Comments on Controversy Manual, 2014

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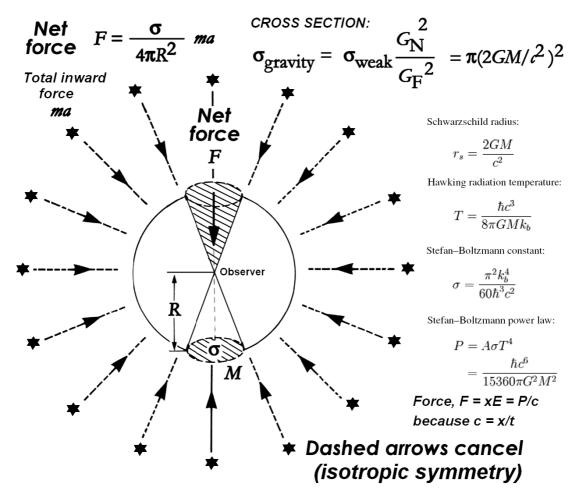
7 June 2014

ABSTRACT

Professor Brian Martin, a physicist and now professor of social sciences at Wollongong University, Australia, has published a *Controversy Manual* (Irene Publishing, 2014). It's blurb states: "If you care about an issue, how can you be more effective in arguing for your viewpoint and campaigning in support of it? ... The *Controversy Manual* provides information for understanding controversies, arguing against opponents, getting your message out, and defending against attack. ... the emphasis is on fostering fair and open debate and opposing those who use power and manipulation to get their way." On page 112, Martin explains how controversies are resolved: "a controversy is closed. What this means is that there is little or no debate. It doesn't necessarily mean that everyone agrees, just that the weaker side is hardly trying any more, or perhaps is totally excluded from public arenas."

INTRODUCTION

Our example "controversy": spin-1 quanta exchanged by masses in U(1) dark energy will, by analogy to the Casimir attraction, push together local masses like M and observer, due to the accelerating universe (F = ma, & Newton's 3rd law), predicting coupling G. Offshell Hawking radiation for the *same* cross-section predicts the EM coupling (see our vixra papers, e.g. 1304.0175v1):



Martin's "Controversy Manual" (2014) on page 113 details the following controversy resolutions:

• Leading partisans on one side die, retire or burn out...[This "progress by death" is Max Planck's account of the triumph of his quantum theory success over bigots.]

• Key outlets — usually including scientific journals and mass media — no longer accept or cover one side... [The BBC banned anti-AGW news in 2006.]

• Informed opinion — meaning the most prominent and influential scientists, editors, politicians or other leaders — supports one side... [This fails if both "sides" are simply wrong and the truth is beyond the horizon at time of debate.]

• One side is so stigmatised or discredited that few will admit to supporting its position. [Being against eugenics was stigmatised pro-overpopulation/starvation.]

• All sources of research funding accept one position, so it is impossible to investigate alternatives. [String theory, after the April 1996 *Physics Today* article.]

• A key meeting of opinion leaders — scientists, politicians or others — endorses one position, and most others go along with it. [Groupthink coercion/persuasion.]

• Challengers to orthodoxy are discriminated against, sometimes to the extent of losing their jobs. [Banning critical thinking, by banning devil's advocate in debates.]

• A government makes a decision that endorses one position, and adopts policies that enforce it. [UK gives £100,000 tax annually in subsidies for each "green" job.]

• A public referendum supports one position, leading to policies that enforce it. [Science "settles" on false theories when under pressure from rich political lobbies.]

"Quite commonly, more than one of these sorts of possibilities is involved."

C. S. Lewis described the rise of moralistic science which believes it can use moral superiority to "close down controversies" by scare-mongering about the alternatives: "... omnipotent moral busybodies ... who torment us for our own good will torment us without end, for they do so with the approval of their own conscience." What happens is that idealists, communists, Marxists, eugenicists and others start out honestly preaching their agenda, fail to get votes or praise, and then turn to camouflaged tactics of trying to win by attacking the alternative ideas using dishonest tricks, the corrupting science and scare-mongering arguments to shut down debates. In the 1930s, left wing pro-disarmament propaganda exaggerated the likelihood of the employment of gas and its effects to in effect prevent war preparations from deterring Hitler's actions. In reality, scare-mongering tactics are just playground competitions in trying to scream the loudest, because proponents of re-armament pointed out the dangers from disarming in the face of an aggressor and thus being annihilated.

We want to debunk subjective arguments that are used to stifle debate and prevent objective evidence from being aired.

