

## The Elephant In The Room

*I have no interest in faulting the good efforts of many conscientious climate scientists! It is my belief is that a lot of superior scientific work has been conducted in the climate area.*

My opinion, though (as a physicist), is that **much more needs to be done** – especially before we extract from what we know so far to make **public policies that will cost us 50± Trillion dollars, plus have numerous other profound influences on our lives.**

*Is there any other field of science where the public consequences are so huge? Not to my knowledge.*

Considering that fact, the standards of climate science should be commensurately EXCEPTIONALLY high. **To be blunt: at this point they simply are not.**

As a scientist and longtime concerned environmental advocate, my writings are typically aimed at trying to give citizens a better understanding of complex scientific matters. I often use analogies, as good stories are able to convey messages that otherwise would be extremely difficult to communicate.

Please consider the following analogy about how I see the current situation with Anthropogenic Global Warming (AGW).

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Let's say that we live in a society of blind people. (*Considering how little we know about most things, this isn't far from reality.*)

One day we get a report that our community is threatened by an enormous, fast approaching – but unfamiliar beast.

Since we are all blind, no one knows what to make of this account about the strange creature. Three scientists are sent to figure out what this thing is, so we can then decide what to do about it.

[To give you more insight about this story, here's a hint: this animal is an elephant.]

One scientist comes back and gives us a comprehensive scientific chemical analysis about the elephant's toenail.

A second produces a scientific analysis of the elephant's ear.

A third provides us a scientific analysis concerning the elephant's tusk.

They then get together to compare notes. Their consensus is that we have a **prehistoric amphibious carnivore**. Based on this conclusion they decide that the beast could be extremely dangerous to our community of blind people. Their recommendation is to kill it, any way possible, and as soon as possible.

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So, is this “consensus” conclusion of scientists, **science-based**? *I think not!*

If not, does that mean that the three scientists did a poor job in their individual analyses? *From the information given, we don't know, but not necessarily.*

### **Then what was the problem?**

Assuming that their individual evaluations were accurate (a big assumption), here are at least two concerns:

- 1 - Three scientists were not sufficient to accurately assess what they were examining.** Several other key parts of the elephant (by accident or design) were not adequately evaluated — *so that missing information could not get properly factored into the scientists' consensus conclusion.*
- 2 - The composite conclusion** (that this was a prehistoric amphibious carnivore) was NOT subjected to the Scientific Method. The fact that the individual elements (toe, ear, tusk) were presumably based on good science, *is not sufficient to prove that the composite conclusion is equally accurate!*

In this case, **if** the hypothesis (that this was a prehistoric amphibious carnivore) WAS properly subjected to the Scientific Method, it would have been shown to be false (e.g. as elephants are not carnivores).

Following that revelation, the scientist would have deduced that **more information** was needed to get an accurate picture of what they were dealing with. Their likely decision would be to bring in more experts to do *additional* scientific evaluations of the animal (e.g. tail, mouth, genitals).

[Notes: *Would the original three scientists see the new scientists as a threat to their credibility or competence? NO! Would the original three scientists welcome the new scientists with open arms, and tell them everything they knew to get them off to a good start? YES! If any of the new scientists believed that the original “composite” hypothesis was incorrect, would they be labeled by the others as a “denier”? NO!*]

After the new scientific assessments were generated (again greeted with enthusiasm — not as an *undermining* to what the original three had done), **all** involved scientists would get together and come up with a consensus of a NEW composite. Additionally they would **reach out** to other scientists in their community to critique their work, to add further insights, etc.

If the hypothesis was the **same** as before (the one that had failed the Scientific Method test) then they would need to arrange for still more scientists to do additional analyses — and again proceed as above.

If the hypothesis was **different** from the original, then they would subject that new hypothesis to the Scientific Method, and see what happens (following the same procedure as above).

[Note that I tried to create a scenario where the analysis was objective, independent, transparent and based on **empirical** evidence. Everyone was on the same page: *let's get this accurately figured out*. No one had an agenda to prove that this animal was one thing or another. No one had their analysis clouded by some financial incentive. No one said to another scientist "go away, we don't want your input." No one said "the data I used and how I massaged it is proprietary." Computer programs were not substituted for real-world analyses. Etc. Etc.]

If additional scientists still did not come up with a hypothesis that was provable, then the assessments of the individual parts should be re-examined. Maybe an honest mistake was made? Maybe some assumptions were wrong?

Ultimately, a hypothesis will be proven to be correct by the Scientific Method – *not by a vote or consensus of the scientists!*

At THAT point (and not before), policy makers would be advised as to what the scientists felt were the options, and the consequences of each.

**In my view, very little of this is happening with AGW, and particularly with the IPCC's handling of this matter.**

The politics have gotten involved WAY too early; there is not a genuine scientific openness here; there often is not true objectivity as financial motivations have muddied the results; there often is not transparency; computer models (that often have undisclosed assumptions) have had an excessive influence here; etc.

The result of all of this is that (at our extreme peril) we have strayed from what real science is all about.

The solution is to get the political and financial biases out!

Make the WHOLE analysis **open, comprehensive, objective, independent, transparent** and based on **empirical** data.

*Then subject the composite hypothesis to the Scientific Method.*

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2/8/19