

Chapter B.1 Why do scientists fail so badly at Rational, Logical, and Scientific Thinking

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A. The impossible conclusion: Scientists can't think!

- V. How do scientists really think and behave?
How to explain “non-rational” Scientists?

These are NOT the main reasons!! (I differ from skeptics)

Funding

Conspiracy theory -

Media

Environmentalists -

.....Contributors, yes. Main drivers, NO.

The REAL issues

MindCode: What you think you think may be irrelevant – you are pre-programmed at conception

Game/cheating theory - is what makes you, your organisation, society competitive and successful

Belief systems – blowing in the politically-correct winds

Honesty, competence, diligence – is good for society as a whole. It's counter-productive for you!

- V. How do scientists really think and behave?
Game/cheating theory

Evolution is a powerful programmer of complex systems that function in complex & highly non-stationary environments. It's a deeply rooted part of your behaviours and personality. Logic cannot function at this level of complexity and performance.

Game theory – how to survive/ succeed

Loyalty - Those who challenged the king's opinion tended to contribute less to the gene pool.

Teamwork – More important than whether we are right or wrong? More to the point – most effective to have a diversity of groups, only a few of which will succeed. Again, logic isn't really terribly useful here.

The Seven Horsemen – and the culling of society

- V. How do scientists really think and behave?
Believers and Scientists

Science fashions, become science cults, become science religions...

Typically, in scientific discussions for which scientists have a very strong opinion, to the point of castigating/persecuting others:

They are unaware of issues related to the key data, analysis underlying their beliefs

They lack an ability to rationally and critically assess whether data and analysis make sense or not (eg finding inherent inconsistencies, errors).

They walk away angrily because they KNOW what you are saying is stupid and wrong.

As with religious beliefs, logic is a losing approach to discussions with them:

The same people who inhabited the monasteries, now populate the government and academic corridors?

..... It sure looks so..

V. How do scientists really think and behave?

Blowin' in the politically correct winds...

The Media as a substitute for scientists' thinking?

Many top skeptics in the world started off as adamant pro-Kyotoists for years before "realizing the error of their ways", and actually looking closer at the data, the analysis and the papers.

But why did they EVER believe the Kyoto Premise?

Marshall MacLuhan: "... The medium is the message. ..."

More importantly:

"...the message (belief) has NO CONTENT!..."

We don't need scientists just to parrot the TV and blogs.

...Scientists as Intellectual robots...

V. How do scientists really think and behave?

Blowin' in the winds of

politically-correct science

Most scientists really don't know what they think, if they think at all

And if the politically correct winds change in speed and direction, they are immediately onto it

Not realizing that their thinking has flipped in radically different directions,

They believe they've always thought the new way, or that it was they who anticipated or invented it.

But they have no more basis for their new thinking than their old.

...Perhaps over time those who would dare challenge the king or the consensus disappear from the gene pool, throughout human history.

V. How do scientists really think and behave?

The Political/ Philosophical basis of

Scientists' thinking

Political allegiance basis to the thinking of most scientists – eg George Bush versus Clinton or

Europeans doing the same thing

If you say nice things with noble objectives,
we believe you.
If you speak of harsh realities and decisions,
we don't believe you.
If you speak of the end of the world,
then it must be true...

Conclusions (1)

1. The vast majority of scientists fail catastrophically at [rational, logical, scientific] thinking when tackling non-routine issues for their areas of expertise, and these “thinking failures” occur at the initial, simplest levels of concepts.
2. It is the rule, rather than the exception, that consensus science is hugely [dysfunctional AND dishonest AND delinquent], particularly when dealing with politically correct issues of great interest to the public.

Conclusions (2)

3. Much of the identification, correction, and leadership in correcting errors in consensus scientific thinking comes from non-scientists, who often easily beat scientists in their own area of expertise. (This should NOT be a surprise if you think about the history of science).
4. Government scientists contribute almost nothing conceptually to the great debates over junk consensus science, - but they do provide good data (and data is CRITICALLY important).

Conclusions (3)

5. The long-term success and “survival” of science is more dependant on non-scientists than on scientists, and is mostly threatened by the scientists themselves!
6. The “genesis” of science, only requires 1 to 10 people. Huge numbers of science may actually have a negative marginal impact, as the vast majority will be believers, suffocating the critical thinkers.
7. Consensus Science – is an oxymoron! Essentially all great ideas are from madmen. Much of science was developed by amateurs before the modern era.

B. The Nature of competitive systems

Competitive systems evolve beyond the cognitive capability of their most capable “agents” (individuals, organisations, political systems, human / machine hybrids etc).

C. The Failure of consensus science

The failures of the scientific consensus listed in the last section are catastrophic to the point where I propose that:

The REAL issue behind the Kyoto Premise has nothing to do with the climate at all. The real issue is how can one explain the genesis and propagation of "dysfunctional and/or dishonest and/or delinquent" (D-cubed) thinking by scientists, between scientists and within scientific institutions and communities, to the point where these "science cults" become the scientific consensus?

The intent is to merge the 3 components of D-cubed thinking together, and to avoid trying to interpret motivations, intentions and the state of individual's knowledge which would be the basis of distinguishing between them. We cannot read minds, and it is to all practical extents impossible to prove anything. Moreover, in the end analysis, for the purposes of those having to sift through sources of information and prioritize them based on the credibility of the authors, the 3 forms of D-cubed thinking are equivalent. It seems that we may have a tendency to over-emphasize dishonest or profit-driven motivations, when delinquency and dysfunctional thinking are far more likely with long-term professionals. However, presumably all three are present with major initiatives involved a huge number of people.

What I am NOT trying to say

- D-cubed thinking isn't necessarily permanent. In fact, the assumption here is that science still tends to triumph over time, in spite of the scientists. New instruments, experimental or research techniques, mathematical/ statistical tools, and modelling/ analysis will tend to shift thinking, as will pockets of scientists with better ideas. One could argue that some beliefs, as components of religions and cults of whatever type, are persistent, but those domains aren't the focus of this paper.
- It's not that the problem is specific to scientists at all - I believe that we are all susceptible to this effect. However, scientists (and engineers) do try to portray themselves as being well trained, of high intelligence, logical, and systematic. To some extent that is what the public expects and believes, although that reputation may be declining over time as the public learns about a succession of failures and flip-flops by high-priority and high-profile scientific themes.
- D-cubed thinking will be a BENEFIT in many cases - logic is far from being our only mental tool.

Perhaps I am wrong, but if so it will have not been because consensus scientific thinking in this area has provided clear, coherent and convincing arguments to the contrary.

Having scientists change over to the "true" solution (whatever that may be, if we are ever able to know what it is) doesn't "solve" the problem of D-cubed thinking at all. It may be winning a battle, without having any influence on the greater war. Scientists may tend to "blow with the wind" of the prevailing, politically correct scientific, environmental or other fashion trend, shifting their positions and beliefs, perhaps subconsciously or without realizing it, without having a solid personal foundation for the new beliefs

As a general caveat when making critiques such as I am proposing, in judging the quality of the thinking behind concepts, it is important to do so in the context of the information and state of knowledge extant at the time that the concepts are put forward (Bjorn Lomborg provides one of the best examples of an attempt to do this).

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