The stifling of arguments which are below the media's radar, not the mainstream "pro" or "against" arguments (the tactic of "closing down the argument"):

Let's make this clear: there are controversies everywhere in the media every day, but that doesn't mean that either side that is afforded limelight in the debate is right. The idea that if left wing dictatorship is deplorable, you need right-wing fascism to "balance" the debate is plain wrong. Mixing together two types of equally deplorable extremism or equally vacuous falsehood in an effort to achieve harmony and consensus or rational debate is the usual source of wars and fights.

If you want to simply preserve status quo and provide some cheap style entertainment, it is a good idea to bring extremists together. The problem, however, is that the truth is probably below the radar: unknown and consequently unfashionable and unpopular.

What we are going to do below is to give quotations from what we consider the most useful suggestions of Martin in his 467 pages long book. We hope that this will *compress* the key arguments into a *briefer* form *for those with alternative ideas that can't get any mainstream attention, due to mainstream controversies between idiots*.

Martin, p16: "my aim is not to adjudicate controversies or to provide a balanced view, much less to cover every possible claim and objection, but to offer some ways to understand and engage in controversies."

Martin, p17: "However, the information here isn't entirely neutral. It is more likely to help those who play fair. There is information about the role of groups with vested interests, and how to counter them. There is information on suppression of dissent and how to counter it. There is information on how to build support for a campaign, using a variety of methods from letters to rallies. I believe scientific controversies should be carried out in an open and fair fashion. This means they shouldn't be determined by the influence of powerful groups or by unscrupulous means. Therefore, I emphasise how to counter powerful groups and respond to abuse and underhanded methods. My hope is the information here will especially help those who seek to promote public understanding of the issues and to enable interested members of the public to participate in decision making."

Martin, p 18: "Global warming is occurring at an unprecedented rate, almost certainly due to human activities."

The problems here are: (1) the Hockey Stick diagram, which suppresses the true extent of climate variability in the past by *assuming* that tree ring growth rates and oxygen-16/-18 ratios from ice are direct indicators of temperature. This isn't true (and suppresses extrapolate temperature variability) because these temperature proxies are also functions of cloud cover which Michael Mann *assumed* to be constant (ice sublimation and tree ring growth depends on the ultraviolet getting through cloud). (2) negative feedback from water vapour is the formation of cloud cover, the probability of cloud formation increasing with humidity. Humid (moist) air absorbs infrared radiation, warms and buoyantly rises and expands until the moisture condenses into cloud droplets, which shadow and cool the altitudes below. This is negative feedback. Because water vapour is a much stronger greenhouse gas than carbon dioxide, it regulates climate and causes cloud cover to be temperature

dependent, a factor that Mann's temperature proxy (tree ring, O-16/-18 in ice cores, etc.) simply ignore. When you allow for the fact that cloud cover increases when temperatures increase, due to extra water evaporation from warm seas, you immediately see that the proxies don't in reality respond as much as Mann assumes, thereby underestimating the true amount of temperature change. For example, a 1 C rise in temperature won't increase tree growth or ice sublimation as much as Mann estimates, because the accompanying increase in cloud cover will reduce radiant energy delivery and partially offsets the effect predicted from temperature alone. Trees subjected to *both* a 1 C temperature rise and an increased shading from ultraviolet radiation by extra cloud cover, don't grow as fast as trees subjected to merely 1 C temperature rise in a controlled greenhouse without a cloud cover change.

Because of this, we have made the case (see our vixra papers) that climate change is naturally very variable due not to "energy forcing" from the sun, but to a more subtle mechanism called the nuclear physics Wilson cloud chamber. Humid air at high altitude where cirrus cloud forms is naturally very clean of particulate, so ionization trails from cosmic rays can be important in providing charged nuclei for cloud droplet condensation (as in Wilson's cloud chambers, where cloud trails are caused by cosmic rays in humid, low pressure air). A correlation is experimentally observed between cosmic ray intensity and global temperature, justifying this hypothesis. This is not "energy forcing" by the sun, contrary to IPCC propaganda. Of course cosmic rays don't carry enough energy to modify climate (a lethal radiation dose of 10 Grays is only 10 Joules of radiation per kg of matter), and the cosmic ray intensity is inversely dependent on temperature anyway. Instead of "solar forcing", cosmic rays create cirrus clouds at high altitudes, which cool the lower altitude, precisely as data show. All 21 of the 2007 IPCC climate models simply ignored negative feedback altogether!

Martin, p19: "• The evidence for global warming is flawed and inadequate: the earth's climate has often varied in the past. • Even if global warming is occurring, human activities play only a small role in it. • Curbing carbon dioxide emissions would be harmful to the world economy. • It is more cost effective to address other environmental and social problems."

