

Written Evidence Submitted by Brian Catt (RRE0085)

I could have written a technical piece, with lots of references. But I had little time, and others more eminent will have covered the academic details. Instead I will attempt to qualitatively describe the issues that have led to the increasing corruption of academic science, as distinct from the arts. I am a Chartered physicist and electrical engineer, who worked in research activities before entering technology business, where the technology has to work as claimed or you don't get paid. I returned to research and publishing in retirement, so am now informed by current experience and personal contact with leading figures in University research, as well as the industries and politics associated with the "science" that it claims to follow. Hence my view is broad and my formation covers all the areas I discuss. I question how "scientific" research really is, both at the heart of the problem being considered, and also across the broad range of University scientific research. All the qualitative statements here can be directly and simply supported with quantified evidence from multiple peer-reviewed papers, from literally thousands of authors.

Now, in more and more University "science", politics and money leads the science, which is abused to meet publication numbers, support political ends, and perhaps make money for insiders who support it, through the laws passed in its name, ideally both at once. This is not a new problem, although self-funding aristocratic scientists had the independence to challenge consensus and conformity. Not that it helped Lavoisier, so Phlogiston remained a consensus for another 100 years before the role of oxygen in combustion was re-discovered. But.....

“Men only care for science so far as they get a living by it and that they worship even error when it affords them a subsistence.”
Johann Wolfgang von Goethe. (1749-1832)

This is an old problem because people are human, not naturally scientific in their beliefs and motivations.

Scope of the Committees Investigation:

Your review is welcome and a good start at addressing a real, large and growing problem, indeed the intolerant enforced consensus culture also extends into the arts, where academics views are necessarily personal beliefs, unprovable by their nature, yet those holding alternative opinions to the prevalent belief system are attacked personally. <https://jpehs.co.uk/why-i-left-academia/>

Also, I suggest your agenda tends to address the wrong problem/effect as regards the serious negative impact of political decisions made on behalf of others, that are justified by manufactured "science". Because the approach of picking subjects/disciplines of interest misses the basics of the problem, which extends across all of academe to differing degrees.

What causes repetition and integrity problems are the people doing the science, not the science itself, and how they respect the established scientific process in what is perceived as "peer

reviewed science ". Wherever problems exist, it requires the deliberate or unknowing co-operation of academics, University management and publishing processes involved - in how the research is funded, and whether to test, or to try to prove, a theory - the method by which the theories are tested should only be by observation, and the way they are reviewed publication should check this.

While consensus and belief has necessarily applied in the arts, economics, social science, epidemiology, where no proof is possible, the consensual methods of these disciplines have crept into hard science, where they have no place, because test by observation is the only acceptable proof.

These disciplines are those such as physics, Chemistry, Engineering, etc. Formerly defined by the rigours of sceptical deterministic science.

Now the unprovable methods of consensual science, programmed into self-adjusting statistical models that newly created "experts" make up, but cannot prove, is now presented as proven science that it never can be, sometimes to justify political action it in fact does not. Wrong because the measured evidence disproves this "modelled science", or [because it is indefinite/vague in its basic theory/guess/belief, so can be neither proven nor disproven](#). These are the fundamental principals of scientific method.

I suggest the best way to understand the committee's problem is to follow these principals, and also to follow the money, egos and career goals of the worst offenders - the enabling University managements, Departmental heads and professional Journal reviewers. This grouping acts together to enforce the content and control of which science is published and which denied publication, the systematic problem this committee recognises.

They do it partly to support the change in University research, from quality to quantity, from focussed excellence by the best, solving serious questions of science to advance civilisation, to funding bloated departments full of "Professors" performing mundane "research" into unprovable "science". I suggest much of it delivers little actual value to the taxpayer paying for it.

Ultimately bad science is driven by bad research and bad researchers, with inappropriate motivations, under pressure to attract funding from the public and private sector, who may need a belief proven as "scientific" for their own ends, not to test its reality deterministically.

e.g. Government likes to pick winners, and deny problems, so regularly commission such "science" by "experts" to justify their choices. e.g. Poorly designed and considered COVID models, that wasted time and money. This is not "science". Models are statisticians guessing, knowing little, and proving less. Models are used to frighten people and justify the wrong action with "science" they aren't. More forgivable when people are dying now, in peace or wartime, so decisions are needed - choices between bad alternatives? But not when there is no observable problem to act upon. And, whatever the models suggest, the only scientific test is the observation of reality.

For other Universities to deny such "consensual science" is a bad idea, seen as un-collegiate and "unhelpful" in the new academic reality, and well controlled by government with the taxpayer's money tap.

