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RAYMOND TALLIS TO RECEIVE 2007 AWARD

PROFESSOR RAYMOND TALLIS is not only one of Britain's leading experts in gerontology, he is also a distinguished literary critic, poet and philosopher. He will receive the 2007 HealthWatch Award at the AGM this month. With more than 70 scientific papers to his name, he has also published fiction, three volumes of poetry, and over a dozen books on the philosophy of mind, philosophical anthropology, literary theory, the nature of art and cultural criticism.

In March 2006, Professor Tallis became a full-time writer, though he remains visiting professor at St George's Hospital Medical School, University of London. On BBC R4's "Desert Island Discs" recently he described his specialism in the care of elderly patients as an aspect of "unpacking the miracle of everyday life".

The award will take place at this year's HealthWatch Annual Open Meeting and AGM. Professor Tallis will speak on "Anecdotes, data and the curse of the media case study". The meeting is free and open to all and begins at 6.30pm on Wednesday 18th October 2006 at The Medical Society of London, 11 Chandos

Street, Cavendish Square, London W1M 0EB (nearest Underground: Oxford Circus). The evening will end with optional buffet dinner with wine.

Those wishing to stay for dinner must book in advance: please mail your cheque for £30.00 per diner (made out to HealthWatch) to Kenneth Bodman, 8 Eagle Close, Amersham, Bucks HP6 6TD enclosing a stamped addressed envelope and a separate note of your name, address, and the number of vegetarian meals required, to arrive no later than 8th October; or telephone Mr Bodman on 01494 722 450.

Holford professorship "not nutrition-related"

THERE HAS been much online discussion recently prompted by the news that TV nutrition pundit Patrick Holford has been conferred the title of Visiting Professor at the University of Teesside¹. However HealthWatch's investigations have confirmed that the appointment is not related to nutrition but to psychology. Patrick Holford has a BSc in experimental psychology from the University of York which he attended in the 1970's. He also holds an honorary diploma in nutritional therapy from the Institute of Optimum Nutrition².

Responding to an enquiry from HealthWatch vice-chairman Professor John Garrow, Professor Graham Henderson, Vice-Chancellor and Chief Executive of the University of Teesside, stressed that the proposal to confer the title of Visiting Professor upon Mr Holford came from their School of Social Sciences and Law, not their School of Health and Social Care and, he said, "was not in any way linked to the University's work in the field of nutrition." It was not his understanding that Mr Holford would have any involvement at all in this aspect of the University's research activity, and his research activities would be solely linked to the work in Psychology within the School of Social Sciences & Law. "Further,"

he added, "the exact title that Mr Holford may be permitted to use has yet to be agreed with the University." Professor Henderson also pointed out that, "the University has well established procedures for making such conferment decisions, based upon a combination of a personal CV, a citation from the nominating School and a number of both personal and independent references."

References

1. David Colquhoun's Improbable Science Page can be found at: <http://dscience.net/?p=39>
2. View Patrick Holford's profile on his website: http://www.patrickholford.com/content.asp?id_Content=1279

Dangers of spinal manipulation in new report

TO ANYONE considering having chiropractic treatment, HealthWatch President Nick Ross recommends browsing a paper that Edzard Ernst recently published in the *Journal of the Royal Society of Medicine*. Ernst, who is professor of complementary medicine research at the Peninsula College of Medicine and Dentistry, reviewed papers and case reports on the subject published since 2001 and concluded that spinal manipulation can be dangerous. He found that mild adverse effects such as increased pain, headache and tiredness occurred in 30-61% of patients, and in rare cases serious damage was reported, usually tearing of the ver-

tebral artery because of over-stretching, which can lead to thrombosis or embolism. Adverse events were more likely to be linked with chiropractic than with other treatments, probably because chiropractors use spinal manipulation the most frequently. "The conclusion," says Ross, "appears to be that the routine use of spinal manipulation by physicians, physiotherapists and osteopaths should be reconsidered, and in the interests of public safety chiropractors should get another job."

Reference

Ernst E. *JRSM* 2007; **100**: 330-338.

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BBC CAM programme: complaints upheld

THE BBC's Board of Trustees have upheld two complaints made by science writer Simon Singh against the corporation's 3-part series on Alternative Medicine, transmitted in February last year (<http://www.open2.net/alternativemedicine/>).

The series, which claimed to examine the evidence base for various alternative remedies, has drawn criticism for what many experts believe was sensationalised coverage of a number of alternative treatments. The example which attracted most comment was the filming of open heart surgery in which, it was claimed, acupuncture was used in place of a general anaesthetic. Critics later complained that the narrative had exaggerated the value of the acupuncture and underplayed the role of sedatives and powerful local anaesthetics used in the operation (See *HealthWatch Newsletter* issue 62, July 2006).

Singh's initial complaints, made direct to the BBC complaints department, were rejected. But his subsequent appeal to the highest level (Board of Trustees) was successful this summer.