The first two points quoted here are resolved (as discussed above) by negative feedback from water: as temperatures rise, you get more evaporation and cloud which cools the earth below by reflection and absorption of solar radiation. Convection ensures that warm air rises, instead of falling. This mechanism is just ignored by Martin, perhaps because it is a minority fact. If, in a debate, one person is shouting "1 + 1 = 5" and another is shouting "1 + 1 = 0", the media will tend to report these idiots and to rigorously suppress and censor, in the interests of "keeping the noise level down", anybody who quietly points out "1 + 1 = 2". In other words, the media and mainstream science is obsessed with big mouth authority con artists who shout the loudest, drowning out anyone with the correct solution. Might is right, as far as the great "freedom of the media" is concerned. Why is "freedom of the media" so important, anyway? It is like arguing for "freedom for dictators". If the media made an honest effort to dig up the unpopular, objective facts, then OK. But it doesn't! It defers to medieval pre-enlightenment authority, consensus, and power politics.

Martin, p20: "Nearly all climate scientists and other relevant experts say climate change is occurring, mainly due to human activities. A small number of scientists argue to the contrary."

The climate is changing, there's 50% chance of increasing temperatures and 50% of falling. When temperatures were falling, scare-mongerers in the 1970s forecast an ice age and linked it theoretically to pollution obscuring sunlight; they reversed this when data reversed! If journalists went to Germany in 1938, you'd find a "consensus" regarding eugenics. If they went to the Soviet Union, they'd find the same for Marxist "economic science", especially if the KGB were helping with the public relations and translation. If you look at the democratically weakest, socially most dictatorial institutions today like the UN and EU, you find they are the strongest proponents of biased "science" funding to "justify" socialist agenda politics to enforce Third World eugenics by international law and using bigotry to exterminate criticism, a one-sided funding for quack "science" agendas. There has to be, or quacks could be kicked out. So it's no coincidence that the Nazis had the Gestapo, the USSR had the KGB, and East Germany had the Stasi. They had to have them, because they couldn't survive while tolerating dissent. Censorship of dissent is absolutely imperative for falsehoods and resulting evil to survive. As soon as you tolerate dissent, it sinks.

What we're concerned with is something totally different: the toleration and dismissal of weak or "straw man" dissent, while real dissent is still stifled. The BBC and *Guardian* love strawmen, just as Stalin and Hitler loved hanging weak opponents, to deter others with stronger methods from risking an attack on the dictatorial status quo. They ignore real opponents, however, and censor out all news of effective attacks.

Martin p 21: "A scientific controversy is a debate, dispute or disagreement about something to do with science. To count as a controversy, the debate needs to occur over an extended period or involve a lot of people." (Emphasis added.)

Here, Martin is getting to a vital point we are interested in: the definition of "controversy." As we stated, unfair mainstream power politics tries to warp everything in its favour, to move all the goalposts to suit itself. One of these tricks is using ambiguous definitions of what a "controversy" actually is. So a dictatorial defender of status quo will permit a suitably minor or "straw man" opponent to enter the arena to be torn to pieces by orthodoxy's lions, while censoring or banning stronger opponents who can take on lions. Alternatively, if the opponent is strong it may simply bend the rules to ensure that the "right" side wins, for example by staging the fight unfairly. The opponent has wrists and ankles tied together and the fight is declared over and finished as soon as he falls without giving him a chance to return to his feed, whereas the fight is protracted while the lions are allowed time to get up after being knocked down. This unfair bias, with a bit of editorial camera trickery or misquotation in print, creates the false illusion that the only opponents to the regime are weaklings or fools to be laughed at. So it bolsters, rather than damages, the credibility of the dictatorship. It also allows the regime to pretend that criticisms are allowed, even encouraged, but the perpetrators of falsehoods must then be punished.

According to Martin's definition of "controversy" as occurring over an extended period or involving a lot of people, the media has some control because it determines when "the science has settled" in debates between two groups of loud thug gangs.

Once the "controversy" is over, and of course before it is over, any odd lone individuals who turn up new evidence are simply censored out, on the basis that their media appeal is insignificant and the "controversy has been resolved."

Martin, p22: "Scientific and social issues are often mixed together and interact with each other."

