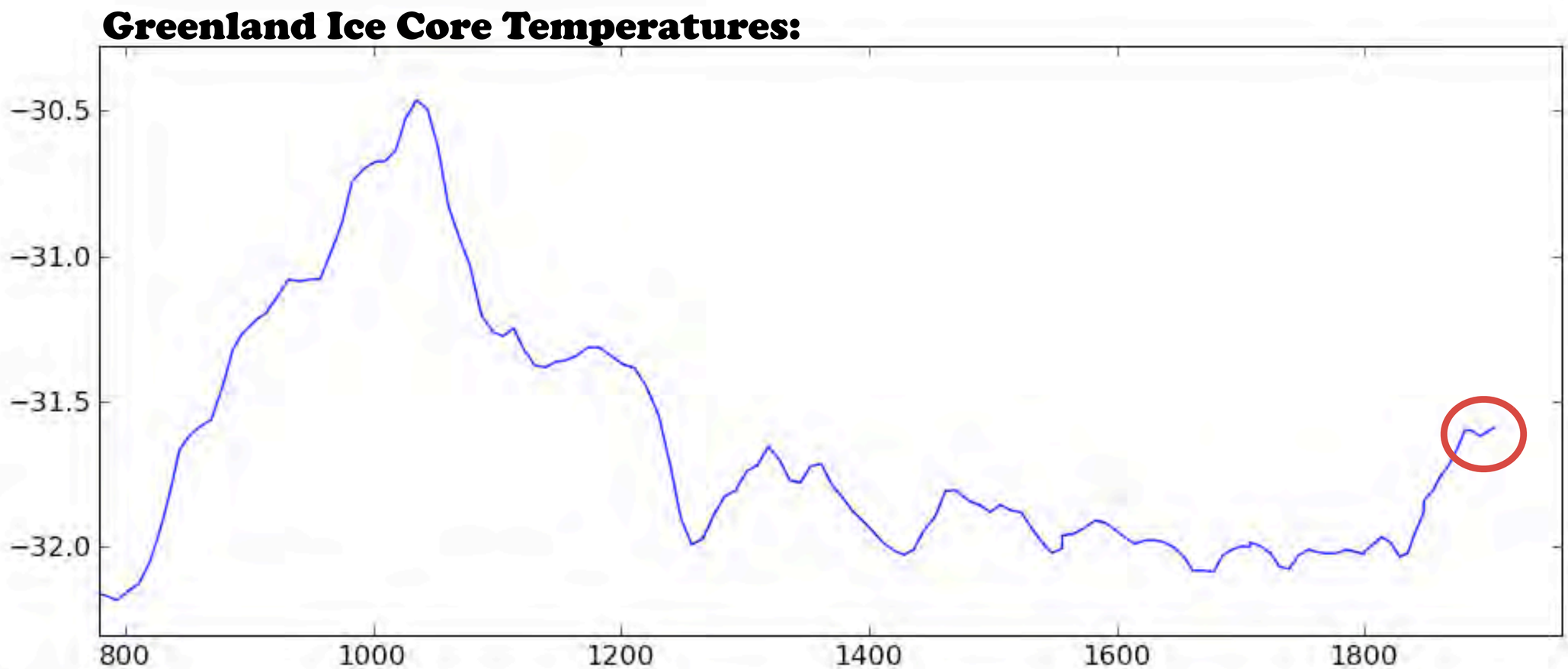
Graph #1: Last 600± Years



Conclusion: Things are Getting BAD

Some Tricks to fool the trusting and the unwary...

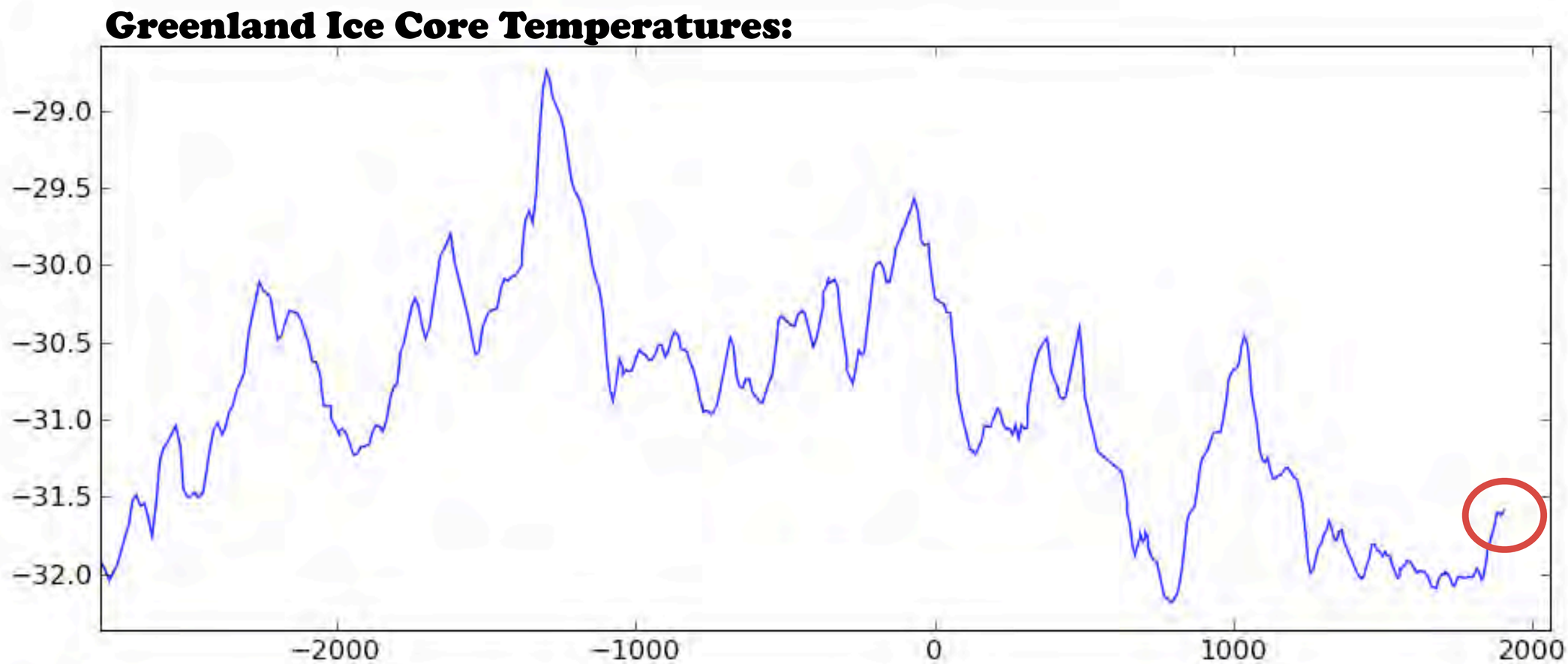
Graph #2: Last 1,200± Years



Conclusion: Oh. Maybe it's not really so bad.

Some Tricks to fool the trusting and the unwary...

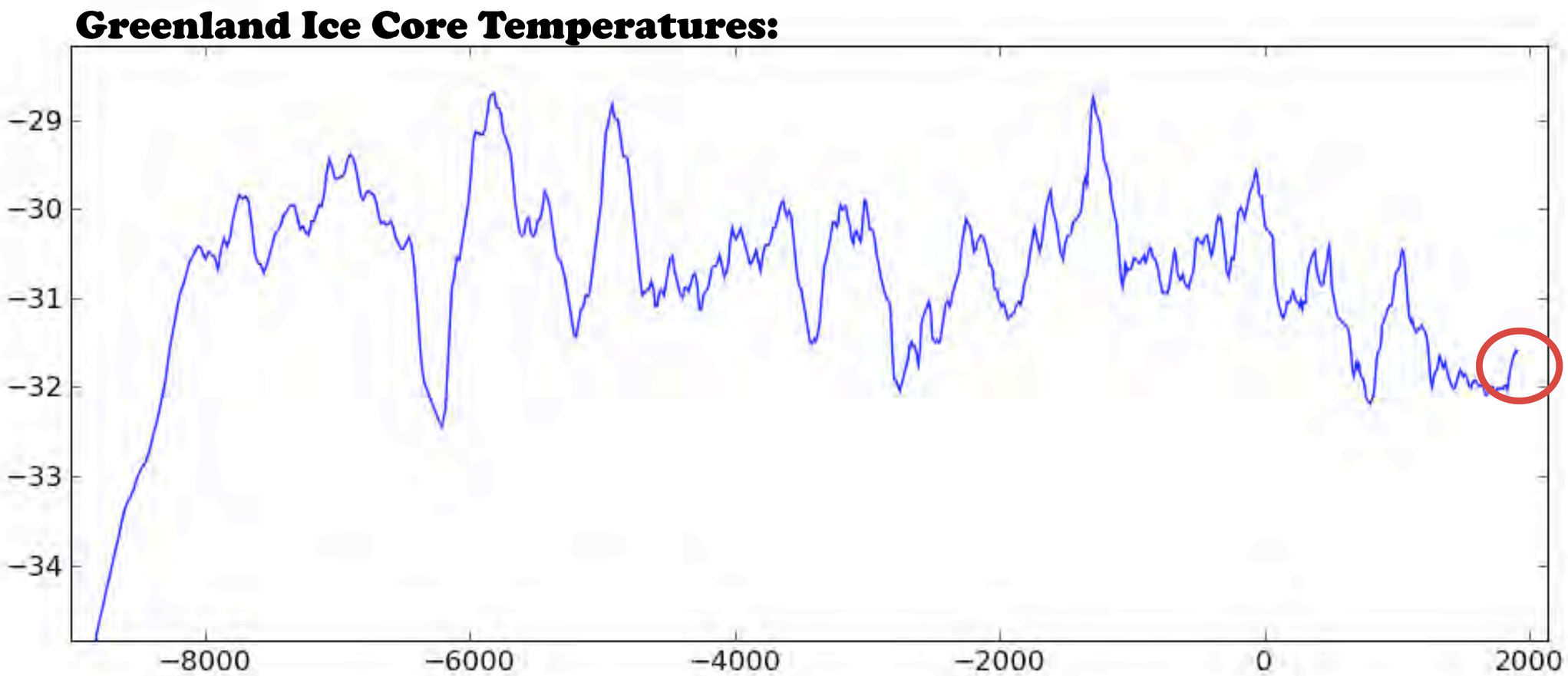
Graph #3: Last 5,000± Years



Conclusion: Wow. We're really in GOOD shape.

Some Tricks to fool the trusting and the unwary...

