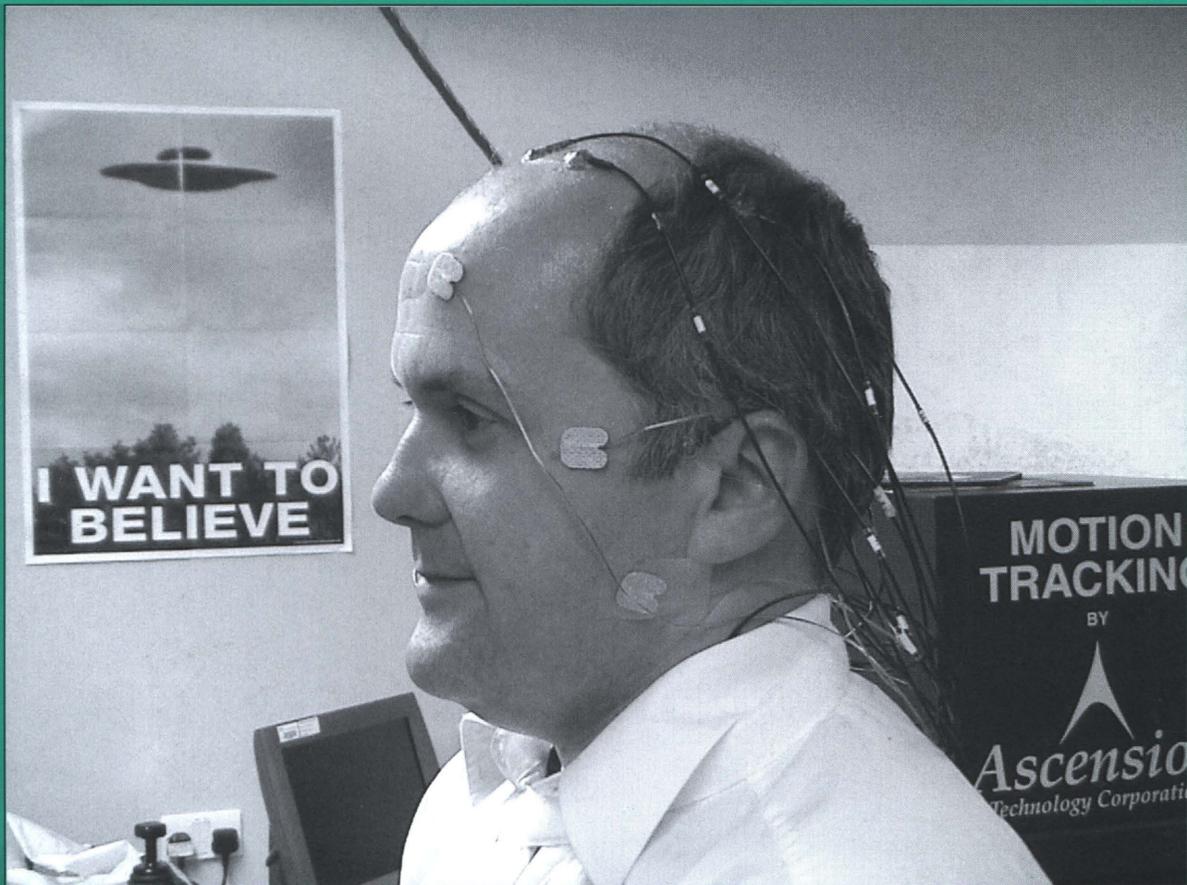


The **Skeptic**



God on the Brain

Also in this issue:

Requiem for Phyllis

John Diamond on Miracle Cures

Global Warming

Flying Saucers of the Third Reich

Plus: • News • Book reviews • Comment • Humour

Hilary Evans' Paranormal Picture Gallery



THE POWER OF IMAGINATION

After the collapse of the Paris Commune in 1871, poet Clovis Hugues is arrested for his part and imprisoned. At the far side of Paris, his friend Gaston Cremieux has also been arrested. Cremieux is condemned to death: at the moment of his execution, Hugues hears the sound of a gun volley from his writing-desk.

Well, any skeptic can make short work of that. Hugues knows his friend is in danger, and that he could be condemned; if so, a firing-squad is the likely form. His imagination does the rest. The fact that his hallucination takes place at the self-same moment is, of course, simple mathematical chance. Anyway, who checked the synchronicity? And even if someone claimed he did, should we believe him? Couldn't the whole story be a foaftale for credulous folk who think there might be such a thing as telepathy?

But however much we explain it in psychological terms, the incident bears witness to the creative power of the human imagination.

 Hilary Evans is co-proprietor of the Mary Evans Picture Library, 59 Tranquil Vale, London SE3 0BS.

the SKEPTIC : Volume 13 Numbers 3 & 4

ISSN 0959-5228

Published quarterly from
 PO Box 475, Manchester M60 2TH
 United Kingdom

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 Web : www.skeptic.org.uk
 AOL Keyword : skeptic

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Special thanks for internet services to
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Artwork and Printing by
 Starchaser Communications Ltd
 0161 339 5227

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Copy date for the next issue: 1 February.
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Skeptic in Chains

Wendy M Grossman

FIRST, a piece of news. *The Skeptic* is pleased to announce that as of mid-June we have an area on AOL where any AOL subscriber can drop by and chat with us online.

First of all, to clear up some confusions about magazines and subscriptions. This, like the last issue of 1999, is a double issue – which means we count it (and 1999's Vol 12, No. 3–4) as two issues for subscribers. The reasons for the horrible schedule this year are production snafus too awful to recount under which producing an issue became a bit like trying to pick up an elephant. We hope it will get better in what everyone can now agree is the new millennium, but with the malevolent force of every psychic in the UK beaming straight at us, who knows?

One other bit of confusion concerns phone numbers. Obviously we welcome correspondence from subscribers with questions or problems about their subscriptions, but unfortunately (as some of you will have discovered) the phone number published in the magazine and on the Web site leads only to the editor's office, where there is no copy of the subscription database. Please, if you have a problem about your subscription either email subs@skeptic.org.uk or write a letter to the PO Box.

One last administrative point: those of you who sponsored libraries last year, thanks a bunch! However, those subscriptions have now expired. If you would like to renew your libraries sponsorship or take one out, please send £10 (the special library rate) and the details of the library to the PO Box address.

As I write this, it's the second Saturday of the US election, the day on which the Florida Secretary of State, Katherine Harris, expected to certify the final vote count until the Florida Supreme Court blocked her from doing so.

Our friends at the Annals of Improbable Research sent out a note saluting Harris for taking the tedium out of mathematics. 'Many – far too many – schoolchildren agonise over the correctness of their work... Now comes an effective, simple solution. K. Harris was given charge of a large exam in her state (there were approximately six million examinees, and a corresponding number of exam graders). Confronted with requests that exam graders be allowed to check their work, Harris issued a firm, teacherly 'no.'

'If you have used a calculator, there is no need to check your work. Your answer, if you can give a good explanation for it, is correct. One must move on. Life

is too short to spend it agonising over whether one passed an examination.'

Until the Florida impasse, I had thought it was the UK government that, through the National Lottery, had done the most to undermine public understanding of statistics.

Similarly, what Florida has showed us is how hard it is to achieve real precision in counting election ballots. Leaving aside all the arguments over ballot design (paper, punch, lever, online), the debates over Harris's dual role as ultimate election overseer and campaigner for Dubya Shrub, and the snide cracks taken at elderly Palm Beach voters, what it boils down to is that this election was so close nationally that it was decided by what in a normal election would be statistical noise.

