

## Re: Little green idiots cause global warming

**Source:** <http://sci.tech-archive.net/Archive/sci.chem/2004-12/1088.html>

---

**From:** charliw2 (*charliw\_at\_ev1.net*)

**Date:** 12/19/04

Date: Sat, 18 Dec 2004 18:38:34 -0600

"R Philip Dowds" <rpdowds@earthlink.net> wrote in message news:0Z2xd.3677\$yK.2237@newsread3.news.atl.earthlink.net...  
> *This is getting very long, so I will truncate. Those having difficulty following the argument may have to go backwards in the thread.*  
>  
> *charliw2 wrote:*  
> > *"R Philip Dowds" <rpdowds@earthlink.net> wrote in message*  
>  
> ...  
>  
>  
>>>  
>>>*A great deal of human affairs does not allow for this kind of repetitive testing under controlled conditions. For instance, in the early 50's, the CIA organized a coup which overthrew the democratically elected Mohamed Mossadeg of Iraq. Most historians are now convinced that this was seminal event in turning the Middle East against America, but ... some historians still adhere to the thinking of the fifties, which is that the Russians were about to make inroads in Iraq, and we had to act in order to prevent a communist take-over.*  
>>  
>>  
>>  
>> *This was an exercise in the realm of politics, not science. The analogy is*  
>> *flawed.*  
>  
> *But, even Mr Crichton is debating the proper nexus between public policy and science. The two worlds do intersect, and usually with some justification. I made the point about Iran to show how we choose to act even absent solid scientific proof; the analogy to global warming policy, where the evidence is at least semi-solid, maybe better, should be obvious.*  
>  
> ...

Don't justify stupidity with more stupidity. Bush Jr. wanted to invade Iraq

in a very bad way. The UN weapons' inspectors were conducting surprise inspections, but they weren't finding anything substantial. The administration then went about manufacturing its own data, or believing what it wanted to believe in order to justify its actions. The ends just do *\*not\** justify the means, and such actions as the Iraq invasion should not be used as a good example of a mix of science and politics.

>  
>> *It means that claiming a scientific argument for something that cannot be experimentally tested, for whatever reason, is normally a bad thing to do.*  
>> *Such arguments tend to fall into the category of opinion and speculation.*  
>> *Without the reproducible experimentation, you can never tell where a hypothesis is succeeding and failing.*  
>  
> *And so OK: Creationists argue that evolution is "just a theory" because we cannot replicate and experiment with the evolutionary process. Would you therefore agree with them that creationism and evolution should be given equal weight in a high school curriculum?*

I can't answer yet, but I will be able to answer in 1–2 years. In August of 2005, I plan to teach high school science and math. When I am a government employee, I will be subject to certain constraints, just as every employee is. At that point, I will have to live within those constraints.

>  
> ...  
>  
>>> *OK, another zinger is embedded here: "Certainty". For relatively simple matters involving short time spans and few variables, scientific certainty is indeed possible. We all have a pretty clear picture of what happens when we mix oil and water, and can expect the same result each time.*  
>>  
>>  
>> *That's correct – you can repeat the experiment. Another comment – most real world problems have more than three independent variables involved, and often many more. Most humans start getting confused when they have to deal with two or more independent variables at the same time. For something as complicated as global climate models, which have hundreds, thousands, or millions of independent variables, there is no doubt that such complexity is beyond full human comprehension.*  
>  
> *Don't be so sure. Particle physics -- the mathematical models and evidentiary data (which is increasingly probabilistic, not*

- > *deterministic*) -- is largely not understood (except in anecdotal terms)
- > by any other than the most exquisitely trained experts. Are you quite
- > sure that people assembling and operating climate models do not really
- > understand what they're doing, merely because you don't understand it?

That's not what I said. I have worked on a mathematical model of a process, which contained approximately 15,000 equations (VERY small when compared to global climate models) and had 20 degrees of freedom. For that model, I clearly understood all of the equations making up the model, but I often didn't understand the output coming from that model. The interpretation of big model output is a tricky business, even when you are an expert.

Translation – 100% understanding of how to build a mathematical model does not guarantee success in interpreting the model's output. I think that this is an implicit assumption that is not justified.