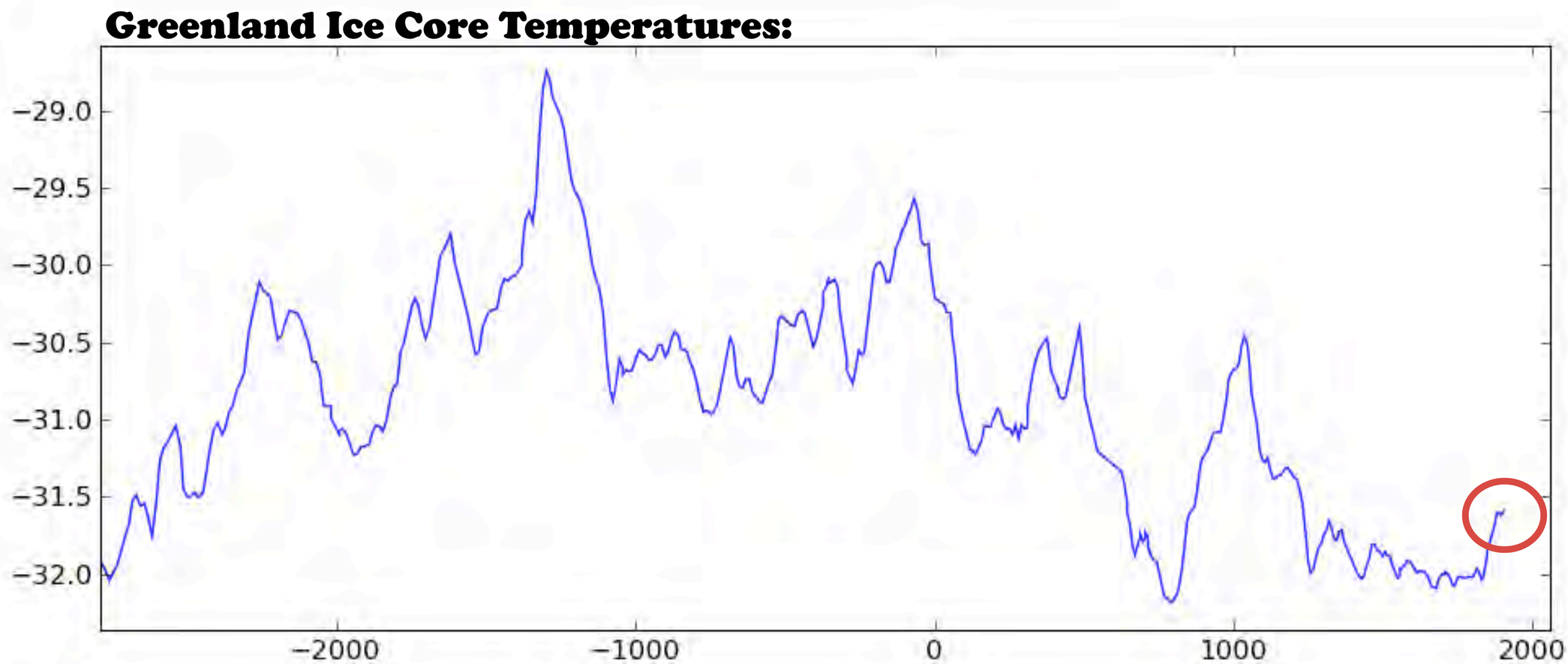
Graph #4: Last 10,000± Years



Conclusion: We're actually at a LOW point.

Some Tricks to fool the trusting and the unwary...

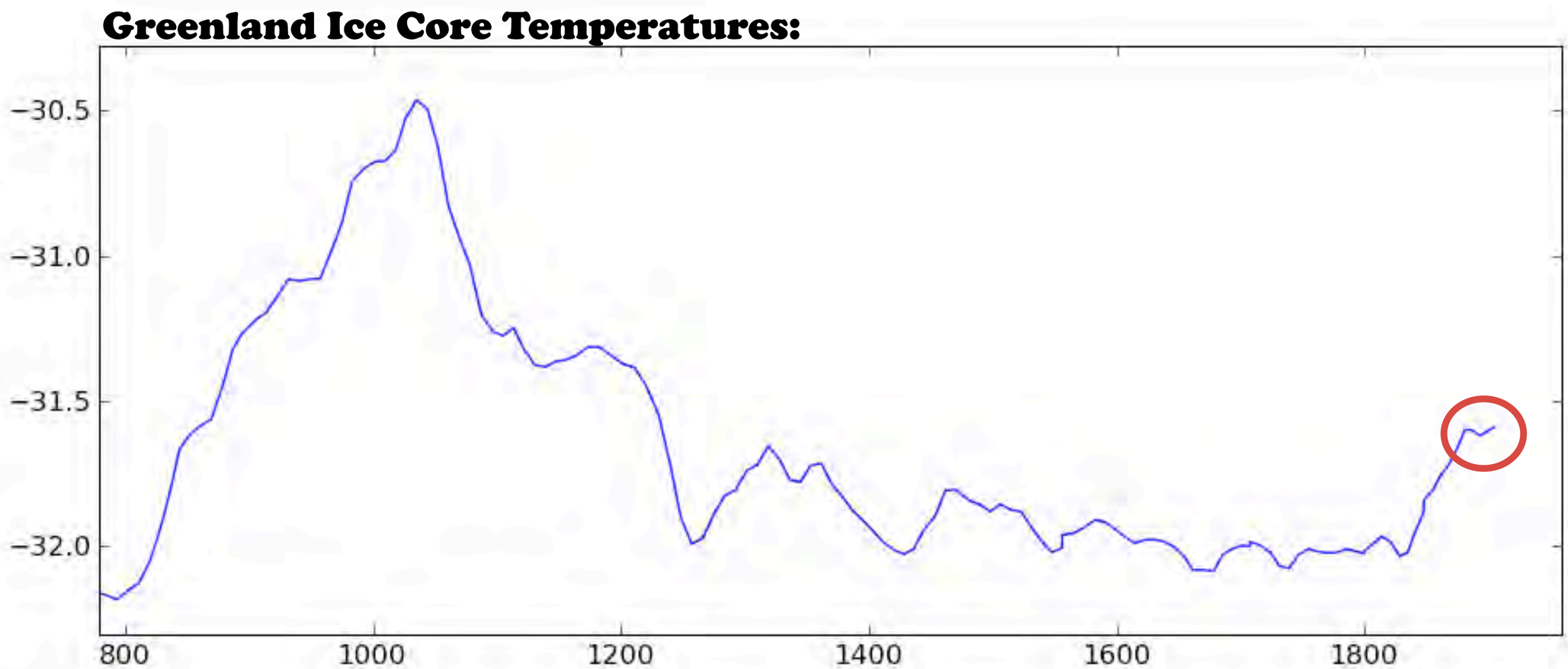
Graph #3: Last 5,000± Years



Will this make people afraid? ***Not Likely.***

Some Tricks to fool the trusting and the unwary...

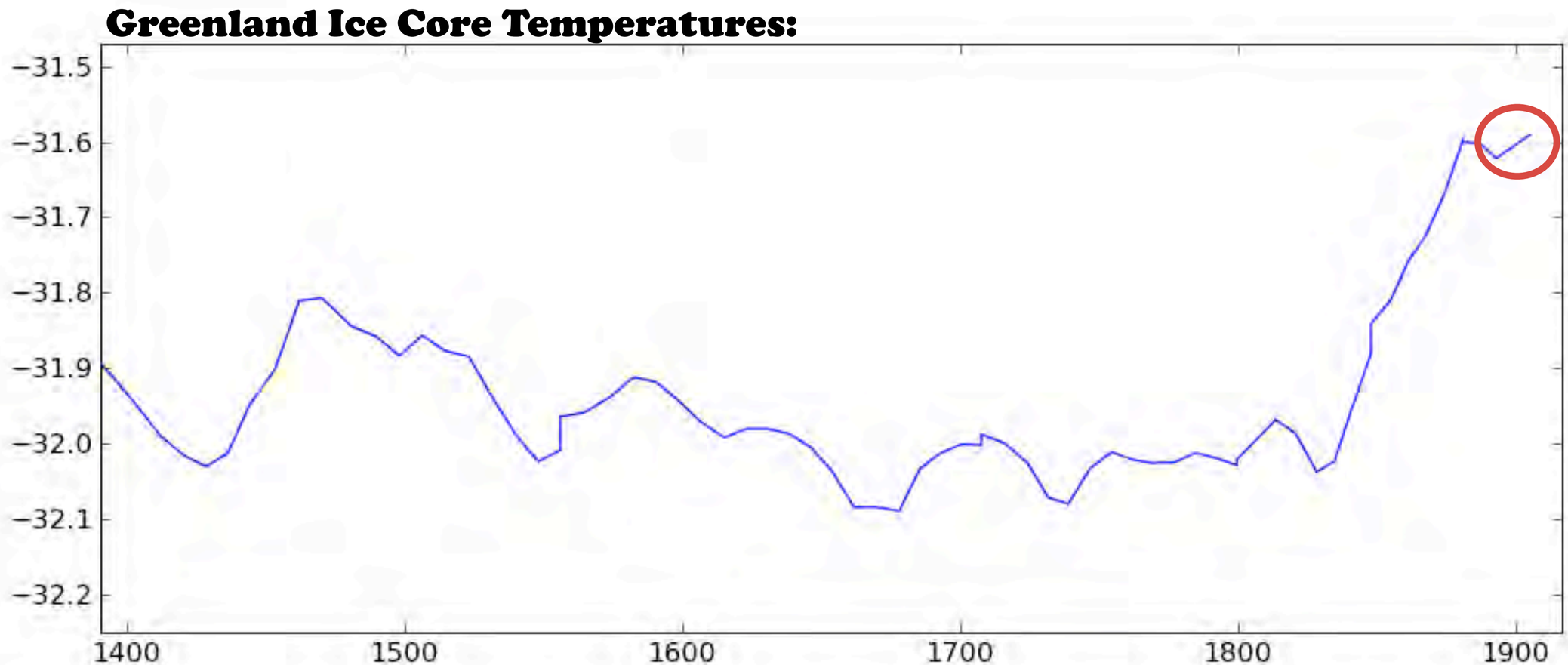
Graph #2: Last 1,200± Years



Will this make people afraid? *Doubt it.*

Some Tricks to fool the trusting and the unwary...

Graph #1: Last 600± Years



Will this make people afraid? ***Probably so!***

Seeing the WHOLE Picture is Critical.

Let's Quickly Look
at Offshore Wind Energy Job Claims.

Some Tricks to fool the trusting and the unwary...