One point about this is, as *Discover* magazine pointed out a couple of years ago, that in fact the country benefited from the existence of the electoral college, the quaint tier of electors who actually determine the next president. The winning percentage for Dubya in Florida, based on the not—quite—complete count ten days after the election, showed a lead of 930 votes out of 5,820,688 counted, or 0.01597 percent. If you were building a six—foot bookcase, that would be an error of just over 1/100th of an inch. In a journey of 1,000 miles you'd be about 300 yards out. Without the electoral college to localise the dispute, we'd have had to go with the popular vote – a difference, nationally, of only 262,991, or a comparatively handsome margin of about .2559 percent of the votes cast. We could have been recounting for months...

Few machines work to such fine tolerances. In the Florida case, as so often, the backup was humans. Shrubya seemed to have a problem with this, arguing that we, the people, trustworthy when we're voting for him, are untrustworthy when it comes to counting ballots.

You may be wondering what all this has to do with the paranormal. Well, for one thing, the election was a marvellous chance to experience bad reasoning. If you believe, as mathematician John Allen Paulos does, that innumeracy is responsible for a lot of beliefs in the paranormal, it was a great exercise in statistics. Finally, it reminded us that science and democracy share a couple of very important characteristics: both are eternal, self—correcting processes requiring constant vigilance.

Hits and Misses



BSE is good for you

The concern about the growth in corporate, rather than public, funding for scientific and other academic research has always been that the paymasters would want results that bolstered their business prospects. In February, the Daily Telegraph reported on a survey from the Institute of Professionals, Managers and Specialists showing that one in three scientists in government quangos or newly privatised labs has been asked to adjust his conclusions to suit sponsors. Recently privatised labs include the Radio Chemical Centre (now Nycomed), Amersham Laboratories, and the Atomic Energy Authority (AEA Technology); next in line to have corporate funding introduced are the National Air Traffic Services and the Defence Evaluation and Research Agency.

It's hard to know why anyone would be surprised by this. Cynthia Crossen's 1996 book *Tainted Truth: the Manipulation of Fact in America* made a pretty good case that most of the time corporate funders get what they want out of research – and if they don't, they simply don't publish the results. In a pinch, good PR can make the worst results sound pretty; cf the other classic in this field, 1995's *Toxic Sludge is Good for You*, by John C. Strauber and Sheldon Rampton, which examines the workings of spin. Even if you haven't read these books – which we strongly recommend to any skeptic – we'd have thought the tobacco companies' shenanigans hiding decades of unflattering research studies, along with recent public health and safety crises such as BSE, would have been enough to convince anyone of the importance of impartiality and public funding for scientific research.

To try to force some accountability into the situation, the *British Medical Journal* now requires medical researchers to declare their source of funding and any competing interests they may have. According to the journal's editor, Richard Smith, quoted in the *Telegraph*, the reason for introducing the policy was reviewing papers on third-generation contraceptive pills. The corporately funded papers showed no risk of blood clots; the independent ones claimed there was such a risk. The *BMJ's* policy is a start. But only a start.

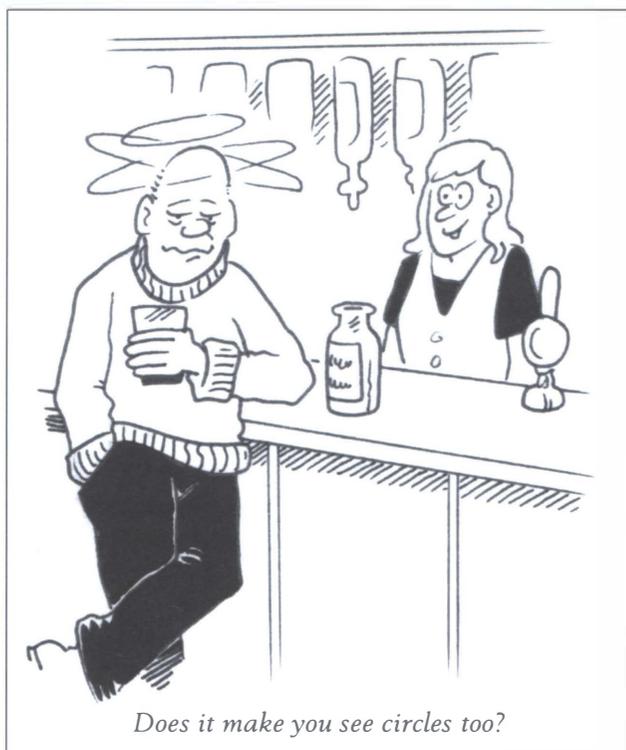
Stars proposing

Also in the self-serving prophecy department, astrologer Russell Grant warned Tony Blair at the beginning of the year that it was vital for him to court the gay vote (Grant's horoscopes pop up in many places on the Web, including a number of Web

sites such as 'Gay Britain'). Grant predicted that an election at the end of this year would be very favourable for Labour. Blair apparently paid no heed, so a week before the US election between the Shrub and Superman, we're hoping Grant had the right idea but the wrong country (a week after it, any favour to any party seems laughable). At any rate, we feel we can safely predict there will be no UK election in 2000.

Mystic beer

Fundingwise, we just never think of the right things. We're bright, we're up on all the latest paranormal claims, and yet here we are, year after year, racking our brains to make the odd extra £100 to help keep the magazine thriving, and what happens? Some smartass in California goes out and makes something dumb like Crop Circle Beer. Made only (it says here) from barley grown in fields with crop circles and kept painstakingly separate and shipped lovingly out to



California, the beer will not be sold in this country. You'll have to go to California. But when you get there and find it, 'The Truth's In Here.' A lot of other Californians have thought the same thing about much wackier products, so there's no reason to suppose this microbeer won't be an equally mysterious success. The alien in the flying saucer on the beer's otherwise empty Web site is smiling.

Do crop circles keep kosher?

As if that weren't enough news, crop circle wise, the Jewish Chronicle recently ran a lovely photograph of a 400 foot—long crop circle menorah (without candles, sadly) that appeared in a barley field in Barbury Castle, near Swindon. The newspaper notes that a full—scale kabbalistic tree of life appeared in a field of rape on the same site two years ago. The report includes no speculation regarding the colour, creed, national or interplanetary origin, or dietary restrictions of the formations' makers...

Beware of the wort

Herbal remedies have been much in the news this year – our clippings are filled with stories about herbal remedies for everything from backaches to infertility. The big herbal story of the year, however, is the remedy—for—depression de l'heure, St. John's Wort. (We know anecdotal evidence doesn't count for much, but at least one friend swears by the stuff. Or, rather, swore: several months after saying the herb had done wonders for his problems with depression, he seems to be even more depressed.) The wort has been the subject of several warnings that it could be dangerous when mixed with other drugs, particularly warfarin (anti—clotting), digoxin (heart conditions), anticonvulsants (epilepsy), theophylline (asthma and bronchitis), tryptans (migraines), cyclosporin, several anti—HIV drugs, and some anti—depressants (SSRIs), as well as the contraceptive pill. In addition, some studies suggest that its active ingredient, hypericin, can trigger cataracts in people who mix taking the wort with exposing themselves to bright light, and American doctors are warning users to stop taking the herb at least two or three weeks before an operation, as the remedy (along with ginkgo biloba, feverfew, and ginseng) may interact with anaesthetic drugs.

Because so many 'alternative therapies' are essentially placebos, it's easy to forget that herbalism has real effects and real consequences. Many orthodox pharmaceuticals are themselves derived from plants (aspirin, digitalis), so there is nothing questionable or surprising about the idea that plants and herbs can have drug—like effects. While we're not keen on the trend for everyone from aromatherapists to reflexologists to seek a veneer of respectability for their harmless beliefs through licensing schemes, in the case of herbalism it's clearly important to research interactions and side effects. If people are going to insist on taking these less—refined remedies that may contain powerful chemicals, we owe them essential safety information; too many of the claims for herbal remedies are hearsay, anecdotes, and manufacturer hype.