Scientific journals enforce the consensus, by ensuring peer reviewers are "on message", in what is now well known as the "PALS review". As a result no balance is available, because sceptical

challenge to consensual science is denied publication, unless the author pays an open science journal to publish them, so is rarely allowed a platform, unless they place their presentation on You Tube, Vimeo, etc.,. It is also unlikely a University management would allow such sceptical science to be carried out by an employee in the first place.

If you have a balanced set of witnesses, who are not all part of the current consensual science establishment, you will hear how hard it is to publish science that challenges the assertions and predictions of consensual science with observations, as it should. In contrast, the consensus is supported by a stream of papers built upon the original unproven belief, and nodded through by Journals' peer reviewer gatekeepers.

We had a good example when the climategate fraud at the University of East Anglia was exposed. Even then the organised fraud was swept under the carpet by the enquiry, because government wanted to pass laws based on the manipulated "science" of those involved, the overt deceptions of climate science. This consensual science of unprovable assertion and attribution, that denies the observed record and written history, has just been re-invented, in denial of hundreds of published papers to the contrary, to support the assertions of IPCC AR6 models before COP 26.

In other fields it's called fraud. In government it's legalised as malfeasance, using [what Feynman described as "pseudo science"](#), that cannot be proven, or even directly contradicts established science. This bad science is a growing multi £Billion pa problem that is wasting huge amounts of public money by law, to no benefit as regards its claims, in multiple areas of law making.

e.g This was well described by Sir David MacKay FRS, former DECC Chief Scientist and Cambridge Physicist, as regards energy policy, which he only felt able to make public 10 days before he died. The Energy and Climate change act has, in science and engineering fact, a regressive effect on every measure of energy supply, compared to simply preferring a largely unsubsidised transition to nuclear power through clean gas, the objective engineering choice that best meets the claimed objectives of policy - fastest, cheapest, most sustainable, zero CO2. But that's only the engineering and scientific facts. Political choices were preferred, even deceitfully taught as facts they are not in schools, to ensure the fewest people understood reality, and those who did had no platform to communicate the truth, in public or University science. Academics have to retire before they can speak the truth, or die young, as with David MacKay. His reality follows:

<https://www.youtube.com/watch?v=sCyidsxIDtQ>

What is "Real" Science?

To me, as an engineer and physicist, that is deterministic science you can prove. This requires a definite theory that must repeatably predict the dependent variable that is observed, every time it is tested. Where the sceptical science of definite theory proven by observation in a controlled experiment is followed, **there should be NO possibility of reproducibility and integrity**, because the tests are unambiguous, independent and absolute.

Consensual Science:

But real science is hard, and most theories are proven wrong when tested. So, with the advent of departments set up to manipulate data statistically in computers, the "science " of modelling has arisen. This purports to prove science in a computer without a definite theory, nor the need for observational proof. The computer says YES!

The approach, of trusting in models as if science fact, empowers and facilitates many of the problematic science papers you are aware of, increasingly prevalent in the increasingly mediocre, hence often pointless, output of University "science". Examples are sociology, economics, epidemiology, none of which are true sciences, and where there are no laws, just competing beliefs. These are often wrong, but increasingly form the majority of University "research".

Consensual science approaches, of correlating a vague theory instead of testing a definite theory, inherently deny the methods of deterministic science. But it is much easier to establish a consensus of experts, a lot of academics agreeing on something they prefer to believe in, that may be, and often is, wrong in fact.

If it is provable by observation, there is no need of a consensus.

At the lower levels, consensus is a tribal religion, a departmental belief system, founded in a core assertion that cannot be proved, but must be believed for the related "science" to hang together. Questioning an unproven founding assertion cannot be defended, so challenges to it are attacked in ad hominem fashion, the methods of the Inquisition.

This is not science as it is supposed to be conducted.

Hence the already identified, large and growing problem of reproducibility and integrity.

But there is no quick recognition and career as an expert/professor in the hard approach of deterministic science, so its better to pick on a soft science - because its definition is indefinite/vague, [so it can neither be proven nor disproven, as hard science can.](#)

Pay to Prove Culture:

University science has embraced subjects using this approach to enable its pursuit of money and size. Because it does not require great minds, and ensures a steady output of unprovable junk science. That is funded based on what is supported by the agendas of politicians who provide the funding and the internal politics of Universities and internal belief systems, which may be disagree with what we know we can prove.

Figuratively, University academics increasingly answer their sponsors question "How do you think that works" with the question "How would you like it to work?". An old accountancy principle, re-purposed for science using models.

The pay to prove culture corrupts absolutely. The corruption comes mainly from government and its funding preferences.

To bastardise Bertrand Russell "What is required is not the will to understand, but the will to believe"

If science is led by belief, money and politics, not the will to understand, how can it be repeatable or have integrity?