The BBC responded to three serious criticisms. First, they agreed that the acupuncture open heart surgery sequence, "could have misled the audience". Second, the BBC agreed that their attempts to discredit Singh's criticism of the series, "was a breach of trust with the audience" because the BBC had not disclosed its role in organising critical letters. However the BBC did not uphold a third com-

plaint, that a brain imaging acupuncture experiment was portrayed in a misleading manner, because the BBC felt that, "the statements made by the scientists were a true reflection of their views and an accurate presentation of the experiment". This is despite the fact that, shortly after the broadcast, one of the leading scientists who had been filmed in this particular sequence was reported to have called the coverage, "inappropriately sensationalized".

"I think it has been worth the time and effort," wrote Singh in an e-mail to colleagues, "because I know that the articles and complaints were discussed by several people within the BBC, from programme-makers to senior managers."

Read the full complaint and findings at:

http://www.bbc.co.uk/bbctrust/assets/files/pdf/appeals/esc_bulletins/apr2007.pdf

Complaints about bad science on TV can be made through the BBC website <http://www.bbc.co.uk/complaints/> or, if it is not a BBC programme, to OFCOM <http://www.ofcom.org.uk/complain/>

Alzheimer's Society alliance with drug makers criticized

PROFESSOR Iain Chalmers has spoken out against the Alzheimer's Society's alliance with drug makers after the group brought the first legal challenge to judgements reached by the National Institute for Health and Clinical Excellence (NICE), the body that recommends which drugs are available on the NHS in England and Wales.

On 10 August, the High Court ruled against the alliance and upheld NICE's decision to limit treatments for Alzheimer's disease. "NICE is an independent body established to tackle the difficult—some would say near impossible—but essential task of trying to judge how the resources of the NHS can be used effectively and equitably, Chalmers wrote in the *BMJ* recently. "This process is bound to result in 'winners' and 'losers,' but those like the Alzheimer's Society that now regard themselves as losers must make it clearer whether they support the principles upon which

NICE was established, says Chalmers, who is co-ordinator of the database of uncertainties about the effects of treatment at the James Lind Alliance. He is calling for the Alzheimer's Society to declare clearly on its website the sources and amounts of support it receives for its work and, having challenged NICE's judgements, to make clear what alternative distribution of limited resources it regards as more appropriate, and why.

BMJ 24 August 2007

View on: <http://press.psprings.co.uk/bmj/august/pv400.pdf>

news in brief

THE TIMES Higher Education Supplement reports a 31.5% increase in applications for university courses in complementary medicine. "Compare this," says David Colquhoun, professor of pharmacology at University College London, "with 19 per cent fall in applications for places on anatomy, physiology and pathology courses, and a relatively low 6 per cent rise in applications for pharmacology, toxicology and pharmacy." Celia Bell, head of Middlesex University's department of natural sciences, defended the trend: "There are now millions of people seeking complementary medicine treatments, and we have to ensure that the practitioners are safe and competent and properly trained."

Times Higher Education Supplement, 27 July 2007. Article accessible online to subscribers only, but read comments on <http://www.dscience.net/improbable.html>

THE BRITISH Advertising Standards Authority (ASA) has upheld a complaint against the Body Detox Clinic, of Newcastle-upon-Tyne, and ordered the clinic to stop claiming that its colonic irrigation and "detoxification" programmes can help people with a list of conditions including haemorrhoids, irritable bowel syndrome, bad breath, psoriasis, acne, joint pain and dandruff. The clinic attempted to justify its claims by citing the writings of

Bernard Jensen (a deceased American chiropractor noted for his promotion of iridology) and Michael Gershon, another American who, it is said, had postulated that the intestine contains a "second brain". However, the ASA concluded that, except possibly for relief of occasional constipation, the clinic had, "provided only anecdotal evidence...and had not been able to support those claims with robust clinical evidence." Read the report on Dr Stephen Barratt MD's Casewatch website at:

http://www.casewatch.org/foreign/asa/body_detox.shtml

HINDU PRIESTS in an impoverished state in India are blessing children with polio vaccine drops instead of holy water to help eradicate polio, reports the *India Tribune*. The priests, who call the drops "god's blessings," have been trained by Indian health officials to administer the polio drops to immunize children. More than 600 cases of polio were reported across India last year. Officials called in the temple priests, who residents regard with great reverence, after local press campaigns had failed in the face of anti-vaccination myths, notably that the drops cause impotence.

India Tribune, 20 April 2007

<http://www.tribuneindia.com/2007/20070421/nation.htm#9>

HRT under fire ... again

THE LATEST accusation against hormone replacement therapy is that it causes ovarian cancer. Headlines such as, “A thousand women killed by HRT” have been appearing in the press over the past three months. An extreme example of the press coverage is an article by Dr Margaret Cook, a retired haematologist, which appeared in the *Daily Telegraph* on 20 April¹.

