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CLIMATE PROGRESS

Archive for the 'Geoengineering' Category

On the eve of landmark climate manipulation conference, chief sponsor moves to quell criticism

Monday, March 22nd, 2010

Sometimes blog posts have immediate impacts. On Thursday, March 18, I wrote a piece on the Climate Response Fund that reflected concerns raised to me by many leading climate experts: "[Exclusive: Chief sponsor of landmark climate manipulation conference maintains close financial ties to controversial geo-engineering company.](#)"

CRF's Board responded with a [statement](#) on Friday, specifically addressing these concerns:

[\(more...\)](#)

Post by [Joe](#) in [Geoengineering](#) | [5 Responses](#)

Exclusive: Chief sponsor of landmark climate manipulation conference maintains close financial ties to controversial geo-engineering company

Thursday, March 18th, 2010

[*UPDATE: Sometimes blog posts have pretty immediate impacts -- see [here](#).*]

I am not comfortable with the the idea that a meeting set up to create guidelines governing geoengineering field tests might be used to help raise funds for geoengineering field tests, without the informed consent of meeting participants. I am also concerned with possible conflicts of interest related to the profit motive.

That's from an e-mail that climatologist and geo-engineering expert Ken Caldeira sent me this week.

I had heard last week that Caldeira was not going to the star-studded "Asilomar International Conference on Climate Intervention Technologies" — the "Woodstock" of geo-engineering. I asked him why. I reprint his full email below, along with concerns raised to me by geo-engineering expert David Keith.

Frankly, **I think all of the conference attendees (and they include some of the biggest names in climate, [full list here](#)) need to ask themselves whether they are helping to legitimize — and thereby ultimately helping to raise funds for — a nonprofit that will not unequivocally forswear funding geo-engineering experiments, a nonprofit that is closely tied to the financing efforts of a for-profit company that has already started pursuing dubious geo-engineering schemes.**

[\(more...\)](#)

Post by [Joe](#) in [Geoengineering](#) | [25 Responses](#)

Sole “Strategic Partner” of landmark geo-engineering conference is Australia’s “dirty coal” state of Victoria

Monday, March 15th, 2010

Climate Progress is beginning a multipart series on what has been called the “Woodstock” of geo-engineering. This historic but controversial event will take place March 22 – 26 in Asilomar, CA. Details can be found [here](#) on the website of the conference “developer,” Dr. Margaret Leinen of the Climate Response Fund.

I have been interviewing leading experts on geo-engineering about this conference, including journalist Jeff Goodell, author of the forthcoming book, *How to Cool the Planet*.

This conference proclaims its lofty goal “to develop norms and guidelines for controlled experimentation on climate engineering or intervention techniques.” That’s one reason why, as Goodell put it to me, it “needs to be purer than pure.” It appears to fail that test in a number of respects, as we will see.

[\(more...\)](#)



Post by [Joe](#) in [Geoengineering](#) | [22 Responses](#)

Owning the Weather

Saturday, December 12th, 2009



The following is a guest post by Hillary Berkowitz of 4th Row Films about “Owning the Weather,” which is being screened in Copenhagen, tomorrow, Sunday the 13th.

The desire to modify the weather has been around forever; but with the threat of catastrophic climate change, water wars, and intensifying hurricanes, a new breed of weather control has emerged.

[OWNING THE WEATHER](#) tells the story of weather modification in the United States, from Charles Hatfield's infamous rainmaking days to modern plans to engineer the climate.

[\(more...\)](#)

Post by [Guest](#) in [Geoengineering](#) | Comments closed

SuperFreakonomics coauthor Dubner ratchets up the rhetoric, claiming his critics have issued a 'fatwa'!

Wednesday, November 18th, 2009

The Superfreaks come up with their biggest aerosol smoke screen yet to obscure their book's countless mistakes, as Brad Johnson reports in this [Wonk Room repost](#). Note also how Dubner, in playing the victim card, trivializes the very serious issue of religious persecution.

In the latest of many fawning interviews promoting *SuperFreakonomics*, author Stephen J. Dubner claimed the critics of his "[global cooling](#)" chapter have issued a "fatwa for entertaining alternate theories." On Public Radio International's morning program, "The Takeaway," Dubner told hosts John Hockenberry and Celeste Headlee that he was right to call global warming a "religion." In fact, he considers the criticism the book has received from economists, climate scientists, and energy experts to be "[essentially a fatwa](#)":

In terms of the biggest result, I'd say is: We argued that the movement to stop global warming has the feel of a religion. I think if anything **we should strengthen that sentence, because what's been issued here is essentially a fatwa** for entertaining alternate theories.