All this is funded by the unknowing taxpayer, who self- evidently gains no benefit from much of it. Because it's wrong. Worse, the knock-on costs of laws enacted in its name by political sponsors can be extreme, regressive and ultimately unnecessary - in science fact.

To Summarise Some of the Points I Hope I Made:

1. Science must lead politics. Politics, power and profit should never lead the science. But that is *exactly* what pseudo science and the consensual approach was created to do.
2. Science does not exist to prove things, it exists to understand them, by sceptical testing of theories by observation, mostly disproving or improving them. Consensual science has not been proven. Claiming proof by model is deceitful. It's either a definite theory that's proven right every time by observation. Or it's a model, unprovable, probably wrong, not science anyone should act upon.

This is a concept politicians struggle to understand. Especially when "the science" does not support their desired outcome.

3. There is no easy money, fame or even a celebrity scientist career for most in hard science. So only the best and most resilient can participate in real deterministic scientific research. Even a sociologist can work that out.
4. The industrialisation of University science is creating a growing output of questionable "science" of diminishing quality, from increasingly less able academics as numbers increase. A self-evident fact, as they represent a greater percentage of the population, so must have increasingly unexceptional intelligence. The less able form priesthoods who create consensus around shared beliefs that they "prove" using models. There are too many so called "scientists" in "University Research" writing papers of marginal or no academic merit to meet output targets, support consensual science beliefs, and hence attract more funding.
5. Funding should be re-directed to prefer testing theories science can actually prove, over what it cannot. Less models and more actual, useful, science. Research, other than pure research, should add measurable value, not regressive cost.

6. SCIENTIFIC METHOD: An enquiry such as yours should make a key point of the need for the proof of "science" by observation over guessed predictions if ANY political action is to be taken in the name of any science. Especially when actual effects are small relative to nature, slow moving, and their cause unproven and very debatable.

e.g. The newly invented alternative science of the UN IPCC claims to replace the proven science of climatology, that science has proven the barometric formulae for, used every day in applied science. The IPCC assert their alternative reality using computer models that cannot be proven, that massively over-predict observed reality since 1979. In this example models assume all observed change is caused by humans, and attribute it to CO₂, when science knows change is typical of the natural observed cyclic change in the record of the last 10,000 years - with 1850 the coldest for 8,000 years. Now only 1 deg warmer in the 150 years since, a change completely normal in both the rate and range of past warmings observed in proxy temperature ice core records. Now is 2 degrees colder than 8,000 years ago. This reality is simply denied by modellers who assume all change is unnatural. Their predictions are thus very wrong, because their assumptions are very wrong. Climate "science", hence legislation, is based on rejecting the observation of nature in favour of extrapolating an unprovable belief, that observations prove wrong.

How is this rational or wise? This problem extends to epidemiology where it also causes real damage to people.

7. Perhaps the biggest problem is in subjects like physics and chemistry, which overtly appear “scientific”, and are definable by absolute laws and mathematics. These have been corrupted by allowing the use of statistical models, using the a priori attribution methods of sociology, economics and epidemiology (including clinical trials) to what should be deterministic science, testing a definite theory by observations - **especially if anything is to be justified in its name.**

May be right. May be wrong. Not proven. They can't claim to know.

8. Worse, assertions declared proven by a consensus, in fact claims that cannot be proven but must be believed, then go on to be the unquestionable basis that other bad science is built upon, as if proven. So we have CO2 as an existential "proven" threat - hence meat production, etc. When physics knows that CO2 is not the control of climate, because that is the oceanic response to surface temperature change. In fact what GHE there is from CO2 is a tiny and mostly saturated effect on the lapse rate, that is not itself created by the "Greenhouse Effect", as the IPCC assert.

Climatology has known the actual mechanisms for 100 years. But anyone who understands the science facts and makes them known is attacked personally and will likely lose their career and livelihood if they persist.

9. Few politicians understand these clear and crucial distinctions. It's almost counter cultural in politics to think you can't win an argument that supports your beliefs or assertions, by "debating it". Then passing your winning deceit into law by a vote.

10. The committee should have included climate change and economics in their list, because that science is overtly presumptive guesswork, engineered in models using statistics, not deterministic. So wrong in most cases, by the observations taken to validate the predictions.

11. We should prefer research that can be proven and deployed in society to add value, and pay our economy back £7 for every £1 spent. Versus the massive net cost some current science creates, or proves nothing of real value, so simply wastes.

nb: How are such benefits measured for social sciences, astronomy, history, climate science, etc.?

12. Pointlessly damaging or unnecessary political and commercial responses are justified by the output of irreproducible and dishonest "science" from our Universities, the output of an expanding industry of pay-to-prove consensual science.

This is a real cost and clear threat to the development of a technologically dependent society.

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