She wrote of the “HRT cartel”, meaning a conspiracy between male doctors and the pharmaceutical industry to mass medicate women for profit, and claimed that by allowing themselves to be “marketing fodder” women are responsible for thousands of deaths caused by HRT.

What led to this latest questionmark over HRT is no more than an editorial aberration in a paper published in the *Lancet* in May². Professor Valerie Beral and colleagues from the CRC epidemiology department in Oxford examined the incidence of ovarian cancer in the Million Women Study, an observational study of nearly one million post-menopausal women who had not had a previous cancer or a bilateral oophorectomy, and had attended for breast screening. They were followed for 5 years for incidence of ovarian cancer and 7 years for death. During follow-up 2273 cases of ovarian cancer and 1591 deaths from the disease were recorded. Amongst 287,143 current users of HRT the numbers were 740 cases and 497 deaths. The crude figures indicate only 51 more cases and 16 more deaths than expected in the current users, which could easily have occurred by chance. Past users had the same incidence as non-users. However, using more complex statistical methods adjusting for a number of factors, the authors produced a more significant correlation between current HRT use and ovarian cancer. The relative risks for incidence and death from the disease between current users and never users were calculated to be 1.20 (95% confidence limits 1.09–1.23) and 1.23 (1.09–1.38) respectively. The standardised incidence rates for ovarian cancer in current and non-users of HRT, were 2.6 (2.4–2.9) and 2.2 (2.1–2.3) per thousand respectively, which would indicate that there was one extra ovarian cancer in 2,500 current users, and one extra death from the disease in 3,300.

“There may be confounding factors ... some women could have been prescribed HRT for menopause-type symptoms that were actually caused by incipient ovarian carcinoma, something which I have personally observed in one case.”

The authors then extrapolated these figures to all women who have taken HRT in the UK since 1991. They calculated that if the same rates applied to the population at large, which they may or may not, there would have been 1300 additional cases and 1000 additional deaths from ovarian cancer in women who have used HRT over this period.

However this was an observational study, not a prospective randomised trial. In an observational study correlation does not necessarily indicate causation, a fact most doctors were taught in medical school, but which some seem to have forgotten, and which is unknown to many journalists. There may be confounding factors: one possibility is that some women could have been prescribed HRT for menopausal-type symptoms that were actually caused by incipient ovarian carcinoma, something which I have personally observed in one case. Many critical medical scientists would be unimpressed by a relative risk of 1.2 in such a study, whatever the significance level. The authors of the paper demonstrate that they are well aware of these limitations, because in the body of the paper the following provisos appear: “If the differences between never users and current users are due to HRT...” and, “If the association is causal...”. Unfortunately, the last line of the summary carries the bald statement, “Since 1991, use of HRT has resulted in some 1300

additional ovarian cancers and 1000 additional deaths from the malignancy in the UK”. This stark conclusion is not justified by the data presented, a fact that escaped the notice of the referees and editor, but it is what journalists picked up and conveyed in their sensational headlines.

So is HRT lethal? The evidence so far from prospective randomised clinical trials suggests that it is not, provided it is prescribed appropriately. The largest randomised trial is the Women’s Health Initiative Study in the United States, in which women were randomly allocated to an oestrogen/progestin combination or placebo³. This study caused consternation and was closed prematurely because of a small increase in strokes, coronary heart disease, and breast cancer in the group randomised to HRT. It resulted in thousands of women stopping taking HRT abruptly, in some cases with adverse consequences.

HOWEVER, it failed to demonstrate any difference in deaths or in the total numbers of cancers between the two groups. An increase in breast cancer, mainly non-fatal, was balanced by a reduction in other cancers, especially colo-rectal cancer. A major flaw in this trial was the inclusion of women in their sixties and seventies, who are not usually prescribed HRT for relief of symptoms. Accordingly the data from the trial were re-examined to take age into account⁴. It was found that there was a trend for both total mortality and coronary heart disease to be reduced in the 50–59 age group taking HRT, while the opposite was the case for the 60–69 and 70–79 age groups. Meta-analysis of all randomised trials confirms this trend; it has actually shown a 39% reduction in mortality in women under the age of 60 taking HRT⁵.

HRT is therefore best avoided by older women, but there is no evidence that taking it for a few years around the time of the menopause exposes a woman to an increased risk of premature death, in fact rather the reverse. If the association with ovarian cancer is indeed causal, the risk is very small and counterbalanced by potential benefits. HRT can considerably improve the quality of life of many women at this time of their lives, and has an additional beneficial effect on osteoporosis thereby reducing the risk of hip fractures. Women need not be deterred from taking it by alarmist publicity. The claim that it is being promoted by male doctors and the pharmaceutical industry in the interests of commerce is specious. Perhaps there is actually some female prejudice against it, and there could be a clue to this in Dr Cook’s article: in the midst of her vituperation she writes, “A feisty modern woman who wants to extend her sex life shrugs and declares it worth the risk”.