This is especially true where there is no immediate or obvious technology associated with the science, for example evolution (Darwin didn't invent hybridising, didn't discover genetics, and didn't apply eugenics quackery). The reason why evolution became controversial was that it was used by certain religious Protestants and Reformers, and certainly by many atheists, to attack some religious zealots and bigots. Huxley in particular derived great joy from defending Darwin's idea from religious dogma. This kind of thing is not science but just a fanfare of staged marketing. Again, with Einstein the correct equations of special relativity were published with a mechanical derivation by FitzGerald in 1889, Lorentz in 1893, Larmor in 1901 and Poincare in 1904, as Sir Edmund Whittaker pointed out to the annoyance of Einstein's biographer Abraham Pais. Einstein's weakest claim to fame scientifically was special relativity, because his most ingenious work was in general relativity, the contribution of the stimulated emission of radiation to the derivation of Planck's spectrum, and many other insights. The popular media and the gullible physics pseudoscience fans prefer special relativity precisely because it Einstein's version is counterintuitive. Scientists who produce *understandable* insights are *less exciting*, *less controversial*.

Martin, p25: "In many controversies, authority figures — scientists, politicians or media commentators — will say what they think are the real issues, and then dismiss other concerns as irrelevant."

Martin, p28: "There are, inevitably, some intermediate positions. For example, it is possible to argue that significant global warming is occurring but abatement measures are unwise. Or that the evidence for global warming is not all that good but nevertheless it is vital that measures be taken to reduce greenhouse gas emissions. But these sorts of intermediate positions receive relatively little attention. Most of the time, the debates is seen as between the **two coherent positions**."

This two-option choice is really what we identify to be the problem: the controversy examines and airs a debate between two options over come period of time, then it gets boring or one side loses financial backing and the controversy "settles". During this time, other options, below the radar of the media, or over the horizon, have never been debated or examined. The two-option choice is also a delusion because it is possible that science will only happen to throw up critical evidence after that debate has been closed down. Scientific controversies should therefore be kept open until the mechanisms and dynamics and data are all in, until all data interpretation and theoretical prediction checks have been done, and not "closed down" prematurely! The politicians and the media soon tire of scientific controversy and demand consensus, which closes down the argument prematurely. Once the politicians sign a funding contract to the scientists, they're burning their bridges or hosting themselves with their own petards if they then permit any of their kin to overturn the apple cart.

Martin, p29: "Thomas Kuhn, an historian of science, said that within a research field, most scientists carry out their investigations using a standard set of assumptions, methods and goals. They don't actively try to disprove their basic approach. This sort of research, undertaken within the prevailing ideas, Kuhn called "normal science." The standard set of assumptions, methods and goals is called a "paradigm." … One problem with the Ptolemaic model was that observations of some celestial objects — such as planets Venus and Mars — didn't fit the model, which assumed objects followed circular orbits. So the idea of epicycles, circular orbits around circular orbits, was introduced. Then more epicycles became necessary. The Ptolemaic model became very complicated with ever more epicycles."

This goes on in an unsatisfactory way on page 30, to allege that Copernicus reduced the number of epicycles with his solar system model, before Kepler eliminated epicycles altogether by introducing ellipses. In fact, the story according to Koestler's *The Sleepwalkers* is that **Ptolemy had exactly 40 epicycles and Copernicus had exactly 48**. Koestler claimed that Copernicus was a "book that nobody read" precisely for this reason (some American politician later went around the world examining every surviving copy from 1543, to prove that it had been read, although reading is not the same as comprehending). Koestler proved how historians asserted that Copernicus reduced the number of epicycles, when the opposite was true:

"The Book that Nobody Read

"THE *Book of the Revolutions of the Heavenly Spheres* was and is an all-time worstseller. Its first edition, Nuremberg 1543, numbered a thousand copies, which were never sold out. It had altogether four reprints in four hundred years: Basle 1566, Amsterdam 1617, Warsaw 1854, and Torun 1873. It is a remarkable negative record, and quite unique among books which made history. To appreciate its significance, it must be compared with the circulation of other contemporary works on astronomy. The most popular among them was the textbook by a Yorkshireman, John Holywood, known as Sacrobosco (died 1256), which saw no less than fifty-nine editions. ...

"The main reason for this neglect is the book's supreme unreadability. ... The giveaway is the number of epicycles in the Copernican system. At the end of his *Commentariolus*, Copernicus had announced (see p. 145 f): 'altogether, therefore, thirty-four circles suffice to explain the entire structure of the universe and the entire ballet of the planets.' But the *Commentariolus* had merely been an optimistic preliminary announcement; when Copernicus got down to detail in the Revolutions, he was forced to add more and more wheels to his machinery, and their number grew to nearly fifty. But since he does not add them up anywhere, and there is no summary to his book, this fact has escaped attention. Even the former Astronomer Royal, Sir Harold Spencer Jones, fell into the trap by stating in *Chambers's Encyclopaedia* that Copernicus reduced the number of epicycles 'from eighty to thirty-four'. ... In fact, Copernicus uses altogether forty-eight ..."