- >
- > ...
- >
- >> *Mathematical modeling should \*always\* be verified by real world data. I*
- >> *will not get too detailed here, but suffice it to say that there are*
- very*
- >> *many ways to get mathematical modeling wrong. Just because a set of*
- >> *equations exists in a computer, and the computer is capable of*
- converging*
- >> *those equations, does \*not\* necessarily mean that the resulting answer*
- is*
- >> *correct. In fact, for the highly multi-variable problems, the resulting*
- >> *answer is a very large printout which contains a lot of small changes in*
- >> *each of the variables. Human interpretation of such output is*
- >> *problematical, even when it can be proven that the output is correct.*
- >>
- >>
- >>> *Just look at*
- >>> *the entire progression of particle physics: Positrons, neutrinos, and*
- >>> *the Higgs boson all existed in theoretical mathematical models years*
- >>> *before -- sometimes decades before -- instrumentation was invented to*
- >>> *actually assemble data which served as "proof".*
- >>
- >>
- >> *Once again, the predictions were backed up with experimental results*
- that*
- >> *confirmed the predictions.*
- >
- > *I don't disagree, but somehow you slipped past my main point -- that*
- > *modeling theory is often out in front of substantiating data. This is*
- > *not a prima facie justification for jettisoning theory.*
- >

You may have also slipped past my main point. There is no justification for accepting global climate model output without looking for the kind of data

that either verifies or refutes the model output. Theories are a good thing. Data that either confirms or refutes the theories is even better.

> >  
> >  
> >> *What Mr Crichton is doing here is double-crossing himself. Having earlier ridiculed the tenacity of old theory in the face of better theory and evidence, now he says climate theory is too juvenile and unsubstantiated to warrant credulity -- which was a position he scorned in the context of plate tectonics.*  
> >>  
> >  
> >  
> > *Climate model output is not evidence. It is a prediction of what is expected to happen, based on all of the input data.*  
> > *Such a prediction should be verified with real world measurements.*  
>  
> *And indeed, I believe the process of substantiation via data accumulation and analysis is now under way.*  
>  
> ...  
>

And that's a good thing. I'm as curious as the next guy, and inquiring minds want to know! ;-)

> > *Consensus is not science. It is an appeal to authority, which is a well known logical fallacy.*  
>  
> *I don't disagree, but my point was that Mr Crichton labels people as arrogant because they insist on their views even when the majority is against them. He's working both sides of the fence at the same time.*  
>

This is the norm for human nature. Very few people are so objectively critical that they can put their own theories and hypotheses to the test.

> >  
> >  
> >> *Such a person is "arrogant". And this, from someone who just a few paragraphs back denied "consensus science". Was Einstein arrogant because he hung on to his models at a time when he was alone? (Many who tried to dispute his general and special theories of relativity concluded he was ...)*  
> >  
> >  
> > *Einstein based his theories on a very well known experiment by Michaelson and Morley, in which it was clearly demonstrated that the speed of light is constant in all reference frames. This simple demonstration led*

directly to

- > > *Einstein's work, and that work evolved into a host of implications for the*
- > > *then accepted Newtonian physics of the early 1900's. The point – Einstein*
- > > *didn't blindly try to overthrow the established physics of his day. He*
- > > *sought to provide an explanation for experimental evidence that clearly*
- > > *contradicted the status quo.*
- >
- > *Indeed, just as the theory of evolution evolved in part as a better*
- > *explanation of the fossil record, which was poorly accommodated by*
- > *creationism. The point remains is that much of Einstein's theoretical*
- > *explanations lacked solid evidentiary support until the invention and*
- > *mobilization of better instruments such as particle accelerators. I'll*
- > *stick to my guns: Inadequate evidentiary data is a reason for more and*
- > *better research, not a reason to toss out the theory.*
- >
- > ...
- >

Agreed.

- > >
- > > *Why do you insist on using political analogies to draw scientific*
- > > *conclusions? Science and politics don't mix.*
- >
- > *Would that they would. I repeat: Mr Crichton's central argument is*
- > *that we should not adopt public policy, or take public action, until we*
- > *have a high degree of certainty (95% confidence?) about something.*
- > *Well, I might be persuaded by this recommendation if I thought*
- > *government and the public would adhere to it consistently. My*
- > *counter–point remains: We should not hold action relative to climate*
- > *change to a higher standard than we used for the invasion of Iraq, or*
- > *the cutting of taxes, or the missile defense shield, or ... Well, you*
- > *get the picture.*
- >
- > ...
- >

That depends on whether you see the climate change debate as chiefly scientific or chiefly political. I prefer to get the science correct, then decide on what to do about it. Given this opinion, asking for a 95% confidence before acting is just following standard scientific operating procedure.