The Sales Pitch:

Why Offshore Wind?

JOBS

It is estimated that developing 2,500 MW of offshore wind would create over 10,000 construction jobs and 2,000 long-term operations and maintenance jobs, in addition to jobs associated with future manufacturing exports to other markets.

Some Tricks to fool the trusting and the unwary...

UK misses out as foreign firms and workers do bulk of windfarm work

Amid promises of more contracts, Danish operator puts the blame partly on the lack of manufacturers in Britain

Terry Macalister
The Guardian, Tuesday 28 February 2012
Article history

Walney offshore windfarm, located 10 miles off Cumbria in the Irish Sea. Photograph: Jeff J Mitchell/Getty Images

Britain is leading the world in the building of windfarms off its coastline but the "green revolution" appears to be largely working in favour of foreign firms.

The Danish operator of the world's biggest offshore windfarm, off Cumbria is the latest to come under fire for favouring foreign suppliers and allegedly providing "negligible" work or services to local UK companies.

Offshore Wind Jobs Reality Check #1

"Britain is leading the world in building wind projects off its coastline… but this has provided 'negligible' work or services to UK companies."

Some Tricks to fool the trusting and the unwary...

Offshore Wind Jobs Reality Check #2

Los Angeles Times

Wind energy job growth isn't blowing anyone away

Despite record growth in generating capacity, the industry is creating few employment opportunities overall.

February 02, 2010 | By Jim Tankersley

Reporting from Washington — America's wind energy industry enjoyed a banner year in 2009, thanks largely to tax credits and other incentives packed into the $787-billion economic stimulus bill.

But even though a record 10,000 megawatts of new generating capacity came on line, few jobs were created overall and wind power manufacturing employment, in particular, fell -- a setback for President Obama's pledge to create millions of green jobs.

"Even though a record of new capacity came online, few jobs were created overall, and wind manufacturing employment fell..."

Some Tricks to fool the trusting and the unwary...

Offshore Wind Jobs Reality Check #3

ACADIAN CONSULTING GROUP

Assessment of the Net Economic Benefits of the Proposed Fishermen's Atlantic City Windfarm

Prepared for the New Jersey Division of Rate Counsel
February 3, 2012

David E. Dismukes, Ph.D.
Acadian Consulting Group

Some Tricks to fool the trusting and the unwary...

ACADIAN CONSULTING GROUP

Appendix 6. Project Economic Impacts

Economic Impacts of Rates – Jobs

The FACW project will lead to considerable rate increases, which in turn, reduce economic activity and employment opportunities.

Increases in rates created by the FACW OREC proposal will lead to a reduction in New Jersey employment of 864 to 2000 jobs per year. In total, the rate increases created by the FACW OREC proposal will likely lead to a cumulative employment loss of almost 30,000 jobs-years.

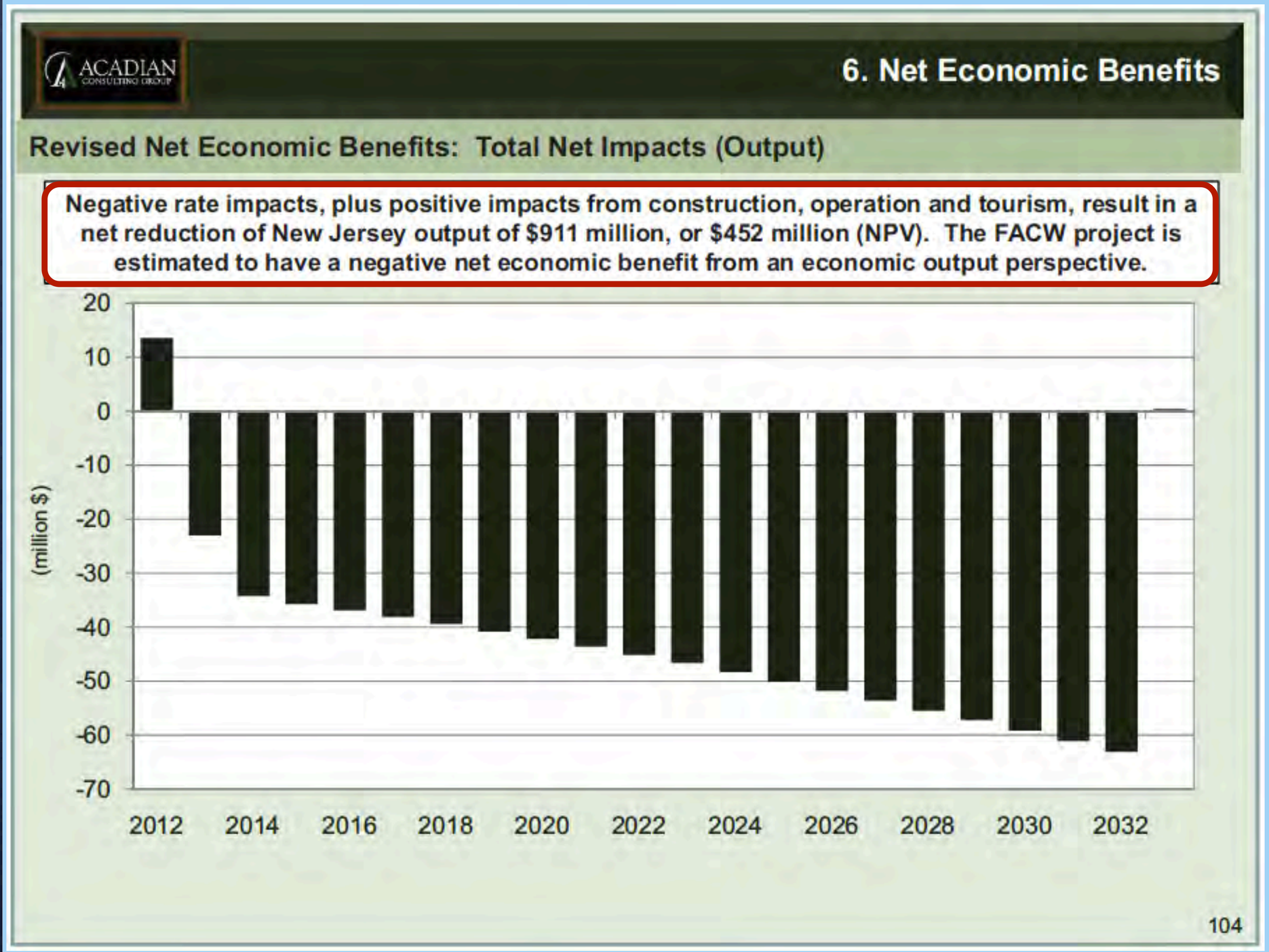
Economic Impact (Rates) - Jobs (number of jobs)

Year	Residential Rates				Commercial Rates				Industrial Rates				Total Rate Impact			
	Direct	Indirect	Induced	Total	Direct	Indirect	Induced	Total	Direct	Indirect	Induced	Total	Direct	Indirect	Induced	Total
2013	(735)	-	(28)	(763)	(53)	(18)	(22)	(92)	(3)	(3)	(2)	(8)	(790)	(22)	(52)	(864)
2014	(952)	-	(36)	(988)	(69)	(24)	(28)	(120)	(3)	(4)	(3)	(11)	(1,023)	(28)	(67)	(1,119)
2015	(988)	-	(38)	(1,025)	(72)	(25)	(29)	(126)	(3)	(4)	(3)	(11)	(1,063)	(29)	(70)	(1,162)
2016	(1,019)	-	(39)	(1,058)	(74)	(26)	(30)	(131)	(4)	(4)	(3)	(11)	(1,097)	(30)	(73)	(1,200)
2017	(1,050)	-	(40)	(1,090)	(77)	(27)	(32)	(135)	(4)	(5)	(3)	(12)	(1,130)	(31)	(75)	(1,237)
2018	(1,083)	-	(41)	(1,124)	(80)	(28)	(33)	(141)	(4)	(5)	(4)	(12)	(1,167)	(33)	(78)	(1,277)
2019	(1,120)	-	(43)	(1,163)	(83)	(29)	(34)	(146)	(4)	(5)	(4)	(13)	(1,207)	(34)	(80)	(1,322)
2020	(1,155)	-	(44)	(1,199)	(86)	(30)	(35)	(152)	(4)	(5)	(4)	(13)	(1,246)	(35)	(83)	(1,364)
2021	(1,191)	-	(45)	(1,236)	(90)	(31)	(37)	(158)	(4)	(5)	(4)	(13)	(1,285)	(36)	(86)	(1,407)
2022	(1,230)	-	(47)	(1,277)	(93)	(33)	(38)	(164)	(4)	(5)	(4)	(14)	(1,328)	(38)	(89)	(1,455)
2023	(1,268)	-	(48)	(1,317)	(97)	(34)	(40)	(170)	(4)	(6)	(4)	(14)	(1,369)	(39)	(92)	(1,501)
2024	(1,310)	-	(50)	(1,360)	(101)	(35)	(41)	(177)	(5)	(6)	(4)	(15)	(1,416)	(41)	(95)	(1,552)
2025	(1,356)	-	(52)	(1,408)	(105)	(37)	(43)	(184)	(5)	(6)	(4)	(15)	(1,466)	(42)	(99)	(1,608)
2026	(1,401)	-	(53)	(1,454)	(109)	(38)	(45)	(192)	(5)	(6)	(5)	(16)	(1,515)	(44)	(103)	(1,661)
2027	(1,447)	-	(55)	(1,502)	(113)	(40)	(46)	(199)	(5)	(6)	(5)	(16)	(1,565)	(46)	(106)	(1,717)
2028	(1,493)	-	(57)	(1,550)	(118)	(41)	(48)	(207)	(5)	(6)	(5)	(17)	(1,616)	(48)	(110)	(1,773)
2029	(1,536)	-	(59)	(1,595)	(122)	(42)	(50)	(214)	(5)	(7)	(5)	(17)	(1,664)	(49)	(113)	(1,826)
2030	(1,586)	-	(60)	(1,647)	(127)	(44)	(52)	(223)	(6)	(7)	(5)	(18)	(1,718)	(51)	(117)	(1,887)
2031	(1,635)	-	(62)	(1,697)	(131)	(46)	(54)	(231)	(6)	(7)	(5)	(18)	(1,772)	(53)	(121)	(1,946)
2032	(1,685)	-	(64)	(1,749)	(136)	(48)	(56)	(240)	(6)	(7)	(5)	(19)	(1,827)	(55)	(125)	(2,007)
2033	(15)	-	(1)	(16)	(1)	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(16)	(0)	(1)	(18)
Total	**(25,254)**	**-**	**(962)**	**(26,216)**	**(1,937)**	**(675)**	**(793)**	**(3,405)**	**(88)**	**(110)**	**(83)**	**(281)**	**(27,280)**	**(785)**	**(1,837)**	**(29,902)**

Conclusion:

Net is 30,000 job-years <u>lost</u>!