This destroys the nonsense of "Occam's Razor". The *correct* theory is not the "simplest" (however that is defined), but is the *accurate* theory. Sure, approximations can usually be made (such as by ignoring relativity effects in quantum mechanics) to give simpler equations that are easier and faster to solve, but you cannot rely on "Occam's Razor" to define validity by simplicity when there is a trade-off with

accuracy that needs to be considered. How much accuracy will you sacrifice to increase simplicity? In general "simplistic" is a derogatory dismissal of Occam.

Martin p.30:

"How to deal with a threatening research study

- Ignore it.
- Question the quality of the research.
- Note that the findings don't apply to all situations.
- Say the researchers or research methods were biased.
- Say the research is funded by a group with a vested interest.
- Say the researchers have a conflict of interest.
- Question the relevance of the research: it doesn't address core concerns.

• Note that other research gives different results and focus on the research that supports your own position.

• Say that the study is not definitive: more research is needed."

In other words, a similar stonewalling system to that in "Yes Minister's" episode "The Greasy Pole": if you see someone using subjective "arguments" instead of objectively checking the strongest evidence of a critic, you know they've lost the argument and are just resorting to smear tactics and censorship tactics. For this reason, "bigshots" rarely use such arguments against critics unless they can bend the goalposts by "closing down the debate" immediately after they have fired their attack in the media, and refusing to enter further discussions, or they use intermediaries (gatekeepers).

Martin, p33: "evidence doesn't speak for itself. Just because some new research findings are published doesn't mean they will make any difference. What does make a difference is how partisans use the evidence in their campaigning. ... There are too many examples of bias and distortion, especially when vested interests are involved, to rely on any findings."

This is crucial and radical: *the usual party line is that evidence does speak for itself, you simply get published and the job is done.* In reality, as Max Planck wrote in his *Scientific Autobiography,* the reality is that publishing the facts doesn't win over the hardened bigots. Their whole careers are based on false dogma and who have become accustomed and welcoming towards the errors or "anomalies" in their own system, but who viciously reject the errors and anomalies in the systems of others.

Martin, p35:

"Many people get their information from the media, but unfortunately some journalists also do not understand statistics and just report claims from advocates without scrutiny. The result is that claims with little or no foundation can be perpetuated. In the debate about the effects of nuclear war, peace activists have long stated or suggested that everyone will die. Some have said that nuclear arsenals represent "overkill," enough destructive power to kill everyone in the world many times over. However, it is difficult to track this claim back to a careful calculation, aside from an extrapolation from the effects of the atomic bombs dropped on Hiroshima and Nagasaki in 1945, assuming that subsequent arsenals would kill the same number of people per ton of explosive power."

The problem is that as you go to bigger yields, the bombs kill fewer people per ton because the damaged areas don't scale up directly with the yield. An overpressure of 1 psi arrives 1 mile from a 1 kiloton blast at 4 seconds after burst, lasting under half a second. For 1 megaton, it takes 40 seconds for the same overpressure to arrive, 10 miles away, lasting fewer than 5 seconds. This gives most people plenty of time to take pretty good cover against flying debris and blast winds on seeing the flash, before the blast eventually arrives. Tall buildings would cast protective thermal shadows in the streets and absorb much of the blast and nuclear radiation level at street level even in a nuclear air burst, never mind a surface burst, as George R. Stanbury of the Home Office proved in his 1964 paper "Ignition and fire spread in urban areas after nuclear attack."

Many in Hiroshima were outdoors at 8:15 am, in a city chiefly consisting of 1-2 storey wood frame houses, in which the firestorm was caused not by thermal radiation but rather by the blast in overturning now-long-obsolete charcoal braziers amid traditional Japanese paper screens, bamboo furnishings, and similar inflammable tinder (reference: 1947 secret USSBS report 92, vol. 2). Also, as the Glasstone and Dolan point out that (Effects of Nuclear Weapons, 3rd edition) the median survival range in Hiroshima was 0.12 mile in concrete buildings, compared to 1.3 miles outdoors. The difference in median lethal areas is 120 fold, i.e. going into a modern city concrete buildings shields the thermal, blast and radiation effects to the extent that 120,000 casualties outdoors in a desert nuclear test would be reduced to 1,000 in concrete buildings. As Kearny pointed out, cheap plastic bags of water piled on and around a table provides a cheap and quick fallout radiation shelter for even the poorest in society. Fallout dust ingress can be cleaned up with a damp cloth just like regular dust, and then dumped outside.