Listen here:

[\(more...\)](#)

Post by [Brad Johnson](#) in [Geoengineering](#) | [11 Responses](#)

Superfreakonomics authors abandon climate science

Tuesday, November 17th, 2009

*The authors of SuperFreakonomics simultaneously insist they accept the science — "Like those who are criticizing us, we believe that rising global temperatures are a man-made phenomenon" — while at the same time labeling global warming a "religion" (see [here](#)). And we've seen one award-winning journalist explain "[Freakonomics Guys Flunk Science of Climate Change](#)." But now, as this stunning [Charlie Rose video](#) shows, we have the clearest demonstration that both Levitt and Dubner don't accept **and** don't understand the science. This is a [Wonk Room repost](#).*

Appearing on PBS's influential [Charlie Rose Show](#) last week, *SuperFreakonomics* authors Steven Levitt and Stephen Dubner expanded upon their [destructively uninformed portrayal of climate science](#), even throwing into question man's influence on global warming. When Rose asked him about the controversial "global cooling" chapter, Levitt fatuously claimed that "what we actually said is not even very controversial." Levitt said that *SuperFreakonomics* is "not denying that the Earth has gotten warmer." After Rose interjected, "And it's man created," Levitt said, "It's

harder to know whether it's man created”:

[\(more...\)](#)

Post by [Brad Johnson](#) in [Geoengineering](#) | [21 Responses](#)

Superfreakonomics coauthor replies to “scathing review” by Elizabeth Kolbert: “she somehow accomplished all this with a degree from Yale in ... literature.”

Saturday, November 14th, 2009

On Monday, *The New Yorker* published Elizabeth Kolbert's lengthy review of *SuperFreakonomics: Global Cooling, Patriotic Prostitutes, and Why Suicide Bombers Should Buy Life Insurance*. In her 2400-word review, titled “[Hosed: Is there a quick fix for the climate?](#)” she writes:

Given their emphasis on cold, hard numbers, it's noteworthy that **Levitt and Dubner ignore what are, by now, whole libraries' worth of data on global warming. Indeed, just about everything they have to say on the topic is, factually speaking, wrong. Among the many matters they misrepresent are: the significance of carbon emissions as a climate-forcing agent, the mechanics of climate modelling, the temperature record of the past decade, and the climate history of the past several hundred thousand years.** Raymond T. Pierrehumbert is a climatologist who, like Levitt, teaches at the University of Chicago. In a particularly scathing critique, he composed an open letter to Levitt, [which he posted on the blog RealClimate](#).

She then quoted from that open letter, which noted that their critique of solar cells was “complete and utter nonsense.”

On Friday, coauthor Stephen Dubner replied in a post titled, “[With Geoengineering Outlawed, Will Only Outlaws Have Geoengineering?](#)” Notwithstanding the title, the piece is clearly meant to be serious. Here is what they have to say about Kolbert's review:

[\(more...\)](#)

Post by [Joe](#) in [Geoengineering](#) | [31 Responses](#)

One error retracted, 99 to go. Superfreaknomics authors will, in future editions, correct their claim that Caldeira believes “carbon dioxide is not the right villain”

Thursday, November 5th, 2009

The outrage over — and debunkings of — the [error-riddled book Superfreakonomics](#) continue, even as coauthors Levitt and Dubner slowly concede their mistakes.

Perhaps the most scathing takedown to date comes from [Raymond T. Pierrehumbert](#), the Louis Block Professor in the Geophysical Sciences at the University of Chicago, on RealClimate, in an “[An open letter to Steve Levitt](#).” Pierrehumbert accuses his U of C colleague of “**academic malpractice** in your book.”

So far, Dubner has apologized to me for one false accusation in his Sunday, October 18 post attacking my accurate debunking of his book (see [here](#)). Now he has finally conceded [on his blog](#) that one of the many key errors I pointed

out in his book — that climatologist Ken Caldeira did not believe or ever say that “carbon dioxide is not the right villain in this fight” (see [here](#)). He still has not retracted the countless other mistakes I and others have pointed out. Indeed, Berkeley economist [Brad DeLong urged both authors to “abjectly apologize” for the whole chapter.](#)

And Dubner has not retracted the claim that is still being parroted by the deniers and delayers around the web that I did a “smear” on the book. **It is clear for all to see now that there never was a smear. Everything I wrote in my original debunking was accurate** – see [Error-riddled ‘Superfreakonomics’: New book pushes global cooling myths, sheer illogic, and patent nonsense — and the primary climatologist it relies on, Ken Caldeira, says “it is an inaccurate portrayal of me” and “misleading” in “many” places.](#)

[\(more...\)](#)

Post by [Joe](#) in [Geoengineering](#) | [21 Responses](#)

Rep. Jay Inslee slams SuperFreakonomics: “People are still trying to write books to deceive the American public” on climate science.