Michael Henk

Consultant Clinical Oncologist (retired)

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1. HRT: kill or cure? Cook, M. *The Daily Telegraph*; 20 April 2007. (Article no longer available online).
2. Beral V. Ovarian cancer and hormone replacement therapy in the Million Women Study. *Lancet* 2007; **369**: 1703–10.
3. Writing group for the Women’s Health Initiative investigators. Risks and benefits of estrogen plus progestin in healthy postmenopausal women. *JAMA* 2002; **288**: 321–3.
4. Rossouw JE *et al.* Postmenopausal hormone therapy and risk of cardiovascular disease by age and years since menopause. *JAMA* 2007; **297**: 1465–77.
5. Salpeter SR *et al.* Mortality associated with hormone replacement therapy in younger and older women. *J Gen Intern Med* 2004; **19**: 791–804.

THE POSSIBILITY OF KNOWLEDGE IN A POST-MODERN WORLD



A COUPLE OF YEARS ago I attended an evening course at the Tate Modern about the philosophy of post-modern Art, writes Dr James May. One of the works of art we looked at was a cabinet made to look like a Victorian museum cabinet, with a display case on the upper storey, and tray drawers for smaller items below. The items displayed were beach-combed from the Thames; bits of old pottery, electrical equipment, any old rubbish discarded over the last century or so.

They were categorised according to a variety of different seemingly arbitrary criteria. For example; things that had round ends, or sharp bits, or a greenish hue. Thus you could have a deflated football in the same category as a broken round bottomed bottle. The point was to try to demonstrate that the confident Victorian approach to knowledge was a human construction which was in fact arbitrary, and that all our knowledge is like that.

Over the last two hundred years there has been a constant theme of 'modernist' scientific thought which believes that scientific progress is a logical, linear progression of accumulating facts which are objectively verifiable. A stream of twentieth century discoveries (or revolutions) such as relativity, quantum mechanics and chaos theory have largely undermined this confidence, along with philosophical challenges from the likes of Michael Polyani and Thomas Kuhn. More radical post-modern philosophers would then conclude that science was not more secure than any other traditional claims to knowledge. It too was a construction, often used by those in power to malign ends.

Back to the Tate: After a couple of hours standing around different artworks and discussing them, we would retire to the bar for a glass of wine and further chat. Discussing my work as a GP one lady asked me, "who is an authority for you whom you can trust?" I then thought of Richard Smith's lecture at the Healthwatch AGM three years ago (see *HealthWatch Newsletter* issue 56, January 2005) arguing that medical journals were in part an extension of the advertising arm of the drug industry. Good question I thought. We then discussed whether or not it is possible to know anything at all, with me trying to establish basic realities which we could both agree on, like the time the course started—it would have helped the discussion considerably had I not been late!

What post-modernism has instead of knowledge are interpretive communities, competing to have their voices heard in a political world. Truth is no longer a concern. I remember a conversation with an ex-girlfriend's mother during the OJ Simpson trial. She was a socialist and a feminist who said that the problem with the trial was that there was too much about race issues, and not enough about gender issues. I said that I thought there was too much about politics and not enough about justice, but then I really didn't understand post-modernism very well at the time.

IT IS TEMPTING to view the post-modern mind as gullible and naïve, and to some extent that is true. But it is true for reasons which seem paradoxical. The reason that post-moderns seem able to accept anything as 'true' is that in fact they accept nothing as true. In a vacuum of knowledge achieved by radical scepticism or radical doubt, then it really doesn't matter what you believe to be true, it's just your individual interpretation or construction anyway.

In this environment an organisation such as Healthwatch which intends to inform people about genuine 'knowledge' of a 'real world' has a significant problem. The more confidently one seems to assert truth claims, the more the post-modern reflex is inclined to suspicion about an out-moded and naïvely optimistic or rather arrogant modernism. A post-modernist can easily out-scepticise a 'sceptic'.

So what to do? Here are a few tentative suggestions for a way out. The lady in the bar gave me a false antithesis: Either absolute human authority exists with exhaustively true omniscient knowledge, or alternatively such knowledge is impossible. The common ground we have, however, is that human beings are finite, and human knowledge is therefore also finite. In addition to being finite with respect to our powers of reason, we are also integrated beings who have emotional and moral aspects. It is important, for example, that when reading a scientific paper one should always be cognisant of the author's competing interests which should have been declared—our affective nature influences our epistemology. Our *Weltanschauung* or world-view does too. We cannot avoid being part of an interpretive community. If I speak in English to a non-English speaking audience then everything I say might be true, but it will make no sense to the listeners.

"A post-modernist can easily out-scepticise a 'sceptic'."

Where does this get us? Well, firstly, we should acknowledge that no truth which we can articulate can ever be articulated in a culture-transcending way—but that does not mean that the truth which has been articulated does not transcend culture. I may have a superficial and limited understanding of an aspect of reality which I express in a particular cultural context, but the reality itself is not bound by these considerations, and it is possible to cross cultural bridges to express what is known about this reality in a way that communicates truth about it.