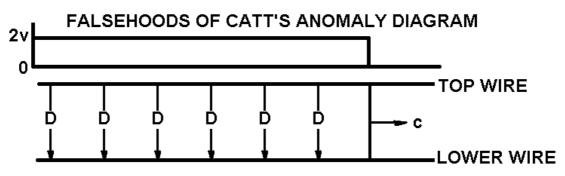
Martin, p36: "However, most people have no idea about research on the effects of nuclear weapons and, especially if they are opposed to nuclear weapons, are ready to believe the worst — including that everyone will die."

It was a similar exaggeration of the scale of attack, rate of escalation, and effects of attack which "discredited" civil defence in the 1930s, helping thereby to ensure that appearement was employed so that Hitler was enabled to murder 6 million people, instead of preventative war. They got war anyway, and were unable to save 6 million.

Martin, p69: "Wily challengers will try to put the burden of proof on the orthodoxy, using techniques such as framing and deconstruction. ... if they can't prove their claims to your satisfaction, then your position must be correct. This is the thinking behind conspiracy theories: if there are flaws in the standard explanation, there must be a conspiracy (rather than some other explanation). Those who say the moon landings didn't actually happen use this technique: some details of the standard story don't seem to add up — *therefore* there must be a conspiracy."

This is the problem of the loudest shouting "alternative theory" getting the argument wrong and queering the pitch for all others. Ivor Catt's "Anomaly" for example uses this technique and is simply ignored because there are many anomalies and

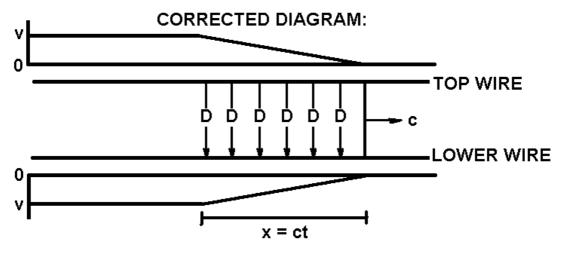
controversies in mainstream theories. Catt's anomaly in any case contains an error, by assuming Heaviside's discontinuous logic step is a reliable model when it isn't:



1. There is no 'displacement current' while voltage is steady.

2. If there was a really abrupt step-rise, INFINITE radio emission and displacement would occur at the step.

Maxwell's 'displacement current' D = dE/dt ~ dv/(x.dt) ~ v/(xt) ~ v/(ct²), where x is rise time width (x = ct) and t is rise time. Radio emission occurs in proportion to di/dt (as the current varies), while the voltage varies.



Radio signals from each wire cancel each other out exactly at long distances, so energy is merely exchanged between wires.

Martin, p71: "Popper said scientific theories can never be proved, because it is always possible that new evidence will show them to be false. This means all knowledge is provisional. Popper advocated an approach called falsificationism, saying that scientists should attempt to falsify (disprove) their theories. He said that any theory that could not be falsified was not scientific."

Popper is actually a liar because science is the opposite of his conception of a fully developed theory that emerges at birth and thereafter is persistently attacked by the

scientists who have developed it but who are in fact dedicated to its destruction! Absurd! The reality is the exact opposite of Popper's falsification idea.

A theory is born helpless, full of defects and inadequacies and the scientist nurturing it believes in it dogmatically and spends and invests time improving it, developing it, coaxing it to overcome its proponents and to make predictions. As Max Planck and others have made plain, the most rigorous and powerful proponents of scientific theories eventually invest so much in their ideas that they become a dogmatic belief.

Put another way, there are two groups of scientists interested in any big-shot theory: protagonists and opponents. Those in favour of it see problems as challenges to be overcome and deserving research; those against it see the problems as reasons to dismiss it and cut funding. In any difficulty in life, we have the same choice: do we cut our losses and give up, or do we "never, never give in" as Churchill demands? It's a pretty subjective question so often prejudice decides the matter. If you don't want to do something, you use any evidence of difficulty as a convenient excuse to justify your decision to quit. If you are motivated to achieve success in that activity, however, you instead seize on any difficulty as an excuse to devote more time to it!

Martin, p71: "In a typical controversy, individuals can be involved at various levels. At the centre are highly active partisans, some putting every available free moment into campaigning. These are the core campaigners."

These core campaigners are the noisy Lenins who thrive on controversy. The genuine scientific workers, who spend their available time actually doing science, rather than blathering in debates, are effectively elbowed out of the argument by the noisy Lenins, who are mistaken for experts by the media who confuse noise for science.

