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Latest news



The age of endarkenment

Why is no one questioning the rise of new-age nonsense in the name of science, asks **David Colquhoun**

The *Guardian* made very few cuts to the original version, but removed a lot of the links. If you want to have references to some of the claims that are made, try the original, which I reproduce here. Comments can be left at <http://dcscience.net/?p=38>

Science in an Age of Endarkenment

"Education: Elitist activity. Cost ineffective. Unpopular with Grey Suits. Now largely replaced by Training." Michael O'Donnell, in *A Sceptic's Medical Dictionary* (BMJ publishing, 1997).

The enlightenment was a beautiful thing. People cast aside dogma and authority. They started to think for themselves. Natural science flourished. Understanding of the real world increased. The hegemony of religion slowly declined. Real universities were created and eventually democracy took hold. The modern world was born. Until recently we were making good progress. So what went wrong?

The past 30 years or so have been an age of [endarkenment](#). It has been a period in which truth ceased to matter very much, and dogma and irrationality became once more respectable. This matters when people delude themselves into believing that we could be endangered at 45 minute's notice by non-existent weapons of mass destruction.

It matters when reputable accountants delude themselves into thinking that Enron-style accounting is acceptable.

It matters when people are deluded into thinking that they will be rewarded in paradise for killing themselves and others.

It matters when [bishops](#) attribute floods to a deity whose evident vengefulness and malevolence leave one reeling. And it matters when science teachers start to believe that the earth was created 6000 years ago.

These are serious examples of the endarkenment mentality, but I'll stick with my day job and consider what this mentality is doing to science.

One minor aspect of the endarkenment has been [a resurgence](#) in magical and superstitious ideas about medicine. The existence of homeopaths on the High Street won't usually do too much harm. Their sugar pills contain nothing. They won't poison your body; the greater danger is that they [poison your mind](#).

It is true that consulting a homeopath could endanger your health if it delays proper diagnosis, or if they recommend sugar pills to [prevent malaria](#), but the real objection is cultural. Homeopaths are a manifestation of a society in which wishful thinking matters more than truth; a society where what I say three times is true and never mind the facts.

If this attitude were restricted to half-educated herbalists and crackpot crystal gazers, perhaps one could shrug it off. But it isn't restricted to them. The endarkenment extends to the highest reaches of the media, government and universities. And it corrupts science itself.

Even respectable [newspapers](#) still run nonsensical astrology columns. Respected members of parliament seem quite unaware of what constitutes evidence. [Peter Hain](#) (Lab., Neath) set back medicine in Northern Ireland. [David Tredinnick](#) (Cons., Bosworth) advocated homeopathic treatment of foot and mouth disease. Caroline Flint [condoned homeopathy](#), and Lord Hunt referred to '[psychic surgery](#)' as a "profession" in a letter written in response to question by a clinical scientist

Under the influence of the Department of Health, normally sane pharmacologists on the [Medicines and Health Regulatory Authority](#), which is meant to "ensure the medicines work", [changed the rules](#) to allow homeopathic and herbal products to be labelled, misleadingly, with "traditional" uses, while requiring no evidence to be produced that they work.

Tony Blair himself created religiously-divided schools at a time when that has never been more obviously foolish, and he [defended in the House of Commons](#), schools run by '[young-earth creationists](#)', the lunatic fringe of religious zealots. The [ex-Head Science teacher](#) at Emmanuel College said

“Note every occasion when an evolutionary/old-earth paradigm . . . is explicitly mentioned . . . we must give the alternative (always better) Biblical explanation of the same data”:

This is not from the fundamentalists of the southern USA, but in Gateshead, UK.).

The [Blair's fascination](#) with pendulum wavers, crystals and other new age nonsense is well known. When their elders set examples like that, is it any surprise that [over 30% of students in the UK](#) now say they believe in creationism and "intelligent design"? As [Steve Jones](#) has pointed out so trenchantly, this makes it hard to teach them science at all. Welcome back, [Cardinal Bellarmine](#).