The power of magnets

One seemingly wacky remedy that has had some research, however, is magnotherapy – that is, the idea of treating lower back pain by wearing magnets as jewellery or placed against the body. A UK—based outfit selling wearable magnets charges £20 for narrow wristbands, £45 for magnet—carrying pouches, £150 for a magnet sleep system, and £49.95 for a pair of magnetic tendon boots for horses ('Why pay more for a quality product?' the site asks, presumably unconscious of what that sentence actually implies). Magnotherapy supporters make the usual rash of claims: this will fix everything from chronic fatigue and fibromyalgia to back pain and migraines. The idea is that magnets work to do all these things by boosting the oxygen—carrying capacity of blood (by attracting the iron?) as it passes through the magnetic field. Anyway, a pilot study conducted by the Veterans Medical Affairs Centre in Prescott, Arizona, found that magnotherapy has no effect on back pain. It was only a small study, but still, it's a start. Naturally, magnet folks want more tests, something we can't argue with, though we suspect they'd have been happy to accept the results had they been favourable. If you want to try out the efficacy of magnets yourself – after all, 50 million people worldwide! have tried them (if only on their refrigerators) and they're 'as non—invasive as acupuncture' – take our advice and buy them from the Science Museum. It's a lot cheaper, and at least you're supporting science.

Hi—tech mediaevalism

What the early prophets could have done with modern toys! The Italian illusionist Alfredo Barrago, earlier this year, convinced thousands of believers in Rome that a statue of the Madonna was weeping blood by aiming a red laser beam at the statue's eyes from a gallery high in the church. The demonstration was part of a series of ongoing tests and demonstrations by the Italian skeptics group, CICAP. These are busy folks: in the six years they've been going, they've investigated some 5,000 cases of religious and occult fraud, 200 of which have been taken up by police (we feel so inadequate). Needless to say, the claims that the Madonna is really weeping continue, and she's supposed to be healing more people than the doubtless—soon—to—be—beatified Mother Teresa.

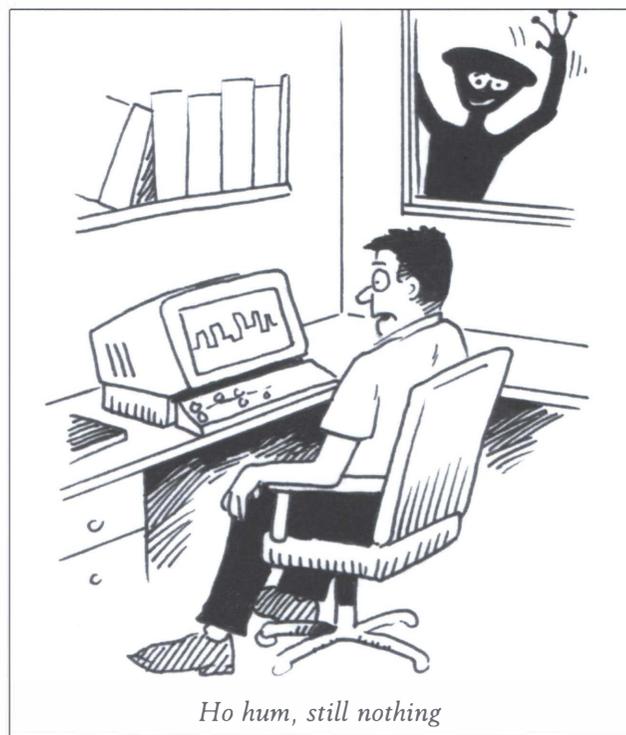
There are many other ways to make a statue appear to weep blood (our favourite is the one where you coat the statue's face with an acetone—based liquid that activates when exposed to ammonia). But this is the first useful thing we've ever heard of to do with a laser pointer. Just remember, folks: don't try this at a tennis match.

A different kind of QI

Readers of *The Skeptic* who don't follow the wild hype machine that is modern technology may not have heard of Kevin Warwick, the extremely visible robot guy at the University of Warwick. Beloved of the media – hey! he returns phone calls! and says sensational stuff! – Warwick is the sort of guy whose most recent book, *QI: The Quest for Intelligence* was described by the wonderfully sarcastic UK ezine *Need to Know (Now)* as 'reassuringly bonkers'. Warwick's latest media—friendly gambit is getting a chip implanted in his body and wired into his nervous system. His idea is that the chips will enable telepathic communications, transmitting emotions, pain, and physical movement impulses between implanted folks. The first test will be to use the chip to write on a computer screen by writing the letters in space with his finger in front of him. There are sensors and radio signals involved, of course, so one of the prime tenets of the traditional form of telepathy, namely that it works just as well no matter what the distance, won't apply. Part of Warwick's idea is that thus connected, if one person hurts his finger the other will feel the pain. Sounds like an ideal system for communicating with your dentist. If it ever works. For some reason, we're skeptical.

The search for IQ

It's probably about time for a report on SETI@home (<http://www.setiathome.ssl.berkeley.edu>), the project to find extraterrestrial intelligence that relies on the cooperation of millions of Internet/computer users around the world. The idea, as Toby Howard



reported in *The Skeptic* some time back, is that you download a small bit of screensaver software that takes over your machine when you're not using it, downloads a chunk of data to process, and works on it looking for bursts of emissions that might be significant, eventually uploading the results back to the project's home base, the SETI team at the University of California at Berkeley. As of November 4, the project had about 2.5 million users worldwide contributing their computers' spare capacity, and had received more than 222 million results. The project has yet to find evidence of extraterrestrial intelligence but it's still fascinating, and it's definitely the 'in' screensaver at places like *New Scientist*.

Gold—toothed wonders

More than ten years ago there was an American travelling evangelist who used to conduct revival meetings and claim that God's alchemy would turn the fillings in his audience's teeth to gold – in three weeks or so, long enough for him to leave town. Like all these guys, he had his adherents that swore such changes had really taken place even though their dentists disagreed with them in the cases that were checked. (As we remember the story, the dentists often said the fillings were gold to begin with.) In 1999, however, reports spread that this miracle was becoming standard fare at some of the charismatic churches in England. Surrey, to be precise. At the 1999 Intercession Conference, run by the Toronto Airport Christian Fellowship, some 150 people reported miraculous changes in their teeth. The TACF chose to investigate the claims, surveying the

claimants. About a third of the people the TACF contacted went to see their dentists. A number, not specified, of the dentists either declined to comment or said their patients' teeth just looked polished by grinding of teeth or eating something acidic. Others said they had put in the fillings and the patients had either forgotten or just weren't aware of the work that had been done in their mouths. About 5 percent found that their dental records conflicted with what appeared in their mouths, but the dentist said that there was probably an error in the records or they were old. The TACF report concludes, 'About 5 percent of the dentists were surprised at the changes in their patients' teeth and were willing to say that a miracle seemed to have occurred. Of this five percent about 1 to 2 percent were willing to verify by writing a letter of support for their patient.' We wish the TACF were a bit more specific with its numbers – if it started with 150 people, a third would be 50 and 5 percent of that would be two and a half, and the final 1 to 2 percent would be a fraction of a person. Something is clearly wrong here, which may be why the Christian Resource Web site The Cutting Edge lists gold teeth miracles as something to avoid.