Secondly, rather than the antithesis of either knowing or not knowing something, the normal experience we have of studying a subject is of increasing knowledge, often where the more we know the more we realise that there is to know. Rather than a linear accumulation of facts, it is better to see knowledge as an asymptotic curve approaching the axis of knowledge with time and study, but never finally reaching it.

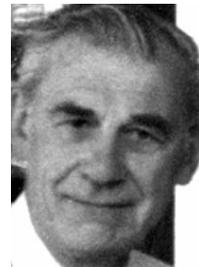
Both of these responses are expressed in what is called 'critical realism'. This recognises that there is a knowable reality (hence 'realism'), but that as finite beings with affective as well as rational natures, we are constantly aware that our 'knowledge' is not final (hence 'critical'). This has been called a 'humble epistemology', which would seem a good way of avoiding the criticism of being either naïve or arrogant and yet still holding to the belief that there is a real world which can be known.

Applying critical realism in practice may not be so easy. The challenge of post-modernism in popular culture is immense, but it would be a mistake not to recognise where post-modernism has justifiably critiqued what we should admit is a failed modernist epistemology.

James May
General Practitioner
Kennington, London

POSITIVE RESULTS FROM TRIALS OF HOMEOPATHY FOUND...CAN IT BE TRUE?

Professor John Garrow continues our occasional series, "Can it be true?" (coined as "CIBeT?") in which he attempts to hunt down the truth behind some incredible pronouncements on health treatments



IN THE LAST issue of this Newsletter I wondered if the statement in italics below could be true. It was made by Dr Peter Fisher, Clinical Director of London's Royal Homeopathic Hospital, about trials of the efficacy of homeopathy (BBC Radio 4 on 23rd May). "We have recently surveyed all the placebo-controlled trials with WHO and found about 120 trials. About 50% were clearly positive, a very small number were negative, and quite a few had equivocal results".

I doubted the statement for two reasons. Firstly, that many respected analysts have reviewed controlled trials of homeopathy, and none have come to a conclusion so favourable to homeopathy. And, secondly, both Dr Fisher and WHO have an interest in homeopathy being shown to be effective. Dr Fisher is the Royal Homeopath, and WHO is always on the lookout for inexpensive therapies with which to treat disease in poor countries.

I did not mention these considerations in the previous issue, but concluded the piece with the words, "I hope by the time the next issue of the *HealthWatch Newsletter* is published the editor will find space for a brief account of what the WHO thinks about the efficacy of homeopathy."

I assumed that the draft from which Dr Fisher was quoting in May 2007 would be published by September 2007, so I could by now tell readers the views of WHO. But I am astonished to learn that the report is still wrapped in secrecy. I have personal experience of the procedures involved in producing Governmental and International reports. It may take the editors months to resolve differences among the experts whom they consult, and quite normal for drafts to be circulated in confidence to these experts in order to obtain consensus. I was therefore not surprised that the response

from experts has been "Sorry, it is still in confidence, so I cannot reveal its contents to you." The charitable explanation would be that the debate between experts is still unresolved, but it seems that this is too charitable. I understand from one contributor that there has been no response whatsoever from the Coordinator (Dr Xiaorui Zhang) to comments and criticisms sent to her about the draft dated December 2006.

IF CORRECT, this is unfortunate. There cannot be an internal debate between contributors if contributors' comments on the draft are neither acknowledged nor answered. A less charitable explanation for the delay in publication is that so many flaws have been found in the draft from which Dr Fisher was quoting they cannot reach a consensus worth publishing.

It is generally accepted among scientists that unpublished evidence is not evidence. Until I am shown the review, published and endorsed by WHO as proving the efficacy of homeopathy, I am entitled to assume that Dr Fisher's quotations about its conclusions are not true.

John Garrow

Emeritus Professor of Human Nutrition, University of London



...and a remedy for menopausal hot flushes: salt

SOME years ago I needed some ammonium chloride and the bottle in my laboratory was empty, so I went next door to borrow some from a colleague (the chemist's equivalent of "borrowing" a cup of sugar).

Being in a silly mood I asked him whether he had any sal volatile, the old name for ammonium chloride. He said no, but offered me spirits of hartshorn and muriatic acid¹ to make my own. The students in the lab were astonished to hear this apparent nonsense from two senior academics.

This knowledge of archaic chemistry has allowed me to interpret a homeopathic remedy for women suffering from menopausal hot flushes who are "depressed but keep it well hidden"—natrum muriaticum. Natrum (correctly natrium) is sodium; muriaticum is chloride, so the remedy seems to be sodium chloride, otherwise known as common table salt. At a time when the UK Food Standards Agency has a major publicity campaign under way to persuade people to reduce their salt intake it hardly seems desirable

to suggest it as a remedy for anything, but presumably a homeopathic dose of salt does neither harm nor good.