Homeopaths and herbalists may be anti-science but they are not nearly as worrying as the university vice-chancellors who try to justify the giving of bachelor of science degrees in subjects that are [anti-science](#) to their core. How, one may well ask, have universities got into the embarrassing position of having to answer questions like that?

Here are a couple of examples of how. The University of Bedfordshire (in its previous incarnation as the University of Luton) accredited a Foundation Degree course in 'nutritional therapy', at the [Institute of Optimum Nutrition](#) (IoN). The give-away is the term Nutritional *Therapy*. They are the folks who claim, with next to no evidence, that changing your diet, and buying from them a lot of expensive 'supplements', will cure almost any disease (even AIDS and cancer).

The IoN is run by Patrick Holford, whose [only qualification](#) in nutrition is a diploma awarded to himself by his own Institute. His advocacy of vitamin C as better than conventional drugs to treat AIDS is truly scary. His pretensions have been analysed effectively by [Ben Goldacre](#), and by [Holfordwatch](#). See the toe-curling details on [badscience.net](#).

The documents that relate to this accreditation are mind-boggling. One of the recommended books for the course, on "Energy Medicine" (a subject that is pure fantasy) has [been reviewed](#) thus.

"This book masquerades as science, but it amounts to little more than speculation and polemic in support of a preconceived belief."

The report of Luton's Teaching Quality and Enhancement Committee (May 24th 2004) looks terribly official, with at least three "quality assurance" people in attendance. But the minutes show that they discussed almost everything about the course apart from the one thing that really matters, the truth of what was being taught. The accreditation was granted. It's true that the [QAA criticised Luton](#) for this, but only because they failed to tick a box, not because of the content of the course.

The University of Central Lancashire 's justification for its BSc in Homeopathic Medicine consists of 49 pages of what the late, great [Ted Wragg](#) might have called "world-class meaningless bollocks". All the buzzwords are there "multi-disciplinary delivery", "formative and summative assessment", log books and schedules. But *not a single word* about the fact that the course is devoted to a [totally discredited](#) early 19th century view of medicine. Not a single word about truth and falsehood. Has it become politically incorrect to ask questions like that? The box-ticking mentality is just another manifestation of the endarkenment thought. If you tick a box to say that you

are fully-qualified at [laying-on-of-hands](#), that is good enough You have done the course, and it is irrelevant whether the course teaches rubbish.

These examples, and many like them, result, I believe from the bureaucratisation and corporatisation of science and education. Power has gradually ebbed away from the people who do the research and teaching, and become centralised in the hands of people who do neither.

The sad thing is that the intentions are good. Taxpayers have every right to expect that their money is well spent, and students have every right to expect that a university will teach them well. How, then, have we ended up with attempts to deliver these things that [do more harm than good](#)?

One reason is that the bureaucrats who impose these schemes have [no interest in data](#). They don't do randomised tests, or even run pilot schemes, on their educational or management theories because, like an old-fashioned clinician, they just know they are right. Enormous harm has been done to science by valuing quantity over quality, short-termism over originality and, at the extremes, fraud over honesty. Spoofs about the pretentiousness and dishonesty of some science, like that published in [The New York Times](#) last year, are too close to the truth to be very funny now.

Science, left to itself, and run by scientists, has created much of the world we live in. It has self-correcting mechanisms built in, so that mistakes, and the occasional bit of fraud, are soon eliminated. [Corporatisation](#) has meant that, increasingly, you are not responsible to your conscience, just to your line manager. The result of this, I fear, is a decrease in honesty, and in the long run inevitably a decrease in quality and originality too.

If all we had to worry about was a few potty homeopaths and astrologers, it might be better to shrug, and get on with some real science. But now the endarkenment extends to parliament, universities and schools, it is far too dangerous to ignore.