X—ray religion

One of the more intriguing clippings in the present pile is a story about an artist who likes working with X—ray portraits of people's heads. The story, from the *Sunday Telegraph*, focuses on an image the artist, Alexander de Camaret, had taken of the head of disgraced former Cabinet minister Jonathan Aitken. The finished portraits are eight feet high, and last year were selling for some £10,000 each. Aitken, who sat for his skull portrait in between sessions at the Old Bailey, is supposed to have felt the picture has a religious significance, reminding us of our mortality. In the old days, of course, when people were less panicky about X—rays, you used to get this sort of thing at the doctor's. However, at least if Aitken ever claims he's had miracle fillings the ones that were there in 1999 are part of the public record.

Faulty vision

It's fascinating – but sort of churlish – to report that yet another mysterious phenomenon may simply be the result of physical abnormalities. In this case, The Times reported in September that sightings of ghosts and goblins may be hallucinations caused by eye disease. Don't blame us. The theory comes from the Institute of Psychiatry, which says that disembodied and distorted faces are common features in the images seen by the majority of people who hallucinate. According to the Institute, the hallucinations happen when the brain's visual cortex is denied stimuli because of visual blockages. These are caused by common eye problems such as glaucoma or age—

related macular degeneration. Or psychedelic drugs or the hypnopompic and hypnogogic states the brain gets into when just waking up or falling asleep. It just goes to show how much more alike we all are than we like to believe: even our hallucinations follow common stereotypes. Very frustrating, of course, if you're someone who wants to believe your visions make you special.

What's Chinese philosophy got to do with it?

The Feng Shui fad continues with its adoption by the British Tomato Growers Association, who apparently are desperate enough to try anything to help them compete with foreign growers. For the tomato growers, Feng Shui has two hopeful properties. First of all, if they're really lucky maybe Feng Shui will



have the same effect on their glasshouses as introducing bumblebees to live in them and pollinate the plants – better yields with less work. Second of all, Feng Shui (so says the association's press release) means that for good health 'we should eat only fresh, naturally produced foods which are grown in your own county or country.' In other words, eat British tomatoes. Isn't that what they said all along?

Ig Nobel awards 2000

Britain has always done well – or rather, badly – at the Ig Nobel awards, and this year was no exception, with the British Royal Navy winning the Peace award 'for ordering its sailors to stop using live cannon shells, and to instead just shout 'Bang!' Britain also

scooped the Public Health award, which went to Jonathan Wyatt, Gordon McNaughton, and William Tullet of Glasgow's Western Infirmary, for their 'alarming' (the Igs' description) report, 'The Collapse of Toilets in Glasgow.' [Published in the Scottish Medical Journal, vol. 38, 1993, p. 185.] Remembering that these awards are for 'achievements that cannot – or should not – be reproduced,' we're glad to note that the Literature award went to Jasmuheen, whose exploits were detailed in The Skeptic 13.2, for her book *Living on Light*, which promotes the view that eating is optional, at least for humans. There could be no more deserving recipient.

Skeptics in a darkened pub

Skeptics in the Pub got hit by the 'forces of darkness' for its October 19 meeting, which had to be cancelled when attendees arrived to find the pub in total blackness. Robert Newman, one of the organisers, tells what happened: 'Apparently at 3pm everything went bang. Light bulbs burnt out, plug sockets melted, one of the fridges caught fire. Office next door and traffic lights outside were affected but nothing else. Office next door had smoking computers so they're probably in big, big trouble. London Electricity Board were digging outside when it happened but denied it was anything to do with them. Electricians were expected by 8pm but the chances of being able to run the pub with the damage and smell of burning, etc... I arrived at about 6.30, whole place pitch black, the emergency lighting should last 4 hours but had gone straight out, presumably bulbs blew. I checked the Jubilee but their function room was booked.' Speaker Richard Joltes was understanding enough to promise to reappear at the November meeting. From a distance, of course it's obvious that some psychic force felt it necessary to disrupt the meeting. The Skeptic will be happy to publish the best or most entertaining explanation sent in by readers.

It's good to be a lunatic

According to the Web-based news service The Register, people use the Internet and talk more on the phone in the run-up to a full moon. Says BT, who should know; the company claims there are cyclical peaks and troughs in what they like to think of as "calling behaviour". The Astrological Association of Great Britain apparently loved this titbit of news. Creative and emotional energy! Talking on the phone proves it!

Well, now. It's our general experience that talking on the phone isn't actually a form of creative energy. Instead, it's what writers and artists do when they're trying to escape work. Biologists call this

"displacement activity". For most writers now, logging onto the Internet is the high-tech equivalent of sharpening pencils and straightening paper. It's what you do to start working. Of course, the great thing about the Internet is you can spend whole days almost-working.

BT is still checking to see if it can come up with an alternative explanation (maybe it's people phoning each other about all those extra accidents that are supposed to take place at the full moon but don't). Meanwhile, The Register observed in its usual catty manner, "Scientists in Nepal have discovered a correlation between the number of grains of rice that pass through people undigested and teenage pregnancies in London."

Telepathy test

Our friend Richard Wiseman, in his mode as reader in psychology at the University of Hertfordshire, ran Britain's biggest-ever telepathy experiment in December, assembling 1,000 people at (appropriately enough) the Museum of the Unknown to try to transmit an image into the mind of a volunteer in a sealed room in a nearby office block. The volunteer was placed into what was intended to be a receptive state using the techniques of the Ganzfeld experiments: half ping-pong balls over the eyes, red lighting, and white noise. This is apparently supposed to induce relaxation by cutting down on external stimuli.

The experiment failed, however, to produce evidence of telepathy: the receivers scored 1 out of 10. Of course, this doesn't prove that telepathy doesn't exist, merely that it did not work on this occasion with these individuals under these conditions. It sounds like fun, however – though not as much fun as the 1970s tests conducted by the Grateful Dead to which this experiment was compared in several press reports. Congratulations to Richard Wiseman for pulling it off.

Shorts

Aloe, elixir of the stars – Gwyneth Paltrow is said to down a glass a day to retain her healthy glow (errr, what healthy glow? They don't call her the pallid ectomorph on alt.showbiz.gossip for nothing)...James Hewitt, tell—all lover of Diana, Princess of Wales, spent part of August 1999 searching the Congo jungle for a dinosaur. He didn't find the dinosaur, but he did find a doctor who said he'd seen it...the Cats Are From Mars page has moved to <http://www.catsarefrommars.com>...John Travolta displays yet more evidence of the clarity of mind and soul that comes with practicing Scientology by announcing he intends to make a sequel to the disastrously awful *Battlefield Earth* (which was, of course, based on the eponymous novel written by Scientology founder L. Ron Hubbard).



Miracle Cures: ONLY BELIEVE

As his cancer has gotten worse, readers' convictions that simple cures rejected by medicine can fix it pour ever faster into *Times* columnist **John Diamond's** mailbag

FOR THREE YEARS now I've been writing about me and my tumour in the *Times* magazine each Saturday. As the cancer has degraded from easy—peasey treatable through the various surgeon—confusing stages to its current apparently terminal state so the number of readers who have written in with alternative cures has increased. I've had the lot: Girson therapy, naturopathy, megavitamin diets, laetrile, Essiac – any and every therapy listed in the Questionable Cancer Therapies section of the Web's invaluable Quackwatch site has been offered to me as a cure.

None of them work, of course. I'm no particular fan of the free market in general, but if coffee enemas really did work the wonders that Dr Girson's followers claim for them then every cancer patient would be using them. And, of course, every cancer doctor would be prescribing them. The single belief shared by almost all my correspondents is that there's a conspiracy between all those egotistical, money—grubbing doctors to keep these cures away from the suffering public. The truth is, of course, that it's precisely because so many doctors are egotistical and money—grubbing that if any one of them found a way of curing currently incurable cancers they'd use it tomorrow, claim their position as saviour of mankind and never mind what the drug companies – their partners in the conspiracy according to my correspondents – said.