Friday, October 30th, 2009

This is a [repost](#) from Wonk Room.

Yesterday, Rep. Jay Inslee (D-WA) rebuked the authors of *SuperFreakonomics* for participating in a “continuing effort to deceive the American public” on the science of climate change. During an investigative hearing on [forged letters sent by the coal industry](#) to oppose climate action, Inslee condemned the industry’s effort to “hoodwink, defraud, and deceive the American public now to cover up the toxicity to the world environment” of global warming pollution. Inslee then turned to Steven Levitt and Stephen J. Dubner, criticizing them for “absolute deception” in their work on global warming:

The second thing I want to note is **this is not the only continuing effort to deceive the American public**. I want to note a book called *Freakonomics*, or *SuperFreakonomics*, that some authors wrote, that basically said or asserted we don’t have to control CO₂, we’ll just pump sulfur dioxide up into the atmosphere and that will solve the problem. They purported to quote a scientist named Ken Caldeira from Stanford who’s one of the predominant researchers in ocean acidification to suggest that Dr. Caldeira didn’t think we should control CO₂. **Which is an absolute deception**. Dr. Caldeira I’ve spoken to personally. He’s told me we have to solve ocean acidification. You can’t solve ocean acidification without controlling CO₂ and yet **people are still trying to write books to deceive the American public**. And we ought to blow the whistle on them, we’re blowing the whistle on one today, we’ll continue to do it, because ultimately science is going to triumph in this discussion.

[\(more...\)](#)

Post by [Guest](#) in [Economics](#), [Geoengineering](#) | [26 Responses](#)

SuperFreaks claim book doesn’t have “a moral or policy perspective.” Yet they wrote, “Any religion, meanwhile, has its heretics, and global warming is no

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exception” and warming is “at the forefront of public policy.”

Tuesday, October 27th, 2009

Yesterday, SuperFreakonomics co-author Steven Levitt said his book’s erroneous statement on recent global temperature trends was just an attempt at “irony” (see [Caldeira — “To talk about global cooling at the end of the hottest decade the planet has experienced in many thousands of years is ridiculous.”](#) Levitt “said he does not believe there is a cooling trend”!!).

He and coauthor Stephen Dubner also continued their national ~~media~~ disinformation tour on public radio’s Diane Rehm Show. I couldn’t stomach listening to their efforts to either walk back or obfuscate key errors and misrepresentations in their book [error-riddled](#) book. Wonk Room’s Brad Johnson has a stronger digestive system than I do, so he listened to the show and I’ll [repost his response](#).

Levitt and Dubner dismissed the [widespread criticism](#) of their book by [Nobel Prize-winning economists](#) and climate scientists as the “work of an activist,” evidently referring to physicist and former Department of Energy official [Joseph Romm](#), a senior fellow at the Center for American Progress. Levitt and Dubner even tried to laugh off the on-air criticism of Dr. Peter Frumhoff, a global change ecologist who is the director of Science and Policy at the [Union of Concerned Scientists](#) and a lead author for the Intergovernmental Panel on Climate Change. The authors represent their book as merely a quizzical look at interesting issues, without “a [moral or policy perspective](#)“:

[\(more...\)](#)

Post by [Guest](#) in [Economics](#), [Geoengineering](#) | [20 Responses](#)

Caldeira tells Yale e360: “Thinking of geoengineering as a substitute for emissions reduction is analogous to saying, ‘Now that I’ve got the seatbelts on, I can just take my hands off the wheel and turn around and talk to people in the back seat.’ It’s crazy.... If I had to wager, I would wager that we would never deploy any geoengineering system.”

Monday, October 26th, 2009

[Yale Environment 360](#): [I want to start with this little dust-up over SuperFreakonomics. In the book, you are quoted as saying, when it comes to global warming, “Carbon dioxide is not the right villain.” Is that accurate?](#)

Ken Caldeira: That is not accurate. I don’t believe I said anything remotely like that because I believe that we should be outlawing the production of devices that emit carbon dioxide, and I don’t think we can solve this carbon climate problem unless we drastically reduce our carbon dioxide emissions very soon.

e360: They also write that you are convinced that human activity is responsible for “some” global warming. What does that mean?