David A Bender

*Senior Lecturer in Biochemistry
University College London*

References

1. Spirits of hartshorn is the old name for ammonia; it was originally prepared by dry distillation from deer antlers. Muriatic acid is hydrochloric acid; a Google search suggests that the name is still used when it is sold for cleaning masonry and etching concrete.
2. *Journal of Holistic Healthcare* 2007; 4:3 33-8.

Are clinical trials meeting patients' needs?



Keith Isaacson was enlightened and impressed at a one-day symposium organised jointly by the James Lind Alliance and The Lancet. "How can clinical trialists serve the needs of clinicians and patients more effectively?" was held at the Royal Society of Medicine, London, on 25 June 2007

JAMES LIND was a Naval Surgeon at a time when sailors were dying of scurvy. The Admiralty's official treatment was to give the sailors vinegar, but the College of Physicians were recommending dilute sulphuric acid. James Lind divided his crew into groups and carried out what must have been one of the first controlled clinical trials. He discovered that the sailors who were treated with oranges and lemons recovered from scurvy more quickly than sailors who were given the standard treatment for that time.

It is fitting, then, that Lind has given his name to an Alliance which has been set up to promote partnerships between patients and clinicians so that patients can better understand the advantages and disadvantages of different forms of treatment.

The morning session was chaired by Professor Iain Chalmers who is co-ordinating a database on "The uncertainty of treatment". The first speaker was Dr. David Tovey, Editorial Director of the *British Medical Journal's* publication "Clinical Evidence and Best Treatment". He explained that research projects are often carried out on populations that are totally different to those receiving the treatment. As an example, most of the research into HIV infections has been undertaken in the West where the majority of the patients are homosexual or drug users. The outcome of this research is being used to treat patients in Africa where most patients are female and heterosexual. He was also concerned that some research projects are carried out even after there has been conclusive evidence of a successful drug. As a result patients are put into random groups, some given placebo, even when there is a known satisfactory treatment.

"...most trials are carried out on patients in secondary care. These are in a high risk group by comparison with the low risk patients seen in general practice."

An outstanding speaker that morning was Professor Stephen Holgate from Southampton University who researches in asthma and allergic diseases. Talking about prospective randomised controlled trials—the "gold standard" as far as evidence is concerned—he said that for many pharmaceutical products, the selection criteria can be so stringent it is almost impossible to get sufficient numbers of patients into the trial. As a result those who *are* entered do not represent the population at large. For example, although 20% of asthma patients smoke, smokers are almost always excluded from asthma studies. The standard treatment for the symptoms of asthma is in fact not effective for asthmatics who are smokers. It has recently been discovered that there is a better medication for asthmatics who smoke¹.

Holgate was concerned by the use of meta-analysis, in which the results of large numbers of trials are combined. The outcome can be distorted if data referring to different age groups are mixed together. An example is the very safe anti-asthmatic drug called sodium cromoglycate, which has been removed from the pharmacopoeia as a result of the Cochrane review of a large number of papers. Yet recent work has demonstrated that it remains a very effective and safe drug and should be available for certain age groups².

Other speakers called for new projects to be notified in advance and go on a database to avoid unnecessary repetition. Research workers should be able to put forward their protocols at the commencement of a project so that they can be open for comment before embarking on a major project. Before funding is approved, they must check the previous work that has been done in the field to show their project could be beneficial.

And after the research is done, how to treat the findings? Concern was expressed about the outcome of research which produces a neg-

ative result. There is a tendency not to publish the results, but even negative results could be useful and should be in the public domain. Professor Altman, statistician in charge of the Medical Statistics at the University of Oxford, made the case for a data bank to hold all the data from studies to be archived, so that other research workers can retrospectively re-visit and re-analyse the data.

THE AFTERNOON session, chaired by Richard Horton, editor of *The Lancet*, began with a talk from Dr Margaret McCartney—a general medical practitioner from Glasgow who writes an excellent column in the *Weekend Financial Times*. She explained the difficulties of presenting research information to her patients in the light of exaggerated press reports about certain drugs. She gave an example of Herceptin, which received considerable coverage because of its high prescribing costs. She told how a hospital consultant suffering from breast cancer looked closely at the research evidence and realised that the press claims were exaggerated. She calculated that she would only get a 4–5% benefit herself if she had the treatment. When weighing the risks of treatment against the benefit, she decided to not have Herceptin and stated this in a letter to the *BMJ*.

Professor Glasziou, Director of the Centre for Evidence Based Medicine at the University of Oxford is also a part time general practitioner. He made the point that while all trials look at the average population, few of our patients are "average". Furthermore, most trials are carried out on patients in secondary care. These are in a high risk group by comparison with the low risk patients he sees in general practice. He described how, having carried out a study himself on the use of antibiotics in otitis media in children, he came to the conclusion that in unilateral cases of otitis media antibiotics were not needed. He had barely put the finishing touch to the paper at a weekend when his own child developed unilateral otitis media. He took the courage of his convictions and resisted giving antibiotics, restricting his treatment to analgesics—it worked.