I don't deny that my correspondents have the best and kindest of intentions. They really do want me to be well. But what is remarkable is not that they believe in these cures but the extent to which they're willing to go to delude themselves in order to maintain that belief. What's equally remarkable is just how often the same phrases appear again and again in their letters:

The doctors only gave her xxx months/years to live...

This is always in the preamble to a story of a miracle recovery as in 'Two years ago my aunt's doctor said she had only three months to live...' Except that doctors never quite say that. A year or so ago I was told that my cancer was probably incurable but that a particular form of chemotherapy might put it into remission.

How long did I have? Well, the doctor said, it was hard to say. Possibly three months, possibly longer. If the chemo worked then possibly a year or two. Subsequently friends asked me the same question I'd asked the doctors: how long? For a while I told them what I'd been told: I had three months to live. But, of course, I hadn't been told that. It was a possible interpretation of what I'd heard, but then so was 'a year' or 'two years' or 'who knows?'

If I, so resolutely opposed to alternativism, found it easy to translate the prognosis so dramatically, how much more likely is somebody who has embarked on some last—ditch cure or another to make the same translation and thus prove the efficacy of whatever snake—oil they're dosing themselves with?

...and x months after he'd started on the treatment the tumour had shrunk by half!

Which always sounds impressive and invariably comes at the end of a story about somebody who'd been sent off home to die. The last time I got an e—mail with this announcement in it I e—mailed back: if the patient had been sent home to die how come they were given the scan which showed that the tumour had shrunk? Scans are expensive and are generally given only to those the doctors think they can help.

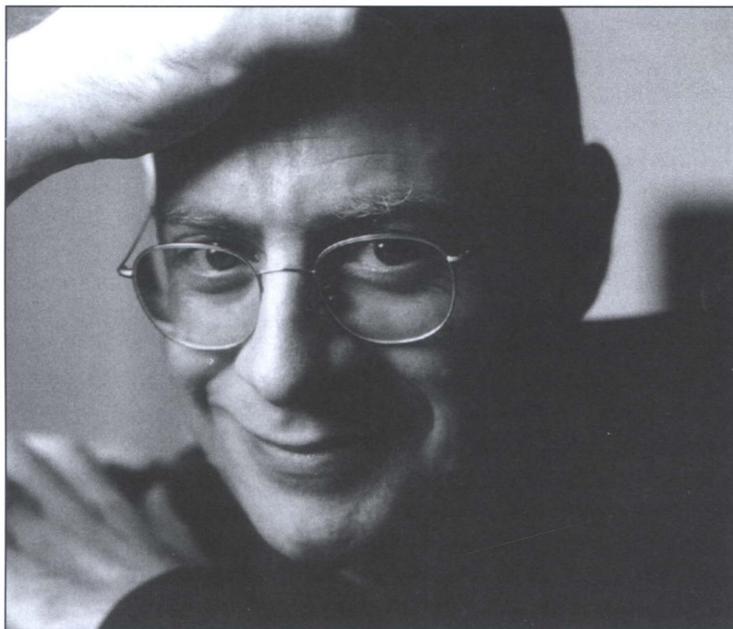
It turned out, as it always does, that the patient had been using the treatment – Girson therapy in this case – alongside high—dose radiotherapy. She hadn't been sent home to die at all but had been told that if the radiotherapy didn't work then her time was limited. And indeed whenever I've bothered to check on one of these miracle cures which seems to have given remission or, rarely, a cure, it turns out



that the patient has been taking it at the same time as some orthodox therapy. Why they should believe that it's the mad diet that works and that the radio—or chemotherapy has had no effect is beyond me.

The doctors were amazed by her progress – they even took pictures of her...

In this country cancer doctors have to spend 50 percent of their time telling patients that they're going to check out earlier than they'd imagined. It must be a pretty depressing way to earn your living. No wonder, then, that when there's good news so many of them tend to hop and skip with pleasure. The chemotherapy I finished last year had a 33 percent chance of working and about a 25 percent chance, if it worked, of keeping me going longer than three months after it finished. When I started turning up at the various clinics some months after the three—month point, the doctors gambolled like beaming lambs. How marvellous this was! How remarkable! How clever I was! How clever they were! Quick: let's take some pictures for the academic press!



It was hard for me to remember in all of this that terminal still meant terminal. I can well imagine that if I'd been taking the snake—oil diet at the same time as the chemotherapy I'd have walked out of the clinic believing that something miraculous and rare had been achieved.

This isn't an alternative cure: it's been proved to have worked...

The remedy I most often hear this about is damned Essiac. Essiac is an ancient American Indian recipe which was touted by a now—dead Canadian nurse and is the pride of Canadian alternative medicine. Despite the fact that the Canadian Health Board has found it lacking in certain curative essentials – like curing, for instance – it seems to be a generally held belief that Essiac is some sort of 'official' cure in Canada. I put this to one Canadian doctor who said that yes: hospitals in Canada do offer it. But only in

the same sort of way that hospitals in Britain offer a chapel to pray in.

...although the doctors won't say he's cured...

This is usually given as evidence of the general petulance of the medical profession when faced with a miracle cure not of their causing. What it invariably means is that the patient is in remission – which is something entirely different from a cure. So often proponents of alternative medicine use the same arguments for their own beliefs that they use against those of the medical orthodoxy. Thus, for instance, a single paper which suggests that homeopathy might possibly have some effect on some minor ailment or

another is taken as proof that homeopathy works in all eventualities while a single paper suggesting that some orthodox cancer therapy might not be all its cracked up to be is taken by them as equal proof that no orthodox medicine is worth considering.

It's the same with remission and cure. Tell an alternativist that the cure rate for cancer using entirely orthodox methods has quintupled since the turn of the century and you might well hear that this is a scam perpetrated by the

orthodoxy because when they say 'cured' what they really mean is 'hasn't returned for five years'. Which is true enough: generally speaking that is the definition. But then as it was the definition all those decades ago it seems a pretty fair comparison to make. On the other hand those same complainants are usually pretty happy to see a year or two years remission effected, as they believe it, by some nonce remedy or another as evidence of a complete cure.

So do I tell my correspondents all of this? Usually no. And for the same reason their doctors don't tell them it either. Being in the situation they're in isn't much fun. After all, I'm in it too. And while there's part of me which thinks the honest thing would be to tell the truth, why should I make things worse than they already are? If they're happy believing what they believe then that's fine by me. When these particular chips are down, you take what succour you can get. And in any case I'm pretty certain that if I told them otherwise they wouldn't believe me.

Requiem for Phyllis

Jan Willem Nienhuys tells the story of a Spontaneous Human Combustion

ACCORDING TO WIDELY circulated 'amazing story books' a young woman burst into flames spontaneously in a crowded discothèque in Soho, London, and burnt to ashes in minutes. This extraordinary event apparently occurred at the end of the 1950s.

The story of Maybelle Andrews who died in such a tragic and mysterious way has appeared in a number of versions. In April 1999 it surfaced in the respectable world of a magazine about the Dutch language (where it caught the attention of the writer). The discothèque disaster was mentioned in an article about spontaneous human combustion or SHC. The inspiration for that article was a fire-fighter's magazine of 1991. The story may have appeared to be reliable, because firemen don't tell old wives' tales.

Having investigated the various ways in which this and other similar stories have been reported in books and magazines I think I have figured out the origin of the tale.

The making of a horror story

Where does the Maybelle Andrews story come from? In itself it is highly implausible. Just for a start, an adult human body can't burn within five minutes just like that. Because of the short time involved, it would need a very high temperature, but the total heat of combustion of the human body is such that the effect would be similar to burning ten litres (or quarts) of gasoline within five minutes. The night club would have been gutted, and everyone present would have died of a combination of lack of oxygen and smoke poisoning.