Some Tricks to fool the trusting and the unwary...



Conclusion:

Net is $900± Million <u>lost</u>!

7- Using PNS to imply better Science.

Some Tricks to fool the trusting and the unwary...

Post-normal science

A new concept of science was introduced by Funtowicz and Ravetz during the 1990s...The concept of post-normal science goes beyond the traditional assumptions that science is both certain and value-free...The exercise of scholarly activities is defined by the dominance of goal orientation where *scientific goals are controlled by political or societal actors*...Scientists' *integrity* lies not in disinterestedness but in their *behaviour as stakeholders*. Normal science made the world believe that scientists should and could provide certain, objective factual information... The guiding principle of normal science - the goal of achievement of factual knowledge - *must be modified* to fit the post-normal principle... For this purpose, post-normal scientists should be capable of establishing extended peer communities and allow for 'extended facts' from non-scientific experts...In post-normal science, the maintenance and enhancement of quality, rather than the establishment of factual knowledge, is the key task of scientists... Involved social actors must agree on the definition of *perceptions, narratives, interpretation of models, data and indicators*...scientists have to contribute to society by learning as quickly as possible about different perceptions...*instead of seeking deep ultimate knowledge*.

"Post Normal Science" is bogus science.

Post-Normal Science is a concept attempting to characterize a methodology of inquiry that is appropriate for cases where:

"facts are uncertain,
values are in dispute,
stakes are high, and
decisions are urgent."

Some Tricks to fool the trusting and the unwary...

"Post Normal Science" is bogus science.

SPECIAL FEATURE: Postmodern science - a contradiction in terms

The ideal of scientific objectivity has been subverted — even in the world's most prestigious universities — by the pernicious and pervasive influence of postmodernism, laments scientist ***Dr Walter Starck****.*

Over recent decades a few widely publicised instances of scientific misconduct have occasioned much concern. All have involved fabrication or misrepresentation of data in the highly competitive big budget area of biomedical research.

Remarkably, however, in some other areas of research, similar and often even more egregious breaches of scientific ethics have become such common practice as to pass without comment. In such areas the ideal of scientific objectivity has been abandoned for overt advocacy, with cherry-picking, misrepresentation and suppression of data becoming near normal.

Moreover, any attempt to question such claims is met not with reasoned argument but appeals to authority, claims of expert consensus and personal denigration. How this gross departure from what were once core scientific values deserves consideration.

Some Tricks to fool the trusting and the unwary...

"Post Normal Science" is bogus science.

posted on December 27, 2012 by Philip Hodges Filed Under Environment, First Amendment, Law, Technology

Professor: Global Warming "Deniers" Should be Executed

So what did this professor actually say? You can read his entire rant here. Here's an excerpt from the beginning:

> "In this article I am going to suggest that the death penalty is an appropriate punishment for influential GW [global warming] deniers. But before coming to this surprising conclusion, please allow me to explain where I am coming from."

He then goes on to explain that he's actually opposed to the imposition of the death penalty in general. He doesn't believe that everyday murderers should receive such a "barbaric" sentence, that not even mass murderers deserve it. He

8- Using PP to imply Reasonableness.

Some Tricks to fool the trusting and the unwary...

Q. What is the precautionary principle?

A. The **1998 Wingspread Statement** on the Precautionary Principle summarizes the principle this way:

> "When an activity raises threats of harm to the environment or human health, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically."

All statements of the Precautionary Principle contain a version of this formula: *When the health of humans and the environment is at stake, it may not be necessary to wait for scientific certainty to take protective action.*

Some Tricks to fool the trusting and the unwary...

The Problems with Precaution: A Principle Without Principle

By Jonathan H. Adler
Wednesday, May 25, 2011
Filed under: Big Ideas, Economic Policy, Government & Politics, Science & Technology

'Better safe than sorry' isn't always safer. In fact, when it comes to policies to protect public health and the environment, this type of thinking could harm us.

"The Precautionary Principle allows regulatory agencies to shape and influence policy decisions that have little or no scientific substantiation."

Some Tricks to fool the trusting and the unwary...

Challenging the precautionary principle

How has society come to be governed by the maxim 'better safe than sorry'?

by **Helene Guldberg**

But the precautionary principle does not merely ask us to hypothesise about and try to predict outcomes of particular actions, whether these outcomes are positive or negative. Rather, it demands that we take regulatory action on the basis of possible 'unmanageable' risks, even after tests have been conducted that find no evidence of harm. We are asked to make decisions to curb actions, not on the basis of what we know, but on the basis of what we do not know.

Some Tricks to fool the trusting and the unwary...

No time for 'science' to be completed on Northern Gateway review: critics

Not Enough Time? How to Stop The Illusion

9- Using Engineering to Replace Science.

A Simplified Summary –

Science:

Proves principles

Engineering:

Applies Proven principles

This implies a proper sequence

Science —> Engineering

What Happens When Engineering gets ahead of Science?

When We Are Presented With Technical Options...

the appropriate initial question is:

"<u>SHOULD</u> We Do This?"

(i.e. *does it make sense to do this*?)

This looks at problems from a **SCIENCE** perspective.

The anti-science proponents have changed the initial question to:

"<u>CAN</u> We Do This?"

This looks at problems from an **ENGINEERING** perspective.

Some Tricks to fool the trusting and the unwary...

Of course the answer is always:

"Sure, We Can Do It!"

This change from a **SCIENCE** perspective to an **ENGINEERING** one, is a subtle but profound alteration.

The focus is then almost entirely on *implementation*, so almost no one really cares about the **cost** or **sensibility**.

10-Claiming the mantle of Science — yet being anything but.

Some Tricks to fool the trusting and the unwary...

NEWS / OPINION

General Assembly tries to tackle sea level rise by outlawing facts

Posted by Erin Tracy-Blackwood on Fri, Jun 29, 2012 at 12:18 PM

Science costing you money? Outlaw it!

A bill circulating the North Carolina General Assembly would require the state to use only historical data when calculating sea-level rise, instead of using climate scientists' current projections. They predict the shoreline will be three feet underwater by the end of that century.

That doesn't jive with real estate developers, who seem to have crafted H819. They would like to build lovely and expensive homes along the shoreline and aren't about to let inevitable natural events get in the way of their profits. They are going to handle this like Americans and tell Planet Earth its sea level whims aren't welcome in the zoning and regulatory process.

Some Tricks to fool the trusting and the unwary...

N. Carolina lawmakers reject sea level rise predictions

Wed Jul 4, 2012 1:59am IST

* Vote by Republican majority backed by real estate developers

* Panel of scientists projected big rise based on seven studies

* Democrats say vote makes state an object of ridicule

* Governor could veto measure, inviting legislative override

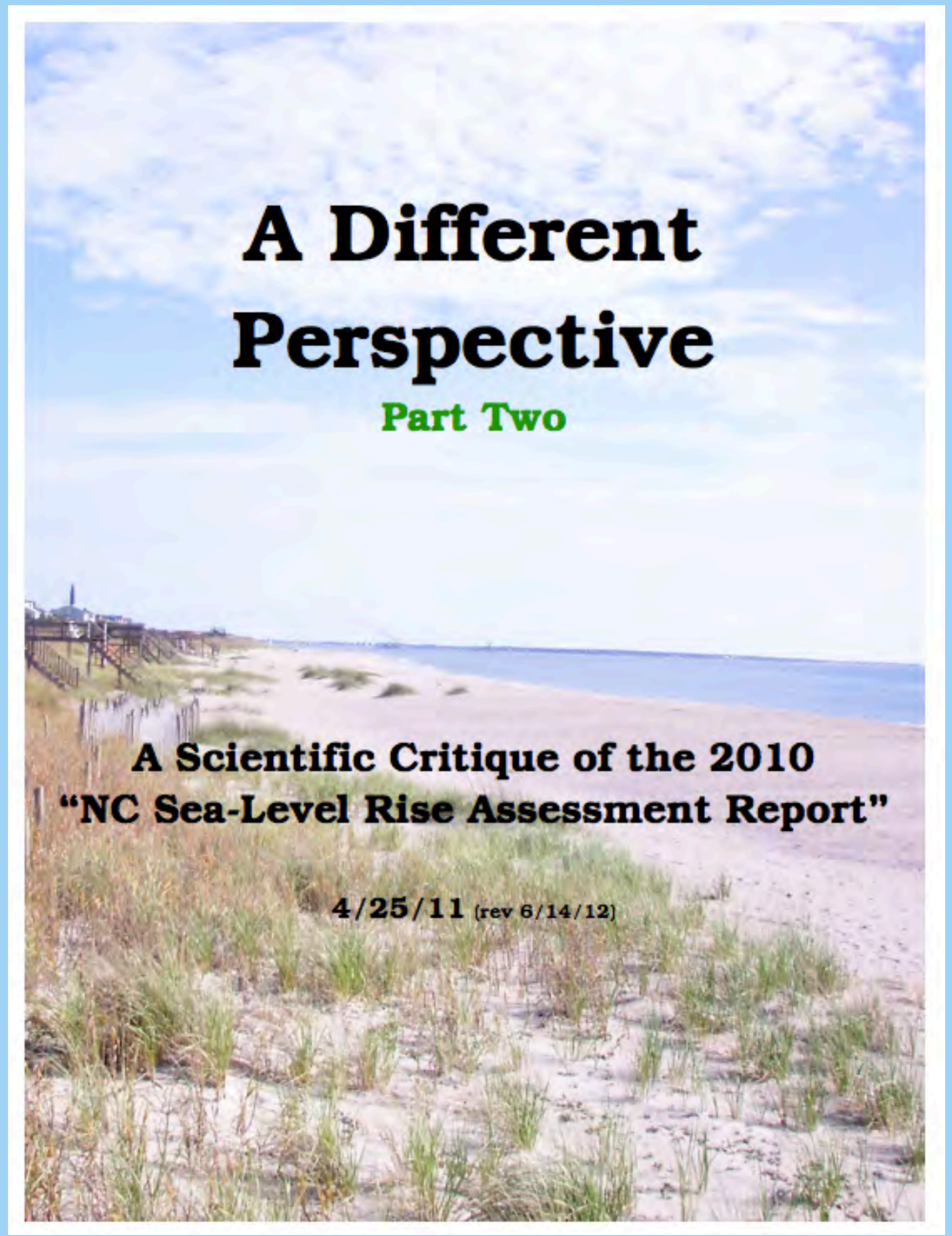
By Wade Rawlins

RALEIGH, N.C., July 3 (Reuters) - Lawmakers in North Carolina, which has a long Atlantic Ocean coastline and vast areas of low-lying land, voted on Tuesday to ignore studies predicting a rapid rise in sea level due to climate change and postpone planning for the consequences.