Martin, p76: "Many students are taught science as if it is the truth about the world. Standard theories such as evolution and relativity are commonly taught as certified knowledge rather than as constructs that have proven to be useful but are always open to challenge and revision. ... researchers learn that establishing facts and testing theories involves ambiguity, uncertainty and questioning. However, this questioning has strict limits: it is seldom applied to standard views in the field. Many scientists ignore or dismiss research findings that conflict with standard ideas ..."

Martin, p78: "Within science, the standard rhetoric is that claims are judged on their merit. ... In practice, though, there are many departures from the ideal."

Martin, p90:

"Summary: scientists and controversies

• Most scientists are technical specialists. Few are politically sophisticated.

• Most scientists are primarily oriented to peers: they seek, above all, respect from others like themselves. Hence most are reluctant to become engaged in public controversies.

• Many scientists feel superior to those without scientific credentials, jobs or research experience. Hence they may dismiss the capabilities of such campaigners.

• Scientists are easily used by powerful groups, via research funding and job prospects. Only a minority of scientists will pursue research paths away from the mainstream where ample money is available.

• Scientists, outside of their specialities, can be just as emotional and biased as other people."

Martin, p254:

"Lying by omission

A lot of people — politicians especially — think it's only a lie if you say something you know is false: if you can avoid saying something technically wrong, then you haven't lied. In such situations, if you don't want to use the word "lying," you can say "deceiving.""

This is the problem with the "case" by Pauli and Fierz for spin-2 gravitons, as explained in our other vixra papers. E.g., the vital caveats are omitted and spin-2 gravitons are falsely presented as a fact because if the universe only had two masses in it (which it doesn't) and those two masses attracted (which wouldn't happen in that imaginary situation, based on our results) then spin-2 gravitons would be implied.

The remainder of the book deals with setting up political lobby groups, non-violent action (group protests etc.) which are hardly relevant for unpopular, unfashionable scientific facts that have no followers. It doesn't quite get to citing practical handbooks for coup d'etat, assassinations or terrorism. But on page 350 it does cite the 1984 CND/Peace News manual by Howard Clark, Sheryl Crown, Angela McKee and Hugh MacPherson, *Preparing for Nonviolent Direct Action*, War Resisters' International *Handbook for Nonviolent Campaigns* (2009), and various other civil disobedience and nonviolent campaigning handbooks. All of this is particularly unhelpful for real science innovation which is individualism versus socialist groupthink, not the other way around like the various biased environmentalists and communist political lobbies.

In any case, if science isn't a popularity context or a fashion parade, then it's success should be judged on its predictions, not on the number or chanting volume of followers. That said, if there is absolutely no interest, it has a marketing problem. While a new theory's proponent who is anti-groupthink won't want or crave "popularity", the person might want objective discussion to debunk mainstream dogma and to help develop the idea.

Martin, p387: "Don't present yourself as the "expert" even if you are. Instead, let others draw that conclusion and present you that way themselves."

Martin, p426: "8.2 Supporting free speech

"In the early 1980s, when I worked at the Australian National University and was active in the anti-nuclear power movement, a leading opponent of nuclear power sent a letter to the Vice-Chancellor of the university. The letter stated that Sir Ernest Titterton, a prominent supporter of nuclear power who also worked at the ANU, had made mistakes in a publication and the university should disown and withdraw it. I wrote to the Vice-Chancellor saying I supported Sir Ernest's right to publish on nuclear power, despite any alleged mistakes. Why did I defend Sir Ernest's speech when I disagreed with him? I knew that if the university started restricting academic freedom to comment on controversial issues, including those outside one's formal expertise, I was much more vulnerable than Sir Ernest."

But surely, honesty requires that science sticks to objectivity and searching for facts. We need objective censorship (preferably correction, not deletion) of non-factual arguments in order to keep science to factual matters, rather than political hogwash.

Ideas from my communications undergraduate course module are included below:

COMMUNICATION FOR LEARNING

LITERARY AND ORATORY COMMUNICATION SKILLS

Written reports as well as oral presentations or lectures should aim for *clarity of explanation*:

- (1) Introduction to the aims of the presentation or lecture
- (2) Define specific issues for critical analysis
- (3) Support for the importance of the issues using background research information with sources
- (4) New evidence, arguments and analysis (evaluation of alternative approaches and theories)
- (5) Clear, coherent, balanced, structured conclusions, involving independent/original thought

About 100 words per minute is the maximum to be communicated successfully.