Other comments:

- \* the invasion of Iraq was purely political and based on falsified information
- \* the cutting of taxes was purely political
- \* the missile defense shield is political, based on the care and feeding of the military/industrial complex, and HUGELY flawed from a scientific

standpoint. How can you detect or shoot down a nuke that enters the U.S. in a big shipping crate via ship? Keep in mind – "close enough" only counts in horse shoes, hand grenades, and nuclear bombs. For something the size of an H-bomb, close enough is 5–10 miles away. Any big port is within 5–10 miles of a big city. I'm sure you get the point.

> >> (2) *Many scientists and a lot of data indicate that this*  
> >>*re-concentration of carbon dioxide is pushing up the average temperature*  
> >>*of the earth. Furthermore, the \*rate of change\* of this average*  
> >>*temperature may be greater than at any point in planet history.*  
>>  
>>  
>> *Speculation. Besides, humans should be worried about what has occurred*  
*in*  
>> *the last 1–2 million years rather than the whole history of the planet.*  
>  
> *Not speculation; credible theory bolstered by some evidence, just like*  
> *evolution.*

Bolstered by "some" evidence. At this point, the evidence is sparse, and usually within the range of normal variability.

> *Say more about the special significance of the last 2*  
> *million years, please.*  
>  
> ...  
>

I thought you would "bite" on that comment.

When the earth first formed, it was a big ball of magma, so temperatures were HIGH, and no life existed. At other times in the earth's history, the atmosphere was very different than it is today. There are no records (proxy or otherwise) which cover all of earth's history, so claims that the rate of change in temperature is unprecedented cannot be verified at the 95% confidence limit. Even if such claims could be verified, they cannot be relevant to human existence, which is almost inconsequential when compared to "the whole history of the planet". Your internalization of the "rate of change" statement implies that you are easily swayed by the tactic of the big lie. If the statement is bold enough, and repeated often enough, many people will believe it.

The big question that I have: How can you verify such a statement?

>>  
>> *Another generation or two is not very far into the future. It shouldn't*  
>> *take very long to verify the theories of such alarmists, should it?*  
>  
> *Sadly, no. Part of the dilemma is that by the time the alarmists are*  
> *shown to be at least partly correct, we may have passed the point of no*  
> *return. We may not be able to repair the planetary system, once*

sci.chem: Re: Little green idiots cause global warming

- > *damaged. (After 50 years of Big Macs, it takes a lot more than a week*
- > *of salads to repair your body -- if repair is possible at all.)*
- >
- > ...
- >

I'm willing to take the risk to verify the predictions.

Put another way: haven't you been subject to high pressure sales tactics when buying an automobile? "The deal is only good today!". "This is a once in a lifetime deal!". Etc., etc.

Recognize a slightly different flavor of high pressure sales tactic for what it's worth.

And, by the way, there is no "point of no return". If there was, it is very likely that in the long history of this planet, such a point would have been reached by now, and earth would have turned into another venus. The fact that such a thing hasn't happened strongly implies that there are strong negative feedbacks that act to keep earth's climate relatively stable over geologic time frames.

- > > *You may have misinterpreted his point. He is saying that even climate*
- > > *scientists, funded by government money, can have a conflict of interest*
- such
- > > *that they tend to report developments in ways that will guarantee future*
- > > *funding. If such scientists say that there is no problem, you can be*
- sure
- > > *that the government will cut funding.*
- > >
- > > *His proposal to "spread out" the process tends to ensure that such a*
- real or
- > > *perceived conflict of interest has a minimal impact on the science.*
- >
- > *Again, no disagreement. It's just that he did not come up with an*
- > *indictment uniquely devastating for climatology, as opposed to metallurgy.*
- >
- > ...
- >
- > > *So, you recognize that the global warming debate is as much political as*
- it
- > > *is scientific?*
- >
- > *Of course it is. Everything from tax policy to education policy to*
- > *foreign policy to environmental policy is a mix of science and politics.*
- > *A mix of information, plus interpretation of that information*
- > *according to values and personal perspective (or prejudice). And so?*
- > *You have an alternative?*

The more relevant question: why are you so willing to "water down" science with politics?

Re: Little green idiots cause global warming

sci.chem: Re: Little green idiots cause global warming

- >
- > *RPD / Cambridge*
- > *Facts can be your friends if you treat them right.*
- >