Opponents of the measure said it was a case of legislators "putting our heads in the sand" to avoid acknowledging the possible effects of global warming.

Backed by real estate developers, the Republican-led General Assembly passed a law requiring that projected rates of sea level rise be calculated on historical trends and not include accelerated rates of increase.

Some Tricks to fool the trusting and the unwary...



Compare those articles to what actually happened:

a scientific critique from some 30 international sea level rise experts, where the words "real estate" or "economics" are not even mentioned.

Some Tricks to fool the trusting and the unwary...

the progressive pulse

Even as flat earthers deny sea level rise, the land disappears

Post on June 4, 2012 by Rob Schofield

Folks paying attention of late are aware that the marriage discrimination amendment isn't the only area in which North Carolina is provoking snickers and head slaps on a national level. Another is our extreme and right-wing General Assembly's absurd effort to dictate to scientists which data they can and can't look at in assessing and predicting the sea-level rise that will take place along our coast over the next several decades.

(As an aside, if you want to see just how crazy the real estate developers and other self-appointed experts from the ideological right have become as they attempt tell actual scientists what to think and do on this critical subject, just wait a few hours until they start publishing some additional pieces of distorted "analysis" in the comments section below.)

Some Tricks to fool the trusting and the unwary...

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Tips & Tools For Activists

What Are the Implications of North Carolina Legislating Against Peer-reviewed Science on Sea-level Rise

Ask a Scientist - July 2012

In a nearly unprecedented move, the North Carolina Senate recently voted to prohibit agencies and towns from using the latest scientific data on sea-level rise in coastal management decisions. The state's house of representatives dialed back the proposal, but the bill—now adopted by both chambers—still refuses to accept a peer-reviewed scientific report commissioned by the state and prevents enactment of building standards and other rules that incorporate protections against rising sea levels until 2016. Union of Concerned Scientists' Senior Staff Writer Seth Shulman sat down for a Q & A session with ***Gretchen Goldman****, an analyst in the Scientific Integrity Program, to discuss the story and its implications.*

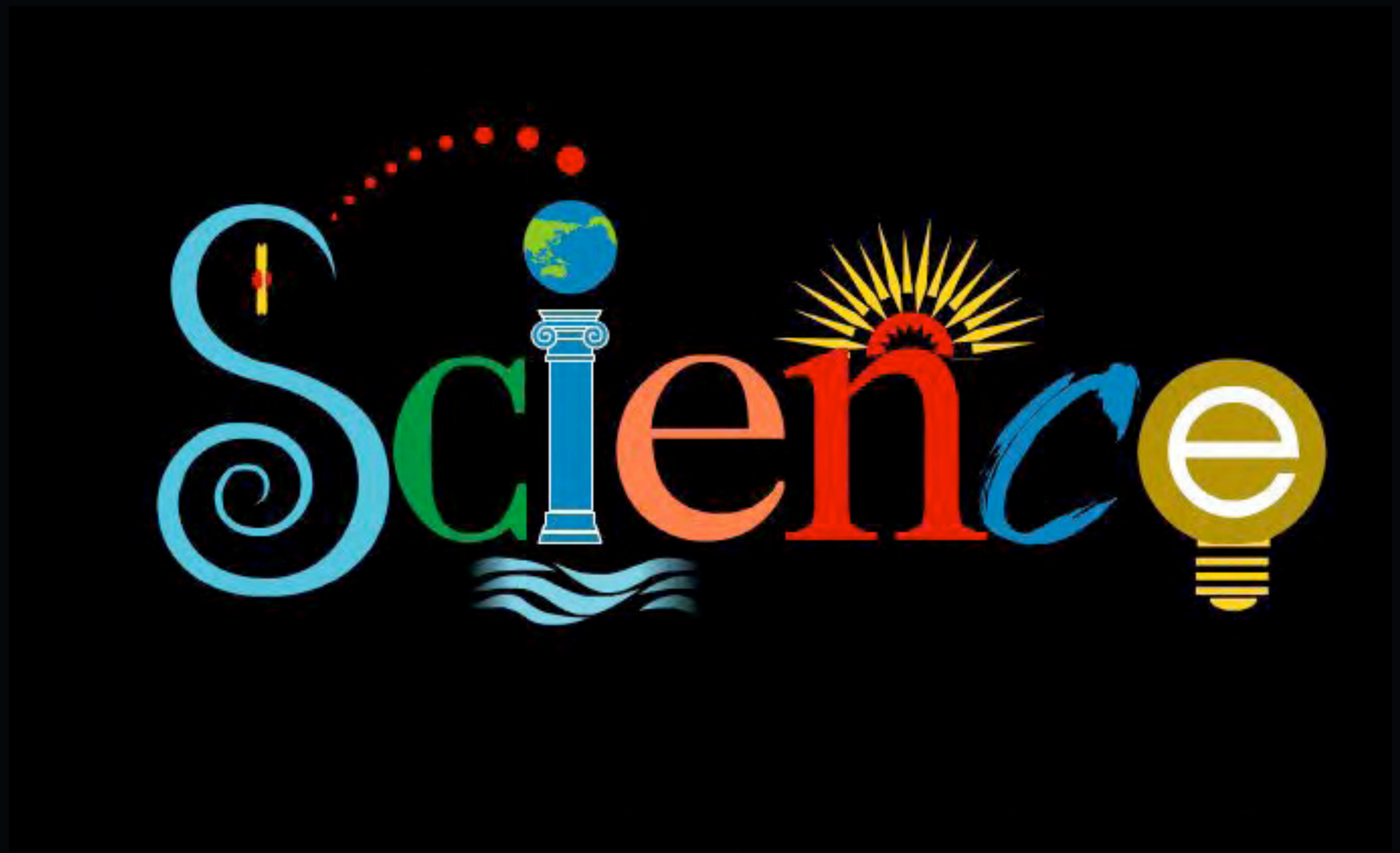
Some Tricks to fool the trusting and the unwary...

The reason that these agenda promoters use ALL these tactics

is that they know that

Real Science is the biggest threat they face!

Part 4:
Assuring A Compliant Populous



November 21, 2011

Ignorance Is Bliss When it Comes to Challenging Social Issues

By remaining unaware, people can justify trusting government, study finds

WASHINGTON—The less people know about important complex issues such as the economy, energy consumption and the environment, the more they want to avoid becoming well-informed, according to new research published by the American Psychological Association.

And the more urgent the issue, the more people want to remain unaware, according to a paper published online in APA's *Journal of Personality and Social Psychology*®.

¿No Comprende?

How Education is Deliberately Dumbing You Dowm

Posted 02/18/10

The other day I was talking to one of my two aides about how bad the public school system is in my town in New Hampshire. One of my son's friends, who is in 9th grade just like my son, couldn't add 1/4 + 1/4! My son had to tell his friend it equaled 1/2. How this friend will get through Algebra 1 is beyond me! He will probably end up with school tutors who give him the answers, like my son's step-sister.

"Shut up, you moron! Do as you've been told. It's for your own good!"

Avoid Teaching Critical Thinking.

What Is

CRITICAL THINKING?

***A thorough, open-minded, logical* effort**
to examine a claim,
in the light of applicable evidence.

One of the key ingredients of true science — *and critical thinking* — is

SKEPTICISM

Human Intelligence

Vinton G. Cerf Vice President and Chief Internet Evangelist, Google

Critical thinking. I couldn't imagine a more important skill to teach kids -- or for that matter, the rest of us, so that we are more thoughtful about what information we accept and then process and use.

The Telegraph

James Delingpole

James Delingpole is a writer, journalist and broadcaster who is right about everything. He is the author of numerous fantastically entertaining books, including his most recent work Watermelons: How the Environmentalists are Killing the Planet, Destroying the Economy and Stealing Your Children's Future, also available in the US, and in Australia as Killing the Earth to Save It. His website is www.jamesdelingpole.com.

Greenpeace: give me a child until he is seven...

McCLATCHY
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Posted on Tuesday, January 18, 2011

Study: Many college students not learning to think critically

Sara Rimer, The Hechinger Report | The Hechinger Report

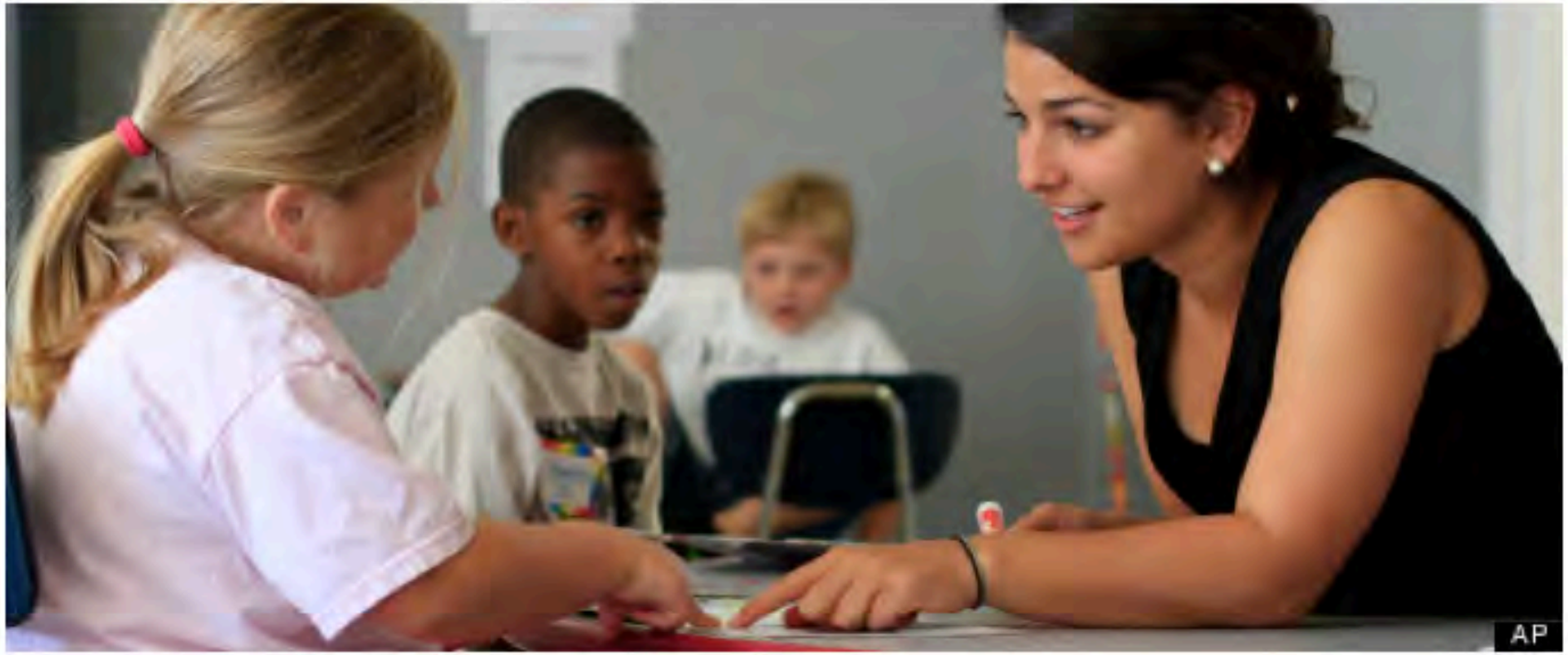
NEW YORK — An unprecedented study that followed several thousand undergraduates through four years of college found that large numbers didn't learn the critical thinking, complex reasoning and written communication skills that are widely assumed to be at the core of a college education.