But the story of Maybelle isn't unique in the annals of SHC. There is a similar story which dates back to the sad death of Phyllis Newcombe as a consequence of a fire at the ballroom of the Shire Hall in Chelmsford, England, in 1938.

The story about Phyllis's accident first entered the world outside Essex through an item about the inquest, published in the Daily Telegraph on September 20, 1938. That story was somewhat unclear, because it didn't mention the date of Phyllis's death, and paid inordinately much more attention to the fact that the ambulance had taken as much as 20 minutes to arrive. This may have given superficial readers the impression that the ambulance was too late to save Phyllis.

Prominent in the story was a quote from Coroner L.F. Beccles: 'From all my experience I have never come a case so very mysterious as this.'

The first author to write about Phyllis was science fiction writer Eric Frank Russell. In the May 1942 issue of *Tomorrow*, in the section 'Scientific Fantasy', he described all kinds of mysterious deaths, including puzzling fire deaths. Of the latter he summarised 19 cases (all from 1938 and the first week of 1939) that he had culled from British newspapers. He didn't mention Phyllis by name: 'Chelmsford woman burned to death in a dance hall' followed by Beccles's quote. A revised version of Russell's article was printed in *Fate* (December 1950), and this was reprinted in March 1955 in the UK edition of *Fate*. In *Fate* 'a dance hall' was changed to 'in the middle of a dance hall' and Beccles's quote read 'as mysterious' rather than 'so very mysterious'.

In *Great World Mysteries* (1957) Russell considerably enlarged the story. The atmosphere on the dance floor is set by 'Couples glided around the floor, others chatted and sipped soft drinks', the victim (still unnamed) 'burst into flames bang in the middle of a dance hall' and the remark is added that the victim didn't smoke and that she hadn't been in contact with cigarettes. Russell writes: 'She roared like a blow—torch and no man could save her.'

This version was probably the source for an article in *True* (May 1964) by the American writer Allan W. Eckert. He dated the accident to September 20, made the location 'the midst of a crowded dance floor', let the poor girl 'burst into intense blue flames' (like a blow—torch?), made her crumple silently to the floor, and 'neither her escort nor other would—be rescuers could extinguish the flames. In minutes she was ashes, unrecognisable as a human being.' Then Eckert made up the first name 'Leslie' for Beccles (and changed the quote again). The article was illustrated by a full—page picture of a kind of Marilyn Monroe in a sexy pose wrapped in flames.

When I emailed Eckert to ask for the source of his story (which I knew originally only through quotes) he emailed back that he lost his notes and didn't even have a copy of his own article.



The creator of the Bermuda Triangle, Vincent Gaddis, combines Eckert's version ('bluish flames', 'within minutes a blackened mass of ashes') with Russell's Fate article (middle of dance floor). His Beccles quote is a mix of Russell's and Eckert's versions.

Gaddis plays the scholar by giving the *Daily Telegraph* reference but judging from his text he never set eyes on that source.

Maybelle Andrews

Maybelle Andrews appears in a paperback by Emile C. Schurmacher entitled *Strange Unsolved Mysteries* (1967). Schurmacher mentions six cases from *Great World Mysteries*, but neither Russell nor anyone else is credited.

Some of Schurmacher's cases are word by word identical to Russell's, some differ somewhat in wording but not in content, and he seems to mix up Russell's sources.

The story of Phyllis is transmogrified further. Schurmacher's version gives the impression that he has seen the *Daily Telegraph* story, but that he had only Russell's book on hand when he wrote it up. He doesn't mention a source at all, and has only 'October' as a date. Shop manageress Phyllis Newcombe aged 22 (she ran a confectionery store owned by her father) became typist Maybelle Andrews (19), her fiancé Henry McAusland became Billy Clifford (22), the Shire Hall ballroom became 'one of London's Soho nightspots' and 'Maybelle' burst into flames while dancing the Watusi. The fire was extinguished by hands and a topcoat, but Maybelle died in the ambulance.

As poignant detail, Schurmacher pictures Billy 'with his burned hands swathed in bandages' at the inquest. (The *Telegraph* does mention the fiancé's helping to put out the fire, but more detailed stories in other, local newspapers say nothing about his role in extinguishing the fire.) The remarks of the Coroner are somewhat expanded, but they start with "In all my experience I have never been confronted by a case as fantastic as this.' The Coroner's name is changed to James F. Duncan. Coincidentally, both Russell's Fate article and book mention a burn victim named James Duncan from Ballina, County Mayo, Ireland in close proximity, opposite column or page.

We can safely assume that no one approximately called Maybelle Andrews died in or near London in 1938, or at the end of the 1950s, as Schurmacher later wrote for *Reader's Digest*. A search of the register of births and deaths using various spellings can find no trace of the death of a Maybelle Andrews between the first quarter of 1936 to the last quarter of 1946 or between January 1955 to December 1960. The British investigator Melvin Harris has been looking for Maybelle Andrews as well, and in vain. He also thinks that Maybelle is just Phyllis.

Rhythmic rotations

The following turn on the wheel of fantasy is by Michael Harrison. In *Fire from Heaven* (1976) he writes that he takes his story about Phyllis from the *Daily Telegraph*. He even thanks the *Telegraph's* librarian for providing him with the article. In his story he combines the blue flames and the 'blackened mass of ashes' of Gaddis with the boyfriend who 'tried to beat the flames out with his bare hands' of Schurmacher. Harrison lets Phyllis die in just two minutes.

The jacket blurb of Harrison's book mentions three cases to whet the appetites of his ghoulish readers, and one of them says: 'Phyllis Newcombe engulfed in blue flames on a dance floor and burned to black ash in minutes.' Harrison describes the party in the Shire hall as a 'weekly hop' (with quotation marks, as if he is taking it from the *Telegraph*) and he describes the inquest as a contest between a prejudiced Coroner and the stand—fast and inquiring father. Harrison quotes Beccles too, but he copies Gaddis, rather than the *Telegraph*.

Then Harrison discusses the Maybelle case and digresses on the remarkable parallels, even surmising that the mysterious fire from heaven must be attracted to rhythmically rotating movements of dancers!

Ablaze! (1995) by Larry E. Arnold is a 500—page book filled to the brim with an immense cluttered mass of descriptions and conjectures, with confused source references and without an index. Arnold also describes the death of Phyllis Newcombe (on page 200—201). He writes as if he knows what was in the *Daily Telegraph*, but he appears to rely completely on Russell, Eckert and especially Harrison and his numerous distortions, except for the quote of 'Beebles'[sic] which is exactly as it is in the *Telegraph* and in Russell's 1942 version. However, Arnold also read the local newspapers (The *Essex Chronicle* of September 2, 1938 and *The Essex Weekly News* of 2 and 23 September) and expresses puzzlement at the fact that the story there differs so much from Harrison's. That humans can make things up often seems too fantastic for purveyors of the paranormal.

Maybelle Andrews is mentioned by Arnold as well, now as a case from October 1938. For Maybelle Arnold refers to a personal communication from journalist Harrison, who 'remembered' the words of Coroner James F. Duncan, coincidentally precisely as Schurmacher rendered them. Six lines down the other James Duncan pops up in *Ablaze!*, but this remarkable coincidence apparently didn't ring any alarm bells with Arnold.

And so it goes on. Colin Wilson copies Schurmacher in *The Occult* (1971), Lynn Picknett (a 'leading authority on the paranormal' according to the blurb) copies Harrison in *Flights of Fancy?* (1987), but locates the Shire Hall in Romford and dates Maybelle in the 1920s.