Caldeira: I don’t think we can say with certainty whether we’re responsible for 90 percent of it or we might be responsible for 110 percent of it. But the vast majority of global warming, I believe, is due to human release of greenhouse gases to the atmosphere.

e360: Another thing that plays in to the same kind of sensibility is the idea [which the book quotes Caldeira

saying] that the “doubling of CO2 traps less than 2 percent of the outgoing radiation emitted by the Earth.” When that’s phrased like that, it makes it sound like it’s not really much of a problem.

Caldeira: You should think of the whole global warming problem as a 1 percent problem, at least for doubling of CO2. In absolute temperature Kelvin — scientists like to use the Kelvin scale — the current Earth temperature is around 288 degrees Kelvin, and a 3-degree warming on top of that is basically a one-percent additional warming. And so this whole issue of climate change, when viewed from an Earth-system perspective, is a story about 1 percents and 2 percents. Two percent might sound like a small number, but that’s the difference between a much hotter world, and the kind of world we’re accustomed to....

e360: Overall, do you feel like your work has been accurately and fairly represented in this book?

[\(more...\)](#)

Post by [Joe](#) in [Geoengineering](#) | [7 Responses](#)

Nathan Myhrvold jumps the shark — and jumps ship on Levitt and Dubner (on their blog!) asserting: “Geoengineering is proposed only as a last resort to try to reduce or cope with the even greater harms of global warming! ... The point of the chapter in *SuperFreakonomics* is that geoengineering might be good insurance in case we don’t get global warming under control.” Did he even read the book?

Tuesday, October 20th, 2009

Un-friggin-believable.

Nathan Myhrvold, who Levitt and Dubner call the “polymath’s polymath” — who is one of the primary “experts” the authors rely on to make the case for their central geoengineering-only approach to global warming — has just publicly repudiated that approach. Apparently he never read the chapter — or didn’t understand it if he did. And apparently in their rush to print this “rebuttal” to my debunkings, the Superfreaks didn’t bother to read it closely, since he just wrote this jaw-dropper [on their blog](#):

Geoengineering is proposed only as a last resort to try to reduce or cope with the even greater harms of global warming!

... The point of the chapter in *SuperFreakonomics* is that geoengineering might be good insurance in case we don’t get global warming under control.

You can’t make this stuff up.

As the Union of Concerned Scientists posted [here](#) about Myhrvold’s amazing ~~defense~~ repudiation of *Superfreakonomics*:

That is exactly the opposite of what the book argues and represents a complete repudiation of the chapter from one of the main sources on which Levitt and Dubner relied.

Or go to the [Bloomberg interview of Dubner and Caldeira that backs up my reporting on error-riddled Superfreakonomics](#) for an independent view of what the book is about — and what the authors think the book is about:

Caldeira, who is researching the idea [of aerosol geoengineering], argues that it can succeed only if we first reduce emissions. Otherwise, he says, geoengineering can't begin to cope with the collateral damage, such as acidic oceans killing off shellfish.

Levitt and Dubner ignore his view and champion his work as a permanent substitute for emissions cuts. When I told Dubner that Caldeira doesn't believe geoengineering can work without cutting emissions, he was baffled. "I don't understand how that could be," he said. In other words, the *Freakonomics* guys just flunked climate science.

Are you baffled also? The two leading experts (well, one expert and one [F.A.K.E.R.](#)) that Dubner and Leavitt relied on for their geoengineering-only solution don't believe in it! Well, Caldeira doesn't believe in it. As we'll see, it's impossible to figure out what Myhrvold believes.

Myhrvold is not a "polymath's polymath." He repudiates the Superfreaks, so he's a contrarian's contrarian.

Why exactly does Myhrvold think the Superfreaks were so desperate to push the (incorrect) statement about Caldeira that his "research tells him that carbon dioxide is not the right villain"? Since the Superfreaks made me take the PDF of the book down, go to the NPR interview of Levitt (transcript [here](#)):

[\(more...\)](#)

Post by [Joe](#) in [Geoengineering](#) | [35 Responses](#)

Bloomberg interview of Dubner and Caldeira backs up my reporting on error-riddled Superfreakonomics. Dubner is baffled that Caldeira 'doesn't believe geoengineering can work without cutting emissions.'

Tuesday, October 20th, 2009

Caldeira, like the vast majority of climate scientists, believes cutting carbon dioxide and other greenhouse-gas emissions is our only real chance to avoid runaway climate change.