Many of the students graduated without knowing how to sift fact from opinion, make a clear written argument or objectively review conflicting reports of a situation or event, according to New York University sociologist Richard Arum, lead author of the study. The students, for example, couldn't determine the cause of an increase in neighborhood crime or how best to respond without being swayed by emotional testimony and political spin.

Diminish the Importance and Quality of Science Education.

U.S. Students Still Lag Behind Foreign Peers, Schools Make Little Progress In Improving Achievement

Posted: 07/23/2012 12:51 pm Updated: 07/23/2012 5:51 pm



The study's findings echo years of rankings that show foreign students outpacing their American peers academically. Students in Shanghai who recently took international exams for the first time outscored every other school system in the world. In the same test, American students ranked 25th in math, 17th in science and 14th in reading.

A 2009 study found that U.S. students ranked 25th among 34 countries in math and science, behind nations like China, Singapore, South Korea, Hong Kong and Finland. Figures like these have groups like StudentsFirst, headed by former D.C. schools chancellor Michelle Rhee, concerned and calling for reforms to "our education system [that] can't compete with the rest of the world." **(See video below.)**

Average mathematics literacy, reading literacy, and science literacy scores of 15-year-olds, by sex and country.

Country or other jurisdiction	Mathematics literacy			Reading literacy			**Science literacy**		
	Total	Male	Female	Total	Male	Female	**Total**	Male	Female
1	2	3	4	5	6	7	8	9	10
OECD total\1	**484 (1.2)**	**489 (1.3)**	**478 (1.3)**	**484 (1.0)**	**466 (1.2)**	**502 (1.3)**	**491 (1.2)**	**492 (1.4)**	**490 (1.3)**
OECD average\2	**498 (0.5)**	**503 (0.7)**	**492 (0.6)**	**492 (0.6)**	**473 (0.7)**	**511 (0.7)**	**500 (0.5)**	**501 (0.7)**	**499 (0.6)**
Finland	548 (2.3)	554 (2.7)	543 (2.6)	547 (2.1)	521 (2.7)	572 (2.3)	563 (2.0)	562 (2.6)	565 (2.4)
Canada	527 (2.0)	534 (2.4)	520 (2.0)	527 (2.4)	511 (2.8)	543 (2.5)	534 (2.0)	536 (2.5)	532 (2.1)
Japan	523 (3.3)	533 (4.8)	513 (4.9)	498 (3.6)	483 (5.4)	513 (5.2)	531 (3.4)	533 (4.9)	530 (5.1)
New Zealand	522 (2.4)	527 (3.1)	517 (3.6)	521 (3.0)	502 (3.6)	539 (3.6)	530 (2.7)	528 (3.9)	532 (3.6)
Australia	520 (2.2)	527 (3.2)	513 (2.4)	513 (2.1)	495 (3.0)	532 (2.2)	527 (2.3)	527 (3.2)	527 (2.7)
Netherlands	531 (2.6)	537 (3.1)	524 (2.8)	507 (2.9)	495 (3.7)	519 (3.0)	525 (2.7)	528 (3.2)	521 (3.1)
Korea, Republic of	547 (3.8)	552 (5.3)	543 (4.5)	556 (3.8)	539 (4.6)	574 (4.5)	522 (3.4)	521 (4.8)	523 (3.9)
Germany	504 (3.9)	513 (4.6)	494 (3.9)	495 (4.4)	475 (5.3)	517 (4.4)	516 (3.8)	519 (4.6)	512 (3.8)
United Kingdom	495 (2.1)	504 (2.6)	487 (2.6)	495 (2.3)	480 (3.0)	510 (2.6)	515 (2.3)	520 (3.0)	510 (2.8)
Czech Republic	510 (3.6)	514 (4.2)	504 (4.8)	483 (4.2)	463 (5.0)	509 (5.4)	513 (3.5)	515 (4.2)	510 (4.8)
Switzerland	530 (3.2)	536 (3.3)	523 (3.6)	499 (3.1)	484 (3.2)	515 (3.3)	512 (3.2)	514 (3.3)	509 (3.6)
Austria	505 (3.7)	517 (4.4)	494 (4.1)	490 (4.1)	468 (4.9)	513 (5.5)	511 (3.9)	515 (4.2)	507 (4.9)
Belgium	520 (3.0)	524 (4.1)	517 (3.4)	501 (3.0)	482 (4.1)	522 (3.5)	510 (2.5)	511 (3.3)	510 (3.2)
Ireland	501 (2.8)	507 (3.7)	496 (3.2)	517 (3.5)	500 (4.5)	534 (3.8)	508 (3.2)	508 (4.3)	509 (3.3)
Hungary	491 (2.9)	496 (3.5)	486 (3.7)	482 (3.3)	463 (3.7)	503 (3.9)	504 (2.7)	507 (3.3)	501 (3.5)
Sweden	502 (2.4)	505 (2.7)	500 (3.0)	507 (3.4)	488 (4.0)	528 (3.5)	503 (2.4)	504 (2.7)	503 (2.9)
Poland	495 (2.4)	500 (2.8)	491 (2.7)	508 (2.8)	487 (3.4)	528 (2.8)	498 (2.3)	500 (2.7)	496 (2.6)
Denmark	513 (2.6)	518 (2.9)	508 (3.0)	494 (3.2)	480 (3.6)	509 (3.5)	496 (3.1)	500 (3.6)	491 (3.4)
France	496 (3.2)	499 (4.0)	492 (3.3)	488 (4.1)	470 (5.2)	505 (3.9)	495 (3.4)	497 (4.3)	494 (3.6)
Iceland	506 (1.8)	503 (2.6)	508 (2.2)	484 (1.9)	460 (2.8)	509 (2.3)	491 (1.6)	488 (2.6)	494 (2.1)
United States\3\	474 (4.0)	479 (4.6)	470 (3.9)	--- (†)	--- (†)	--- (†)	489 (4.2)	489 (5.1)	489 (4.0)
Slovak Republic	492 (2.8)	499 (3.7)	485 (3.5)	466 (3.1)	446 (4.2)	488 (3.8)	488 (2.6)	491 (3.9)	485 (3.0)
Spain	480 (2.3)	484 (2.6)	476 (2.6)	461 (2.2)	443 (2.6)	479 (2.3)	488 (2.6)	491 (2.9)	486 (2.7)
Norway	490 (2.6)	493 (3.3)	487 (2.8)	484 (3.2)	462 (3.8)	508 (3.3)	487 (3.1)	484 (3.8)	489 (3.2)
Luxembourg	490 (1.1)	498 (1.7)	482 (1.8)	479 (1.3)	464 (2.0)	495 (2.1)	486 (1.1)	491 (1.8)	482 (1.8)
Italy	462 (2.3)	470 (2.9)	453 (2.7)	469 (2.4)	448 (3.4)	489 (2.8)	475 (2.0)	477 (2.8)	474 (2.5)
Portugal	466 (3.1)	474 (3.7)	459 (3.2)	472 (3.6)	455 (4.4)	488 (3.5)	474 (3.0)	477 (3.7)	472 (3.2)
Greece	459 (3.0)	462 (4.3)	457 (3.0)	460 (4.0)	432 (5.7)	488 (3.5)	473 (3.2)	468 (4.5)	479 (3.4)
Turkey	424 (4.9)	427 (5.6)	421 (5.1)	447 (4.2)	427 (5.1)	471 (4.3)	424 (3.8)	418 (4.6)	430 (4.1)
Mexico	406 (2.9)	410 (3.4)	401 (3.1)	410 (3.1)	393 (3.5)	427 (3.0)	410 (2.7)	413 (3.2)	406 (2.6)