Nigel Blundell summarises Phyllis and Maybelle in precisely six lines in *The Supernatural* (1996). In *Mysteries of the Unexplained* (1982), published by *Reader's Digest*, the tragedy in Chelmsford is also copied from Harrison, with precise references to Gaddis and Eckert. In *Strange Stories, Amazing Facts* (1976), also published by *Reader's Digest* we find an item written by Schurmacher himself, captioned 'Strange cases of human incendiary bombs' and adapted from his own book. Here he dates the event 'in the late 1950s'.

In 1967 Schurmacher let Maybelle die on the way to hospital from inhaled smoke, but in 1976 it's first—degree burns that were fatal even before the flames were out. One wonders why instantaneous death by first—degree burns didn't graduate from *Reader's Digest* into the medical literature.

Spontaneous

Human

Combustion

by Jenny Randles and Peter Hough

appeared in 1992.

They also mention the cases of Phyllis and Maybelle, and they say that they cribbed the whole story from Harrison. That's only partly true: their version of Billy Clifford's testimony is straight out of *Strange Stories, Amazing Facts* and their date 'late 1950s' comes from the same uncredited source.

Randles and Hough use the cases of Phyllis and Maybelle to surmise that music and dance can attract dangerous kundalini energy. They do not consider that probably billions energetic dances have been performed in the twentieth century alone without the dancers breaking into flames.

It was the Dutch translation of the *Reader's Digest* 1976 book (lacking any references whatsoever and omitting the first—degree burns) that formed the inspiration for a column in *Flevo*—alarm of June 1991, the newsletter of the fire brigade of Lelystad, and hence the source of a 1999 discussion in a magazine dedicated to the Dutch language.

The true story of Phyllis

Reading the local newspapers about the tragedy of Phyllis yields a completely different picture. The English soccer season started again at the end of August 1938, and the Chelmsford City Football Club played its first match on Saturday August 27. The C.C. Supporters' Club organised a dance party for the occasion in the venerable Shire Hall (no 'weekly hop' as Harrison imagined, even with quotation marks as if



he copied it out of somewhere).

The mayor of Chelmsford and other town dignitaries graced the festivities. Among the 400 attendees was Phyllis Newcombe and her fiancé Henry McAusland ('Mack' to his friends). Phyllis had put on her best dress. It resembled a crinoline, billowing out and sweeping the floor and was made of white tulle with satin underneath and a dark blue waist sash.

When the party was over at midnight, Phyllis and Mack stayed a bit longer to talk and to avoid the rush of the departing revellers, but then they left too. Mack walked a few paces in front of Phyllis, but when he had reached the staircase (the ballroom was at the first floor of the Shire Hall), about 15 feet from the ballroom exit, he heard Phyllis scream behind him. He turned around and saw the bottom

front of the tulle dress burning very brightly and furiously.

Phyllis ran back to the ballroom, where about 20 people were talking together in small groups. They saw her stumble inside, all ablaze, collapsing in the entrance. Mr. Herbert Jewell, one of

C.C.F.C.'s directors, immediately took action, he and five others rushed to the rescue, wrapped her in coats and got singed eyelashes, eyebrows and cheeks in the process. An ambulance was called, which arrived in 20 minutes and Phyllis was taken to Chelmsford Hospital. She was diagnosed with serious burns on legs, arms and chest.

At first she seemed to be making quite good progress (her sister Edna, now living in California, tells of Phyllis's drinking champagne) but the wounds became septic, and led to pneumonia. And that was fatal. Even now in the era of antibiotics, death due to sepsis is a dreaded result of serious burn wounds. Phyllis died on Thursday September 15, 1938. The inquest was held on Monday, September 19, 1938 in the same Shire Hall, which had been a Crown Court since 1791.

Immediately after the accident it was conjectured that the dress had caught fire through contact with a cigarette end or a lighted match, thrown down from a higher place above the stairs. But witnesses hadn't seen anybody there, and moreover Phyllis's father, George, had been experimenting with the tulle and he had found that it wouldn't catch fire by contact with a burning cigarette, let alone by a grazing contact such as with

a falling cigarette end or by the hem of the dress sweeping over it. It's nearly impossible to set fire to a piece of cloth with a lighted cigarette.

George Newcombe repeated his test in front of Coroner L.F. Beccle (not 'Beccles' as reported by the Daily Telegraph and all others). McAusland conjectured that the dress might have acquired extra combustibility from the vapours of a chemical cleaning agent used six weeks earlier, but the Coroner didn't go along with this theory.

A match that would have been forcibly thrown from a higher place (a balcony over the staircase) would probably be out before it reached the floor. Also, Phyllis's dress caught fire on a spot that was not directly underneath that balcony.

Coroner Beccle conjectured that the fire probably was caused by a burning match on the ground.

Now how could a burning match be lying on the ground? I have to do a little guessing here. Smoking was not allowed in the ballroom, but the normal behaviour of smokers is to light up as soon as they leave a non-smoking area (they don't drop many cigarette ends then). They light their cigarettes with a match and extinguish the match, for example with a habitual wrist movement and then drop it unthinkingly. The match will go out immediately when it is shocked by hitting a stone floor.

However, when the match falls on a somewhat softer surface it occasionally stays burning for up to five seconds. The floor at the exit of the ballroom was described by the Coroner as made of rubber and a witness testified that a lighted match on the floor could go on burning. If my conjecture is correct, the source of the fire was a match thrown on the floor by someone who walked at most five steps in front of her. Phyllis was an indirect victim of nicotineism.

Beccle asked whether a burnt match was found, but Police Constable Thorogood stated that he hadn't found any. He hadn't found any cigarette ends either on the place where Phyllis's dress caught fire.

This isn't very remarkable. Immediately after the accident there must have been quite a few people passing the spot, coming and going, and an

already completely burnt match can easily have been trampled completely, or alternatively, the match can have been displaced as the hem of Phyllis's dress swept over it. It is a common feature of fires that their precise source can't be found any more.

So, even though there is an obvious explanation for the accident, it remains a peculiar coincidence for which there is only indirect proof: the place where the fire was first seen on the dress (in front, near the ground), the fact that given the quick spread of the fire it must have started right there and then, and the fact that the dress could only catch fire by contact with a flame. Coroner Beccle commented: 'In all my experience I have not met anything so very mysterious

as this.' Both local newspapers gave the same version of the quote.

It stands to reason that I am not the first who has tried to guess what precisely happened. Possibly Phyllis knew too. In the hospital Mack asked if she knew the careless devil that had thrown the cigarette end. She answered: 'What does it matter as long as I get right again?' This answer might suggest that she knew what must have happened, but that she was such a sweet person that she didn't want to say.

Phyllis was buried on Wednesday September 21. Many people attended, both at the service in the Cathedral and at the cemetery itself. The *Essex Weekly News* reported 60

floral tributes. The accident had been an enormous shock to Phyllis's parents, who were on a holiday at the beach with Edna and possibly her three brothers too. Mack was killed while a pilot in the RAF in 1943. Phyllis's grave is unmarked, and the official history of Shire Hall describes the incident without mentioning her name.

Fiery trident from heaven

The Phyllis case of myth—mongering doesn't stand alone. During my investigations I stumbled on other ludicrous and demonstrably made-up stories.

Take for example the case of Willem ten Bruik. Russell doesn't mention him in 1942, but he writes in 1950 that 'a Dutchman Willy Ten Bruik had been lugged out of his car near Nimegen[sic]. Willy was a cinder. The car was little damaged...' The source was a translated report taken from an unnamed Dutch paper.!