The day ended with some lively questions. The one question I refrained from asking was how a registration fee of £25 could pay for such an excellent course and lunch in the superb surroundings of the Royal Society of Medicine—surely it couldn't have been subsidised by a drug company!

Keith Isaacson
Senior Consultant Orthodontist
The North Hampshire Hospital, Basingstoke

Further information

Meeting papers in pdf form can be found on www.lindalliance.org

Stephen Holgate has been awarded BMA Medical Book of the Year 2007 for Allergy, 3rd edition (Mosby Elsevier 2006, ISBN 0323032273 £88.99) by Stephen T. Holgate, Martin K. Church and Lawrence M. Lichtenstein.

Read articles by Dr Margaret McCartney on www.ft.com/mccartney

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Evidence is forgotten as Dawkins tackles unreason



Neville Goodman's reviews of the two-part Channel 4 series "The Enemies of Reason" appeared originally in his regular column for the *British Journal of Hospital Medicine* (www.bjhm.co.uk). Here his reaction to the series has been adapted for the HealthWatch Newsletter and appears with kind permission from the BJHM.

IT WAS NO SURPRISE that I was completely on Richard Dawkins's side as he went after water dowzers, astrologers, and a variety of other psychic peddlers in the first programme of Channel 4's "The Enemies of Reason" (13 August). But I do agree with the various television critics following that programme. To quote *The Times*' Andrew Billen, "If Oxford University's Professor for the Public Understanding of Science could not humiliate this lot, there would be something wrong. There wasn't and he did."

Billen's excellent suggestion was that Dawkins should be making a 13-part series on natural selection rather than gunning for intellectual inferiors caught in a media spotlight. I mean, is it worth anybody's time at all to discuss the spiritual "rockness" of a rock?

Disappointingly, there was little of the evidence on which Dawkins laid such emphasis. Too much was conversational interchange, in which the challenged psychics and mumbo-jumblers made all too easy excuses, which were variations on, "science can't explain everything". Neil Spencer, the *Observer*'s astrologer (I find it difficult to write that phrase without gagging), simply copped out with, "It's a deep dark mystery". It's far less than that; it is sheer nonsense that the position of Saturn or any other planet in the sky can have any effect at all on a baby emerging from its mother's womb.

"Dawkins was told in no uncertain terms that he could scarcely expect to have angels on his shoulders if he hadn't invited any to be there."

The best section of this programme was a randomised double blind trial of water dowsing at a psychics fair. Dowzers were asked to spot which of six boxes contained a bottle of water, and did no better than chance. Some appeared quite shocked that they had not succeeded, but all those interviewed afterwards soon found reasons for why the experiment was invalid. We should have had more of this, although I don't suppose the dowzers would have changed their minds.

As Dawkins said, a large source of superstition is the human failure, "to accept that things just happen": how readily can an intelligent, affluent, middle class professor understand how somebody less well endowed views the world? It doesn't mean we should think those views are, citing postmodernism, correct; but it perhaps gives us the answer that it will take more than just a few television programmes to set things right.

Dawkins' book 'The God Delusion' is currently the fourth best selling book on Amazon, but overall books on astrology, spirituality and the like outsell science books by three to one. I couldn't find a review of "Enemies of reason" in the Daily Mail, but it did have a two-page extract from a book written by a blind psychic.

But there are far more important things to get upset about than belief in that sort of thing, such as much of complementary and alternative medicine, which was the subject of Dawkins' second programme, subtitled "The Irrational Health Service". I tuned in hoping for a real examination of evidence, rather than the previous programme's soundbite disagreements and Dawkins' slightly bemused expression as he watches people stroking aura fields. I was disappointed.

I was, however, quite taken by Elisis Livingstone. The deep "knowing" told her that modern man had gone astray because of

now having only two of the original 12 strands of DNA that we had when we were in Atlantis. She closed her eyes and wiggled her hands a bit. Thus Professor Richard Dawkins had the last triangle of DNA inserted into his genome. Come back in six months, she told Dawkins, and tell me how you've got on.

The thing is, Elisis Livingstone believes it. In the course of this programme Richard Dawkins had the soles of his feet slapped, slept on a bed while crystal energy was beamed at him, had some strange black instrument clicked on the back of his neck to unblock an energy channel, and was told in no uncertain terms that he could scarcely expect to have angels on his shoulders if he hadn't invited any to be there. Angels, incidentally, are—metaphorically—like teas: you can have fruit teas, or herb teas, or breakfast teas...are you following this?

Dawkins' thesis was that, far from being harmless nonsense that many believe makes them feel better, this is part of an implicit attack on scientific medicine, a war on reason. It uses scientific terms—energy, vibration, quantum theory—to dress its unfounded ideas in ironically respectable clothes. As in the first programme, Dawkins kept stressing the importance of evidence over anecdote, but also as in the first programme we just didn't get enough of the evidence.