COLLEGIATETIMES

NEWS SPORTS FEATURES OPINIONS BLOGS SPOTLIGHT DATABASES CLASSIFIEDS

America falls behind in the education race

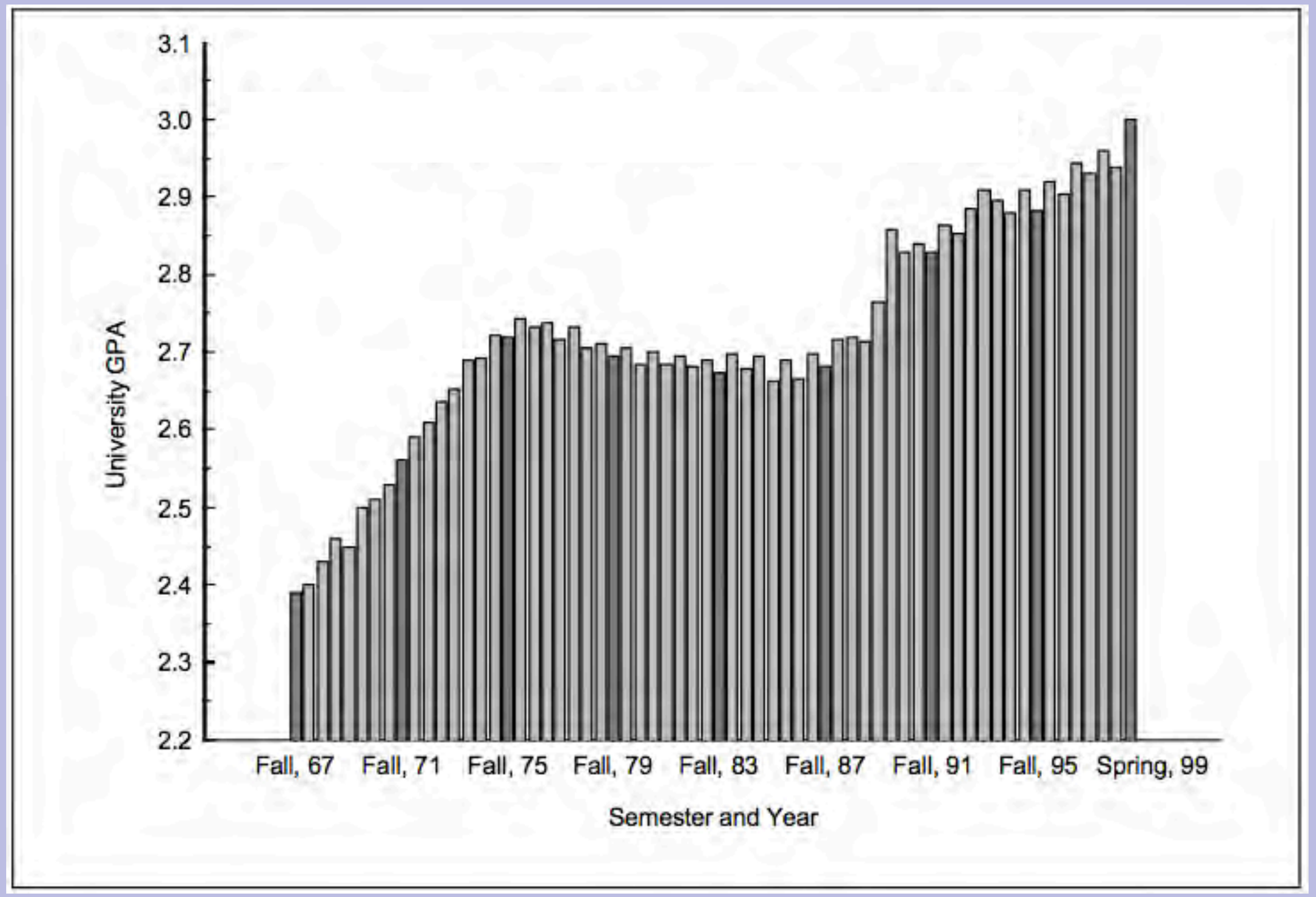
Tuesday, September, 20, 2011; 10:21 PM | 3 | ShareThis | Print

by Tyler Arthur, regular columnist

So What?

One study concluded that a modest improvement of US 15-year-olds' education, would mean a **$41 trillion increase in the US's GDP**.

Diminish the
Quality of Education,
using Grade Inflation.



Undergraduate Grade Point Average (GPA) at UNC Chapel Hill

June 25, 2012

To Stop Grade Inflation, Just Stop Inflating Grades

Douglas Paulin for The Chronicle

Enlarge Image

By Allison Friederichs

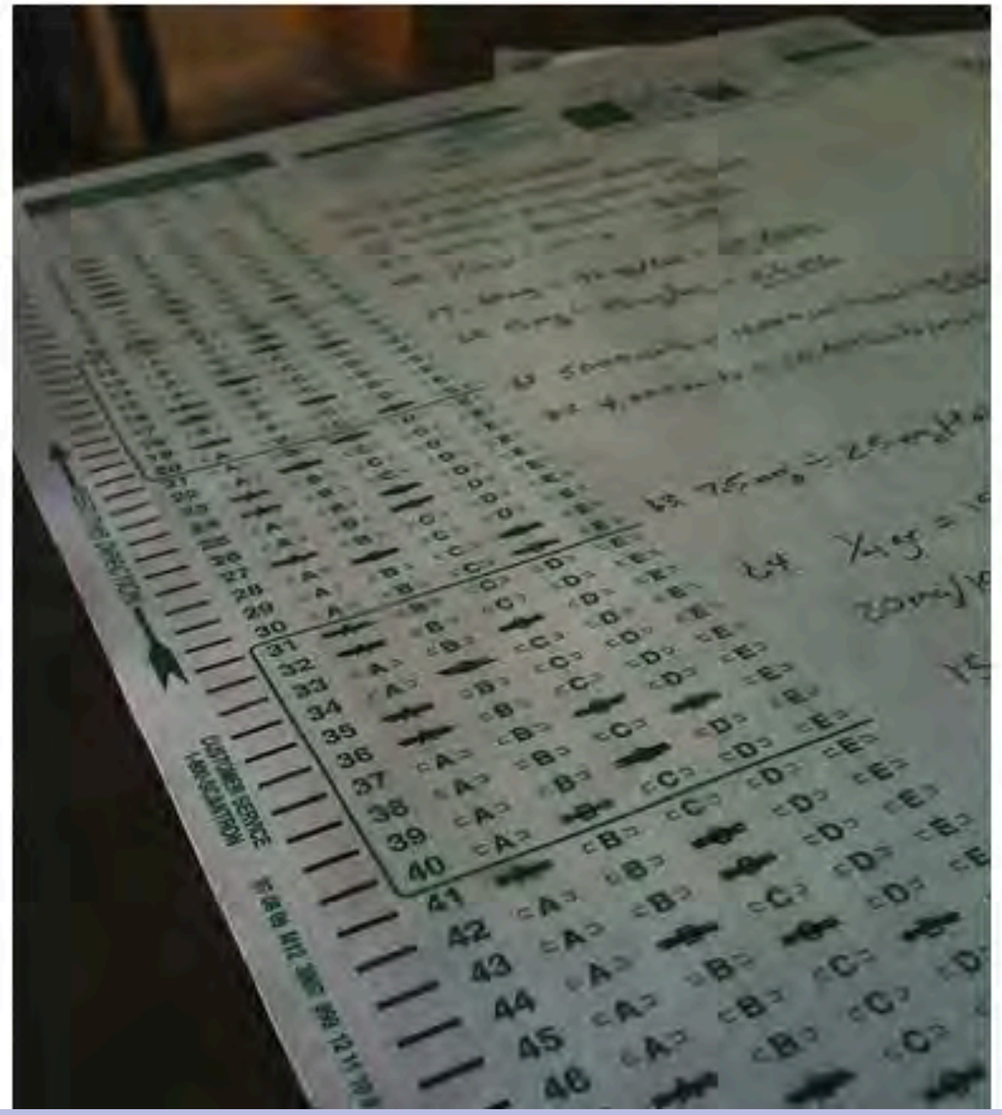
Grade inflation in higher education is a much-talked-about problem. Having been in academe for 13 years as an instructor and now as an administrator, I have heard nearly all my past and present colleagues, as well as many of the instructors who teach at my institution, complain about it. Most (dare I say all?) of those with whom I have had this conversation swear they don't give undeserved grades. Yet the phenomenon persists. Where is the disconnect? *Someone* is doing it.

That's a problem, both for students and for higher education in general. As Clifford Edwards, a professor of teacher education at Brigham Young University, points out, grade inflation "misleads students into believing they are better prepared for the world of work than they really are." In addition, it has been argued that by inflating grades, we are failing to teach students what it means to succeed, which erodes their self-esteem. And if A's are so easily obtainable, what does it say about the standards of the colleges dispensing them or the value of the degrees being conferred?

School Suspends Teacher for Giving Kids Bad Grades

Posted by **Jeanne Sager** on June 6, 2012 at 10:15 AM

Pop quiz time, parents. Did your kid actually earn the grade he got on his last test? Are you sure? Maybe this will help you decide: a **high school teacher** has been **suspended from his job** for actually **giving kids a 0** if they didn't turn in their homework or skipped a quiz.



Lynden Dorval is a physics teacher -- scratch that, *was* a physics teacher -- who has been labeled "unprofessional" and been kicked out of the classroom because he's been "negatively impacting student achievement." Huh. So, the way the school's administration looks at it, it's Dorval's fault that kids didn't turn in their homework or take their necessary quizzes. That makes ... absolutely no sense at all.

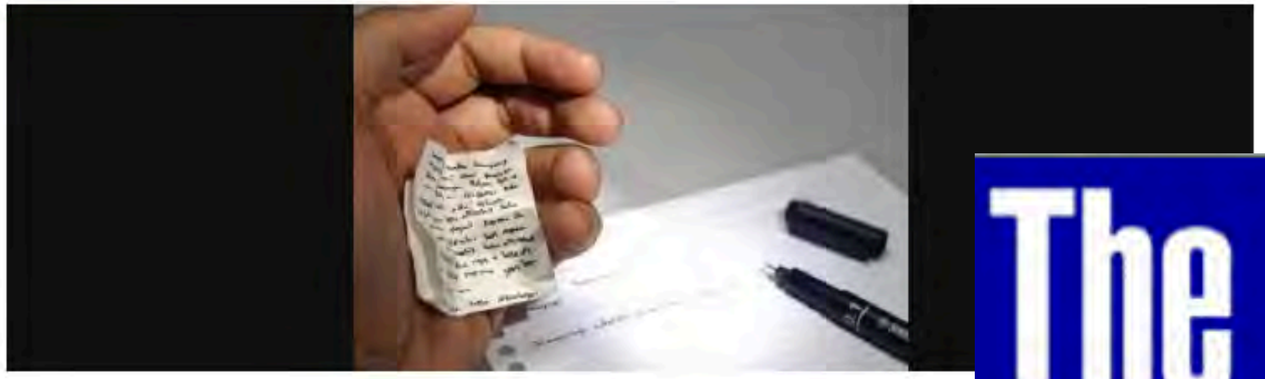
Is it any wonder kids are increasingly plagued with a bad case of me first and the gimme, gimmes? School administrators are quite literally telling kids they don't have to do any work.

Academic Cheating Fact Sheet

- Academic cheating is defined as representing someone else's work as your own. It can take many forms, including sharing another's work, purchasing a term paper or test questions in advance, paying another to do the work for you.
- Statistics show that cheating among high school students has risen dramatically during the past 50 years.
- Math and Science are the courses in which cheating most often occurs.
- Grades, rather than education, have become the major focus of many students.
- While about 20% of college students admitted to cheating in high school during the 1940's, today between 75 and 98 percent of college students surveyed each year report having cheated in high school.
- Cheating does not end at graduation. For example, resume fraud is a serious issue for employers concerned about the level of integrity of new employees.