Organised meetings should consist of disciplined, businesslike project management:

- (1) Keep a record of those present, absent, and those who have sent apologies for being absent
- (2) Keep written minutes of discussions and arguments, to keep track of project developments
- (3) Change the group leader for meetings if that is necessary for different projects to be discussed
- (4) Identify the skills of each person and ensure that everyone is assigned appropriate projects
- (5) Plan each project to allocate work to each person with a target timetable (project schedule)
- (6) People should defend their arguments with assertions of proven facts, not opinionated arrogance
- (7) Brainstorming for subject analysis involves writing down people's ideas as a branching 'tree' chart

How to run a successful project:

- (1) Identify problems
- (2) Decide solutions to problems where they appear to be warranted
- (3) Implement solutions
- (4) Keep a numbered list of all sub-projects
- (5) Check progress of each sub-project regularly
- (6) Concentrate human and financial resources on any important sub-projects which are struggling
- (7) If all sub-projects are struggling on their own, try concentrating all available efforts on each in turn
- (8) If problems still cannot be solved, shelve existing difficult sub-projects and try new ideas instead

How to achieve success:

"Nothing in the world can take the place of persistence." – R. Kroc, founder of McDonald's.

"Probably, indeed, the larger part of the labour of an author in composing his work is critical labour: the labour of sifting, combining, constructing, expunging, correcting, testing: this frightful toil is as much critical as creative." – T.S. Elliot, quoted by J. Fairfax and J. Moat (1981).

"You can do anything if you have enthusiasm. Enthusiasm is the yeast that makes your hope rise to the stars. Enthusiasm is the sparkle in your eye, it is the swing in your gait, the grip of your hand, the irresistible surge of your will and your energy to execute your ideas. Enthusiasts are fighters. They have fortitude. They have staying qualities. Enthusiasm is the bottom of all progress! With it is accomplishment. Without it there are only alibis." – Henry Ford's Fireplace Motto.

- (1) Take an *interest* in whatever you want to be successful in: find *interesting* questions about it
- (2) Start thinking quickly, and slow down as you get tired (never start slowly, or you might fall asleep)
- (3) Do the most important work first (even if it is the work you do not like!)
- (4) Make yourself a realistic plan that you can be positive about

Stress management

- (1) Only lose your temper in a calculated, controlled manner. Avoid bad language. Make the reasons for your anger transparent. Do not lose your temper with the wrong people because you are afraid of blaming who is really responsible. If you cannot be seen to lose your temper, write down on paper a step-by-step analysis of why you are angry, and date it. You can keep a diary of the problems, and present it to the people concerned either directly as a written complaint, or indirectly as a complaint to a higher authority. This approach is far more productive with a red-tape system than shouting or swearing. (To try to defeat a dictator at their own game, do the exact opposite and try to intimidate with all the four letter words, shouting, anger, etc., you know, if you it is a choice between that or a physical war. Don't appease dictators who take it as weakness.)
- (2) Accept people with different standards from your own; don't judge them by your standards.
- (3) Accept people with different opinions from your own, at least on controversial matters, not facts.
- (4) Try to avoid or joke about crass inefficiency and incompetence: poorly paid people often try to 'get their own back' by being deliberately rude, inefficient, and incompetent in their meaningless jobs. The fact that they get in your way is because of their own annoyance and depression with low pay and bad prospects in life.
- (5) As a last resort, force yourself to laugh and ask yourself, "What will we get out of wasting our time arguing with these morons?" If their noise keep you up at night, stay up yourself and do some work, or plug your ears and sleep. Don't give them the satisfaction of ruining your life in addition to their own!
- (6) Accept the fact that many people will be critical of you. The world of full of idiots.
- (7) Never assume responsibility for events over which you have no control!
- (8) Break down big problems into manageable sub-projects.
- (9) Don't *worry* about risks or death: *safeguard yourself* against worry by getting *knowledge* about how to survive potential disasters, and buying suitable *insurance* against significant risks.

Stress is the natural means of dealing with dangers. Dr W. B. Cannon in 1909 exposed cats to barking dogs and studied the response of the cats to the danger. The cats automatically tried to psychologically deter potential enemies by arching their backs, raising fur, unsheathing their claws, baring their teeth, and prepared for a fight by increasing their blood pressure as well as their blood levels of glucose and adrenaline, shunting blood from their stomach and skin to their muscles, and increasing their heart beat rate. Cannon concluded that these stress responses "prepared the animal for fight or flight."

Long term stress obviously harms the individual. For example, the changes to the blood circulation under stress have the effect of reducing the blood supply to the stomach, thereby reducing the digestion rate. The increased pulse under stress creates unnecessary wear and tear on the heart. Short duration stress can help to motivate cardio-vascular exercise, but long duration stress is inevitably harmful.