Homeopathy took up the whole third quarter of the programme. The redoubtable Dr Peter Fisher ("I admit homeopathy has a plausibility problem"), director of the Royal Homeopathic Hospital (refurbished with lovely laid wooden floors at taxpayers' expense), not only parried Dawkins but to many probably got the best of it. Yes, I know that the *Lancet*'s meta-analysis of meta-analyses showed that the benefits of homeopathy are just less than the square root of -1, but that was lost in the background. Professor Dawkins sat in on three of Dr Fisher's consultations: who would not want an hour with the doctor? He was kind and he listened: if only the NHS could provide what he provides. He prescribed one of his patients a homeopathic preparation of salt.

NO ONE who takes homeopathic medicines will have had even the smallest seed of doubt sown. But I loved Dawkins' turn of phrase. Accepting that their remedies do not contain even one molecule of what is on the label, homeopaths "paddle further up the creek of pseudo-science" in invoking that water has memory.

Here there was a gaping hole in the programme. Before this idea was introduced, Fisher said, "We still don't understand the structure of water," and that was left as an unsupported statement. Don't we? The programme should have ditched the delightfully batty Elisis Livingstone, got its teeth into the structure of water, and tried to show Peter Fisher that he would be better using his considerable medical talents in the cause of rational medicine.

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Functional Foods: new position paper online

CHOLESTEROL-REDUCING YOGURTS, omega-3 enriched eggs and milk drinks containing bacterial culture are all examples of functional foods—foods that are altered in some way to provide a specific health benefit. The market is set to exceed £1.6million by 2010. But how valuable are they in health terms? David Bender, lecturer in nutritional biochemistry at University College London, and chairman of HealthWatch, examines the category in a newly-updated position paper that can be read in full on the HealthWatch website. Here follows a short excerpt.

Functional foods can be defined as foods that contain one or more added ingredients to provide a positive health benefit, over and above the normal functions of food to provide nutrients, satisfy physiological and psychological hunger and provide pleasure from eating. This definition excludes vitamins and minerals added to foods to replace losses in manufacture. For the purposes of this paper I will also exclude vitamins and minerals added to breakfast cereals, which were originally intended to provide the micronutrients that would have been obtained from a traditional cooked breakfast. Similarly I will exclude vitamins A and D added (by law in UK) to margarine to provide the vitamins that would have been obtained from butter.

The concept of functional foods was developed in Japan in the 1980s, with a formal definition of “foods for specified health use” (FOSHU) in 1991, accompanied by a regulatory system to approve the statements made on labels and in advertising, based on scientific evaluation of the evidence of efficacy and safety¹. At the turn of the century the European market for functional foods was some £830 million and at the time was predicted to increase to £1.6 billion by 2010²—this may well have been an underestimate.

As with so many areas, while there may be good evidence of potential benefits of some functional foods, and well-conducted trials show improvement in biomarkers and risk factors, as yet there is little evidence of improved health or increased lifespan in most cases.

Food fortification to prevent deficiency

When a micronutrient (vitamin or mineral) deficiency is widespread in a population, a common approach is to enrich or fortify a staple food. The problem here is that if enrichment is voluntary, so that consumers have a choice of whether to buy the fortified or unfortified product, it is likely that the most vulnerable groups of the population will not be reached. However, if enrichment is mandatory then political problems of freedom of choice arise. It is noteworthy that despite the excellent evidence that fluoride reduces dental decay very significantly, fluoridation of water supplies is not universal in Britain,

because of (unfounded) fears of “mass medication”.

Iodine and goitre prevention

The earliest example of food enrichment to meet a public health problem was the use of iodine to prevent goitre; in 1900 it was added to chocolate in Switzerland, as a way of meeting the iodine needs of children—the most vulnerable group. However, the most popular vehicle for iodine enrichment is table salt. In some countries iodized salt is required by law either throughout the country or in vulnerable regions; in others it is optionally available. In the Netherlands and Australia, by law, bread must be baked using iodized salt.

There is no doubt that iodization of salt is effective in preventing goitre (and the more serious problem of goitrous cretinism in infants born to iodine deficient mothers). Four years after the introduction of iodization in Guatemala in the early 1950s the prevalence of goitre had fallen from 38% to 5%. Similarly impressive reductions in the prevalence of iodine deficiency disease have been reported from other countries following iodization. There is, however, a problem with widespread iodization. Adults who have compensated for inadequate iodine deficiency by developing goitre (i.e. enlarging the thyroid gland so that it produces an adequate amount of thyroid hormone) are at risk of hyperthyroidism when their iodine intake increases.

Dr Bender goes on to consider subjects including folate fortification for protection against cardiovascular disease; plant stanol-enrichment in lowering cholesterol levels; and foods that claim to improve the balance of intestinal bacteria. Read the full paper on www.healthwatch-uk.org

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1. The assessment and testing of treatments, whether “orthodox” or “alternative”;
2. Consumer protection of all forms of health care, both by thorough testing of all products and procedures, and better regulation of all practitioners;
3. Better understanding by the public and the media that valid clinical trials are the best way of ensuring protection.

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