"Carbon dioxide is the right villain," Caldeira wrote on his Web site in reply. He told [Joe Romm](#), the respected climate blogger who [broke the story](#), that he had objected to the "wrong villain" line but Dubner and Levitt didn't correct it; instead, they added the "incredibly foolish" quote, a half step in the right direction. Caldeira gave the same account to me.

Levitt and Dubner do say that the book "overstates" Caldeira's position. That's a weasel word: The book claims the opposite of what Caldeira believes. **Caldeira told me the book contains "many errors" in addition to the "major error" of misstating his scientific opinion on carbon dioxide's role....**

Caldeira, who is researching the idea [of aerosol geoengineering], argues that it can succeed only if we first reduce emissions. Otherwise, he says, geoengineering can't begin to cope with the collateral damage, such as acidic oceans killing off shellfish.

Levitt and Dubner ignore his view and champion his work as a permanent substitute for emissions cuts. When I told Dubner that Caldeira doesn't believe geoengineering can work without cutting emissions, he was baffled. "I don't understand how that could be," he said.

In other words, the *Freakonomics* guys just flunked climate science.

That’s award-winning journalist Eric Pooley in his terrific Bloomberg story today, “[Freakonomics Guys Flunk Science of Climate Change](#).” Pooley has been managing editor of *Fortune*, national editor of *Time*, *Time*’s chief political correspondent, and *Time*’s White House correspondent, where he won the Gerald Ford Prize for Excellence in Reporting. His story vindicates my original reporting in [Error-riddled ‘Superfreakonomics’: New book pushes global cooling myths, sheer illogic, and patent nonsense — and the primary climatologist it relies on, Ken Caldeira, says it is an inaccurate portrayal of me and misleading in many places](#).

For me, the “villain” quote was not actually the main issue. **The main issue for me was the misrepresentation of Caldeira’s core belief that you have to cut emissions dramatically for geoengineering to even have a chance of making any sense.**

That misrepresented view is the one that actually represents a real threat to humanity — should enough people come to believe it. That’s why I am still writing about this — that, and the fact that **the Superfreaks are going to be spreading their confused misrepresentations for weeks to come**. Their amazing [press schedule is here](#) — they’re getting a full hour on *20/20* on Friday, plus *Good Morning America* (twice!) and *The Daily Show*.

[\(more...\)](#)

Post by [Joe](#) in [Economics](#), [Geoengineering](#) | [38 Responses](#)

Error-riddled ‘Superfreakonomics’, Part 2: Who else have Nathan Myhrvold and the Groupthinkers at Intellectual Ventures duped and confused? Would you believe Bill Gates and Warren Buffett?

Wednesday, October 14th, 2009

UPDATE: For an even bigger shocker, read Myhrvold’s “rebuttal,” which actually endorses my main critique (!): [Nathan Myhrvold jumps the shark — and jumps ship on Levitt and Dubner \(on their blog!\) asserting: “Geoengineering is proposed only as a last resort to try to reduce or cope with the even greater harms of global warming! ... The point of the chapter in SuperFreakonomics is that geoengineering might be good insurance in case we don’t get global warming under control.” Did he even read the book?](#)

This post will shock you.

The sheer illogic and “patent nonsense” of the new book *Superfreakonomics* discussed in [Part 1](#) is just the tip of the iceberg. What’s most worrisome is 1) who exactly has been peddling much of the nonsense and illogic to the authors — [Nathan Myhrvold](#), the former CTO of Microsoft — and 2) who else may have been persuaded by his bullshit. The Myhrvold connection deserves special focus because it may help explain three puzzling things:

- Why does Bill Gates’ Foundation mostly ignore global warming? (see [here](#))
- Why is Warren Buffett so wrong — and outspoken — about cap and trade? (see [here](#))
- Why did Gates and Buffett visit the Athabasca tar sands — the biggest global warming crime ever — to satisfy “their own curiosity” but also “with investment in mind”? (see [here](#)).

According to the Superfreaks, **Gates and Buffett went to the visit the tar sands (and other energy producers) with Myhrvold**, giving him plenty of time to spread his misinformation to them. Moreover, the idea Myhrvold came away is simply stunning.