Cheating: Shocking stats on academic cheating

CHEATING | DECEMBER 20, 2010 | BY: SUE SCHEFF |



The CPA Journal Online

A Publication of the New York State Society of CPAs

Academic Dishonesty: A Crisis on Campus

Forging Ethical Professionals Begins in the Classroom

By Jacqueline A. Burke, Ralph S. Polimeni, and Nathan S. Slavin

MAY 2007 - The recent corporate accounting scandals at Enron, WorldCom, Adelphia Communications, and Tyco International, as well as the largest American embezzlement of taxpayer funds of a school district, in Roslyn, N.Y., have compelled academics to review the ethical training of students. Many of the corporate executives involved in the fraudulent acts were trained in some of the most prestigious schools in the nation.

Guess What this Results in with Adults?

Proceedings of the National Academy of Sciences of the United States of America

Misconduct accounts for the majority of retracted scientific publications

Ferric C. Fang[a,b,1], R. Grant Steen[c,1], and Arturo Casadevall[d,1,2]

A detailed review of all 2,047 biomedical and life-science research articles indexed by PubMed as retracted on May 3, 2012 revealed that only 21.3% of retractions were attributable to error. In contrast, 67.4% of retractions were attributable to misconduct, including fraud or suspected fraud (43.4%), duplicate publication (14.2%), and plagiarism (9.8%). Incomplete, uninformative or misleading retraction announcements have led to a previous underestimation of the role of fraud in the ongoing retraction epidemic. The percentage of scientific articles retracted because of fraud has increased ~10-fold since 1975. Retractions exhibit distinctive temporal and geographic patterns that may reveal underlying causes.

Some Other Good Academic Reform Ideas.

Commentaries

The Twelve Reforms of Christmas

The Pope Center has its own wish list. Harken!

By Duke Cheston

December 23, 2012 Comments

It's been weeks since children developed their wish lists, and they are about to find out if Santa has brought what they asked for. We here at the Pope Center have put together our own wish list: twelve policies that we hope university officials and legislators (especially but not exclusively in North Carolina) will adopt to improve the quality, transparency, and affordability of higher education.

We will present the reform ideas in a three-part series, four at a time, throughout the week. Below are the first four. See if you agree with us!

1. Increase academic transparency.

Selecting classes is difficult for students. Some even sign up for more than they intend to take so that they can find out what the courses are like, and then drop one. This makes it hard for other students to get into those classes (a big problem when students are trying to graduate in four years). One reason for this behavior is that students must make decisions based on very short course descriptions from the university's course catalog, which give them only a vague idea of what they are getting themselves into.

We are being warned here about the consequences of our education policies

1 - We live in a society exquisitely dependent on science and technology — *in which hardly anyone knows anything about science and technology.*

2 - I am often amazed at how much more capability and enthusiasm for science there is among elementary school youngsters than among college students.

3 - We have arranged things so that almost no one understands science and technology. This is a prescription for disaster. We might get away with it for awhile, but **sooner or later this combustible mixture of ignorance and power is going to blow up in our faces.**

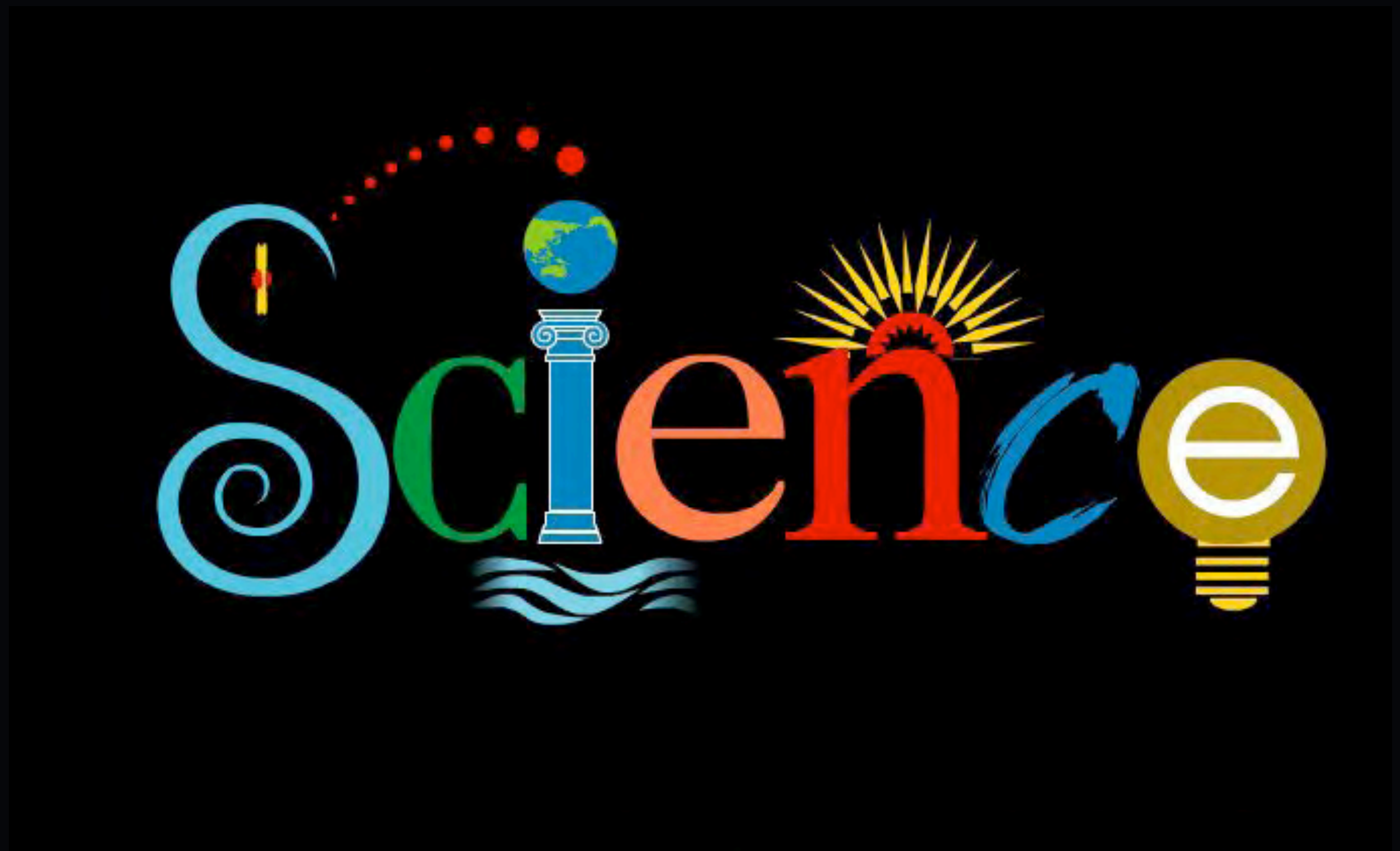
— *Dr. Carl Sagan*

Exposed to Facts, the Misinformed Believe Lies More Strongly

By: David Dayen Monday July 12, 2010 6:50 am

A truly disturbing study from researchers at my alma mater, the University of Michigan, reveals that political partisans reacted to facts that contradicted their worldview by clinging closer to their worldview.

Part 5:
Some NC Solutions



A Superior Summary of the Situation

"Since the waning years of the 20th century, politics has increasingly intruded on science. Scientific insights achieved through systematic, objective collection of data and empirical testing, have been subjected to political screening. Pioneering research findings that do not conform to political orthodoxy have too often been considered 'politically incorrect' and even attacked and censored.

"This trend has been particularly apparent in the fields of environmental science, where the stakes are very large. Respected scholars have been vilified when their research findings called into question the assumptions of 'conventional wisdom' and the agendas of powerful special interests.

...

A Superior Summary of the Situation (cont.)

"In the public arena, alarmist rhetoric over complicated issues has tended to drown out calm, rational discourse. Highly significant findings of great import have been ignored. Politicians and government regulators have made public policy decisions based upon false or fragmentary information.

"As a result, a host of unscientific, intrusive and counter-productive government policies have become commonplace, including takings of private property, bans of harmless substances, unwarranted liability court awards, byzantine bureaucratic controls, and regulatory measures that endanger economic growth, public health, and the environment."

– *The Independent Institute*

Public, leaders must fight misinformation about science

By Lewis Branscomb

6 p.m., July 11, 2012

We need many more politicians and opinion leaders from across the ideological and political spectrum to express their trust in, and reliance upon facts, no matter what divergent political viewpoints they may hold. We need them to reject and denounce scientific misinformation in favor of a baseline of scientific understanding about the critical issues we face that is informed by the best-available evidence.

We can overcome the scourge of politically motivated scientific misinformation but to do so, we must reawaken and mobilize not just our elected officials and industry leaders, but also the American public's great "Pragmatic Majority." Only with their vocal commitment can we return to our core American values of objectivity and reason upon which the effectiveness and credibility of our democracy depends.

The NC Legislature should:

1 - Carefully study **ScienceUnderAssault.Info**.

2 - Do what they can to see that the entire NC education system:
  a) aggressively teaches Critical Thinking, and
  b) prioritizes and promotes hard sciences.

3 - As a major step to defuse partisan politics (and get better results), see that all state technical policies are based on genuine science.

4 - Reach out to state-of-the-art companies that are developing science-based energy solutions, to locate in NC.

North Carolina can be a Leader in:

1) Eighteenth century ideas like horse transportation and wind energy (buggy whip manufacturing, blacksmith and windmill jobs)

OR

2) State-of-the-art, Scientifically Sound energy solutions (like Geothermal Energy, Small Modular Reactors, etc.)

A Sample Business that would be a Natural Fit for NC

PRODUCTS

Transatomic Power's WAMSR reactors turn high-level nuclear waste into electric power.

What makes WAMSR so innovative?

Power from nuclear waste. Transatomic Power's Waste-Annihilating Molten Salt Reactor -- WAMSR -- can convert the high-level nuclear waste produced by conventional nuclear reactors each year into $7.1 trillion of electricity. At full deployment, our reactors can use existing stockpiles of nuclear waste to satisfy the world's electricity needs through 2083.

Greatly reduced radioactivity. Conventional reactor waste is radioactive for hundreds of thousands of years. Our reactor reduces the majority of the waste's radioactive lifetime to hundreds of years, thereby decreasing the need for permanent repositories such as Yucca Mountain.

Inherently Safe. Unlike conventional reactors, which must rely on operator action, external electric power and active safety systems to prevent damage in accident scenarios, the physics of our design ensures our reactor is *always* passively safe.

Efficient modular design. Our compact 500 MWe molten salt reactor can be manufactured economically at a central location and transported by rail to the reactor site. Utilities can use the profits from the first reactor installed to fund construction of additional units.

THANK YOU

for Giving This Matter Some Critical Thought!