And yes, one always needs the caveat, “according to Levitt and Dubner,” because their reporting skills are so dreadful — they shoehorn everything they hear into whatever contrarian view they had decided to adopt. You shouldn’t take anything they say at face value. As we’ve seen, the primary climatologist the book relies on, Ken Caldeira, says “[it is an inaccurate portrayal of me](#)” and is “misleading” in “many” places. But I have reason to believe Myrhvold was given a draft to comment on — and if so, he was a willing participant in the defamation of his own reputation and that of his company “Intellectual Ventures.” Apparently, he really does push this piece of staggering illogic:

[\(more...\)](#)

Post by [Joe](#) in [Geoengineering](#) | [27 Responses](#)

Error-riddled ‘Superfreakonomics’: New book pushes global cooling myths, sheer illogic, and “patent nonsense” — and the primary climatologist it relies on, Ken Caldeira, says “it is an inaccurate portrayal of me” and “misleading” in “many” places.

Monday, October 12th, 2009

Any religion, meanwhile, has its heretics, and global warming is no exception.

That staggeringly anti-scientific statement (page 170) is just one of many, many pieces of outright nonsense from [SuperFreakonomics: Global Cooling, Patriotic Prostitutes, and Why Suicide Bombers Should Buy Life Insurance](#). In fact, human-caused global warming is well-established [science](#), far better established than any aspect of economics.

In other words: it’s illogical to believe in a carbon-induced warming apocalypse and believe that such an apocalypse can be averted simply by curtailing new carbon emissions.

Hard to believe such an illogical statement (page 203) comes from Levitt and Dubner, the same folks who wrote the runaway bestseller *Freakonomics: A Rogue Economist explores the Hidden Side of Everything*.

For the record, it’s perfectly logical to believe that — indeed, I daresay most of the world’s leading climate scientists believe that if you could curtail all new carbon emissions (including from deforestation) starting now (or even starting soon), you would indeed avoid apocaplyse. None, however, would use the loaded word “simply” I’m sure and most, like Hansen, would like to go from curtailing emissions to being carbon negative as soon as possible. The Superfreaks, however, are simultaneously skeptical of global warming science, critical of all mitigation measures, but certain that geo-engineering using sulfate aerosols is the answer.

“Rogue” is a good word for Levitt, but I think “contrarian” is more apt. Sadly, for Levitt’s readers and reputation, he decided to adopt the contrarian view of global warming, which takes him far outside of his expertise. As is common among smart people who know virtually nothing about climate science or solutions and get it so very wrong, he relies on other smart contrarians who know virtually nothing about climate science or solutions. In particular, he leans heavily on [Nathan Myrhvold](#), the former CTO of Microsoft, who has a reputation for brilliance, which he and the Superfreaks utterly shred in this book:

“A lot of the things that people say would be good things probably aren’t,” Myrhvold says. As an example he points to solar power. “The problem with solar cells is that they’re black, because they are designed to absorb light from the sun. But only about 12% gets turned into

electricity, and the rest is reradiated as heat — which contributed to global warming.”

Impressive — three and a half major howlers in one tiny paragraph (p 187). California Energy Commissioner Art Rosenfeld called this “patent nonsense,” when I read it to him. And Myhrvold is the guy, according to the Superfreaks, of which Bill Gates once said, “I don’t know anyone I would say is smarter than Nathan.” This should be the definitive proof that smarts in one area do not necessarily translate at all



In olden days, we called such folks Artistes of Bullshit, but now I’m gonna call them F.A.K.E.R.s — Famous “Authorities” whose Knowledge (of climate) is Extremely Rudimentary [Error-riddled? I’m still working on this acronym].

The most famous FAKER was Michael Crichton. I thought Freeman Dyson was the leading FAKER today, but Myhrvold makes Dyson sound like James Hansen. I will devote an entire blog post to the BS peddled here by Myhrvold (who now runs Intellectual Ventures) because I’m sure he’s got the ear of a lot of well-meaning, influential, but easily duped, people like Levitt and Dubner — see [Error-riddled ‘Superfreakonomics’, Part 2: Who else have Nathan Myhrvold and the Groupthinkers at Intellectual Ventures duped and confused? Would you believe Bill Gates and Warren Buffett?](#)

Here are the howlers in that paragraph for the record:

[\(more...\)](#)

Post by [Joe](#) in [Economics](#), [Geoengineering](#), [Science](#) | [101 Responses](#)

Nature: Ocean fertilization for geoengineering “should be abandoned”

Sunday, October 4th, 2009

In the face of seemingly accelerating climate change, some have proposed tackling the problem with geoengineering: intentionally altering the planet’s physical or biological systems to counteract global warming. One such strategy — fertilizing the oceans with iron to stimulate phytoplankton blooms, absorb carbon dioxide from the atmosphere and export carbon to the deep sea — **should be abandoned**.

So begins a recent *Nature* opinion piece, “[Ocean fertilization: Time to move on](#)” (subs. req’d, excerpted below) by four researchers and oceanographers.

The more you know about geo-engineering, the less sense it makes (see [Science: ‘Optimism about a geoengineered ‘easy way out’ should be tempered by examination of currently observed climate changes’](#)). The most “plausible” approach, massive aerosol injection, has potentially catastrophic impacts of its own and can’t possibly substitute for the most aggressive mitigation — see [Caldeira calls the vision of Lomborg’s Climate Consensus “a dystopic world out of a science fiction story.”](#) And for the deniers, geo-engineering is mostly just a ploy — see [British coal industry flack pushes geo-engineering “ploy” to give politicians “viable reason to do nothing” about global warming.](#)



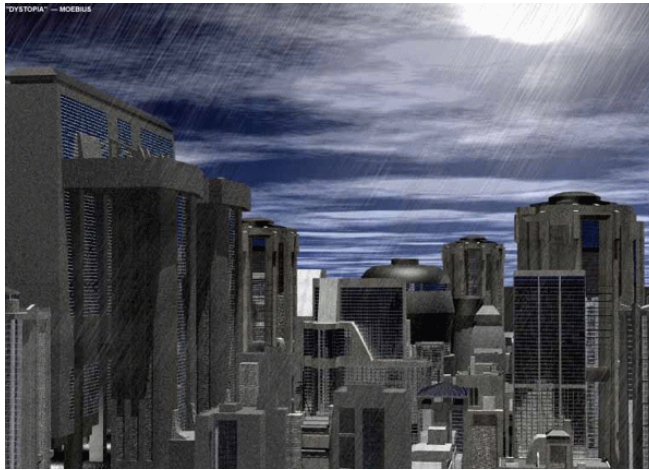
Geo-engineering is a “smoke and mirrors solution,” though most people understand that the “mirrors” strategy is prohibitively expensive and impractical. One of the few remaining non-aerosol strategies still taken seriously by some is ocean fertilization. This *Nature* piece explains why it should be abandoned:

[\(more...\)](#)

Post by [Joe](#) in [Geoengineering](#) | [18 Responses](#)

Exclusive: Caldeira calls the vision of Lomborg's Climate Consensus “a dystopic world out of a science fiction story”

Saturday, September 5th, 2009



If you don't do aggressive greenhouse mitigation starting now, you pretty much take geo-engineering off the table as a very limited (but still dubious) add-on strategy.

The only upside I can see to all of the media coverage Bjorn Lomborg is getting for his do-nothing climate “consensus” is this [one sentence](#) by *NYT* reporter John Broder:

[\(more...\)](#)

Post by [Joe](#) in [Geoengineering](#) | [41 Responses](#)

Science on the Risks of Climate Engineering: “Optimism about a geoengineered ‘easy way out’ should be tempered by examination of currently observed climate changes”

Saturday, August 29th, 2009

As the risks of climate change and the difficulty of effectively reducing greenhouse gas emissions become increasingly obvious, potential geoengineering solutions are widely discussed. For example, in a recent report, Blackstock *et al.* explore the feasibility, potential impact, and dangers of shortwave climate engineering, which aims to reduce the incoming solar radiation and thereby reduce climate warming. Proposed geoengineering solutions tend to be controversial among climate scientists and attract considerable media attention. However, **by focusing on limiting warming, the debate creates a false sense of certainty and downplays the impacts of geoengineering solutions.**

So begins, “[Risks of Climate Engineering](#)” (subs. req'd), an important piece in *Science* this



month by Gabriele Hegerl and Susan Solomon. [Hegerl](#) was a coordinating lead author for the Fourth Assessment Report. [Solomon](#) is an atmospheric chemist working for NOAA and “one of the first to propose CFCs as the cause of the Antarctic ozone hole.”

Solomon was lead author of the even more important February *PNAS* paper, “[Irreversible climate change due to carbon dioxide emissions](#),” which, as I noted at the time, gives the lie to the notion that it is a moral choice not to do everything humanly possible to prevent this tragedy, a lie to the notion that we can “adapt” to climate change, unless by “adapt” you mean “force the next 50 generations to endure endless misery because we were too damn greedy to give up 0.1% of our GDP each year” (see [NOAA stunner: Climate change “largely irreversible for 1000 years,” with permanent Dust Bowls in Southwest and around the globe](#)). No surprise, then, that she co-authored a paper skeptical of geoengineering.

I remain dubious of geo-engineering (see [Geo-engineering remains a bad idea](#)” and “[Geo-Engineering is NOT the Answer](#)“ and [British coal industry flack pushes geo-engineering “ploy” to give politicians “viable reason to do nothing” about global warming](#), which includes an excellent analysis by [Prof. Alan Robock](#)). Science advisor John Holdren [told me in April](#) that he stands by his critique:

“The ‘geo-engineering’ approaches considered so far appear to be afflicted with some combination of high costs, low leverage, and a high likelihood of serious side effects.”

The new analysis by Hegerl and Solomon is sufficiently significant — *Science* itself featured it early in *Science Express* — that I’ll excerpt it below:

[\(more...\)](#)

Post by [Joe](#) in [Geoengineering](#) | [44 Responses](#)

Energy and Global Warming News for July 21st: American Meteorological Society endorses geoengineering research

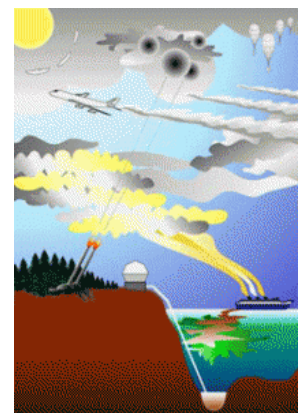
Tuesday, July 21st, 2009

Geo-engineering remains at best a secondary climate strategy if you first do really aggressive CO2 reductions and keep concentrations below 450 ppm. For now, as Obama’s science advisor put it [and reiterated to me this year], “[The ‘geo-engineering’ approaches considered so far appear to be afflicted with some combination of high costs, low leverage, and a high likelihood of serious side effects.](#)” At worst, geo-engineering is an utterly false hope that will undercut efforts to achieve the kind of emissions reductions needed for it to have any value. That, of course, is why conservatives love it (see [here](#)). Still, there is no reason not to do some research, as long as one is realistic...

[Climate engineering research may get green light](#)

Hacking the planet to rein in humanity’s effect on the climate has been given a scientific stamp of approval.

The umbrella body for meteorological scientists in the US is about to endorse research into [geoengineering](#) as part of a three-pronged approach to coping with climate change, alongside national policies to reduce emissions.



New Scientist has seen the final draft of the [American Meteorological Society](#)'s carefully worded position paper on geoengineering. The AMS is the first major scientific body to officially endorse research into geoengineering.

The document states that “deliberately manipulating physical, chemical, or biological aspects of the Earth system” should be explored alongside the more conventional approaches to climate change. Conventional approaches means reducing emissions – “mitigation” in policy-speak – and adjusting to the unavoidable effect of climate change – known as “adaptation”....

Opponents of geoengineering may be reassured to find that the statement calls for studies into the social, ethical and legal implications of geoengineering solutions, and for methods to be developed in a transparent fashion.

[Riding a Wave of Culture Change, DOD Strives to Trim Energy Demand](#)

[\(more...\)](#)

Post by [Austin](#) in [Geoengineering](#) | [20 Responses](#)

Geoengineering and the New Climate Denialism

Wednesday, April 29th, 2009

*Geo-engineering remains **at best** a secondary climate strategy if you first do really aggressive CO2 reductions and keep concentrations below 450 ppm. For now, as Obama's science advisor put it, "[The 'geo-engineering' approaches considered so far appear to be afflicted with some combination of high costs, low leverage, and a high likelihood of serious side effects.](#)"*

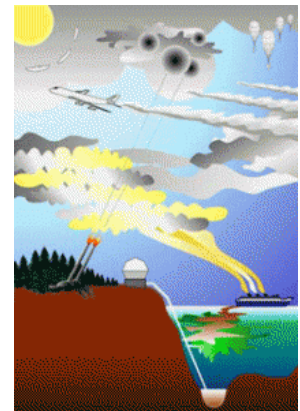
***At worst**, geo-engineering is an utterly false hope that will undercut efforts to achieve the kind of emissions reductions needed for it to have any value. That, of course, is why conservatives love it, which is the subject of the guest post today by Alex Steffen, Executive Editor, [Worldchanging.com](#) (first posted it [here](#)).*

Here is Steffen's article. He notes, "This is a draft essay, and obviously still rough in patches. I'd appreciate feedback!"

The *Idea* of Geoengineering is Being Used Dishonestly

[\(more...\)](#)

Post by [Joe](#) in [Geoengineering](#) | [16 Responses](#)



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