It's not clear whether he received the report in April 1938, or whether that was the time of the event. In Russell's book it is the latter, and he says that it was 'a datum mailed in 1941'. This is curious because at that time the Netherlands was occupied by the Germans, who were at war with the British (among others) and mail service to the United Kingdom was definitely below standard.

Gaddis takes from an article by Michael MacDougall in the (Newark, N.J.) *Sunday Star—Ledger* of March 13, 1966 the



information that one William Ten Bruik died in a Volkswagen, and that the accident happened on April 7, 1938 in Nijmegen (near the east border of the Netherlands). This is strange for three reasons.

In the first place Ferdinand Porsche's design for a new type of a cheap car was revealed for the first time in the summer of 1938 in New York, and on July 3, 1938, the *New York Times* coined the word 'Beetle' for the car which was then officially known as KdF—Wagen. The first stone for the factory was laid on May 26, 1938, by Hitler himself, but civilian production only started after the World War, and only in 1947 were the first 56 Beetles delivered to the Dutch importer.

In the second place the name Ten Bruik doesn't occur in the Netherlands, at least not in telephone books now in use. There are many 'Ten Brink' and a few 'Bruikman', but no Ten Bruik. The Dutch word 'ten' suggests a location (like brink which means village square) and Bruik means usage, so by its formation the name is odd.

In the third place investigations by municipal authorities, police and newspapers in the neighbourhood of Nijmegen have not found a newspaper story or a registered death that corresponds to this case. These authorities know the story, because every now and then they are questioned about it. The first such question was asked by UFO researcher Philip Klass in 1967, who was checking an embellishment of the MacDougall story as told in a UFO—book. Ever since then helpful Dutch officials have been searching old newspapers and archives to no avail.

The story of Willem ten Bruik is told in connection with two other burnings in vehicles, one in Upton—by—Chester near Liverpool and the other involved helmsman John Greeley aboard the S.S. *Ulrich* in the Irish sea. The special thing about these cases was supposed to be that they happened at exactly the same time: 1:14 PM in the Irish Sea, 2:14 PM in Upton—by—Chester and 3:14 PM in Nijmegen, at

least that is what the UFO—book said. How events presumably known only by their results can be timed so exactly is a miracle in itself.

In Upton—by—Chester the victim was called George Turner. In reality it was Edgar Beattie around 5 PM on April 4. The April 7 date belongs to the issue of the *Liverpool Echo*, the source for Russell's report on this. In *Fate* the Ten Bruik story follows the Upton—by—Chester report, accompanied by the indication

'same month, same year', and that was all MacDougall needed to assert a miraculous coincidence. Schurmacher mentions the Beattie case too (with the *Daily Telegraph* as reference) but he provides the victim (unnamed by Russell) with the name A.F. Smith. Schurmacher seems to like the middle initial F. This made Harrison point out the remarkable coincidence of two similar accidents on the same spot: another proof of the strange pattern seeking behaviour of the fire from heaven.

Whatever happened in the Irish Sea on April 7, 1938, it can't have been aboard the S.S. *Ulrich*, because that ship never existed, as Philip Klass established. Larry Arnold writes that he couldn't find any deaths of Turner and Greeley in British newspapers around that time.

The simultaneity of these events is also problematic: the Irish Sea has the same time zone as Greenwich, and before WW II Dutch summer time was only 20 minutes ahead of Greenwich, not a full hour.

Harrison exaggerates this story even further. He blames Russell that he missed a curious geographical coincidence related to this triple death. This shows that Harrison can't read, because Russell didn't mention Greeley or the S.S. *Ulrich*. Harrison claimed that the three accidents happened at the vertices of a giant equilateral triangle, and that the names of the spots (*Ulrich*, Upton and Ubbergen near Nijmegen) also start with the same sound.

Then Arnold told Harrison that equilateral triangle wasn't what the map said. The S.S. *Ulrich* would have to have been a few miles west of Le Mans for that, deep inside France. Fortean Times editor Bob Rickard made fun of the dubious 'same sound'. Harrison changed in the next printing equilateral to isosceles, by moving Nijmegen to the south west of the Netherlands, the neighbourhood of Antwerp. He remarked that the three names really had the same

'oo' sound, because of the dialect near Chester. Unbeknownst to him the Dutch deviously went on pronouncing the first letter of Ubbergen like the 'ou' in double or the 'e' in butter.

I will leave now the discussion of mysterious trident of fiction that struck the earth on that memorable April 7, 1938.

I wanted to illustrate that whoever tries to investigate or explain stories of spontaneous human combustion (or other tall tales) should take into account that these stories can be distorted enormously, not only by eyewitnesses and newspaper journalists, but foremost by creative writers. They will change many details, leave them out or add them, make up names and dates and moreover they copy each other — often without mentioning their sources — so the distortions accumulate.

The bookshops are filled with good fiction, so these twisted illogical horror stories about so-called miraculous events couldn't be peddled to the public if the authors didn't pretend that it all had actually happened. I see them as ghouls preying on the death and misery of other people to earn money and fame or convert others to their silly superstitions. They should let the dead rest in peace, or rather preserve their memory as they really were.

Further Information

The search for the truth of the Phyllis case has been a joint international effort of many helpful skeptics and others. The author wishes to thank: Mike Ashley, Henriette de Brouwer, Andries Brouwer, Scott Campbell, Edna Conolly (née Newcombe), Peter van Dijk, Marcel van Genderen, Mike Hutchinson, Marcel de Jong, C. Kostelijk, Dennis K. Lien, Clare and Ian Martin, Edna Newcombe (sister in law of Phyllis), Joe Nickell, Ed Oomes, H. Rullman, Ranjit Sandhu, Andy Sawyer, Margareth Schroth, Wayne Spencer.

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Global Warming? Chill Out

The death of the planet (pictures at 11) has been greatly exaggerated, says **Lewis Jones**.

'I SUPPOSE you don't believe in global warming either.' I can't be the only skeptic to have heard this taunt. It's usually issued as an ironical observation, in the manner of 'I suppose you don't believe in the law of gravity either.'

It's not really too surprising that many people assume global warming is a distressing fact of life, and that its results will be devastating. Media people bang on about it incessantly at the first sign of a change in the weather. Only a couple of days ago, I heard a TV news presenter trying to hustle a government minister into admitting that heavy rains in Kent were caused by global warming. And the minister in his turn was unable to come up with a reasoned response.

But if you've been wishing that you had some decent ammunition to counter some of these insinuations, take heart – the cavalry is coming. For example, science writer Ronald Bailey has taken a close and skeptical look at the whole doom—and—gloom scenario, and is highly unimpressed [1]). He makes it clear that the first thing to understand about the environmental movement is that it has nothing to do with science: it is about political pressure – the 'Armageddon complex.'

You may have already forgotten that as recently as the 1970s the same professional nail-biters were urging us all to worry ourselves sick about a new Ice Age, with the imminent return of mile-thick glaciers to North America and Europe. The watchword then was the Refrigerator Effect, and of course naughty humans were responsible for every dropped degree. 'Freeze or fry, the problem is always industrial capitalism, and the solution is always international socialism.'

Over recent years, the media have moved away from objective reporting, and become part of the propaganda machine. In the words of Melvyn Shapiro, chief meteorologist at the Colorado laboratory of the National Oceanic and Atmospheric Association, 'The press already knows what it wants to hear ... The press calls up the media darlings in the scientific community and they give the press the line. Reporters already know who is going to

give them the doomsday scenario.' (How often have skeptics made the same sort of complaint?) As if to confirm these fears, atmospheric scientist and environmental bogeyman Stephen Schneider admitted: 'We have to offer up scary scenarios, make simplified, dramatic statements, and make little mention of any doubts we might have.'

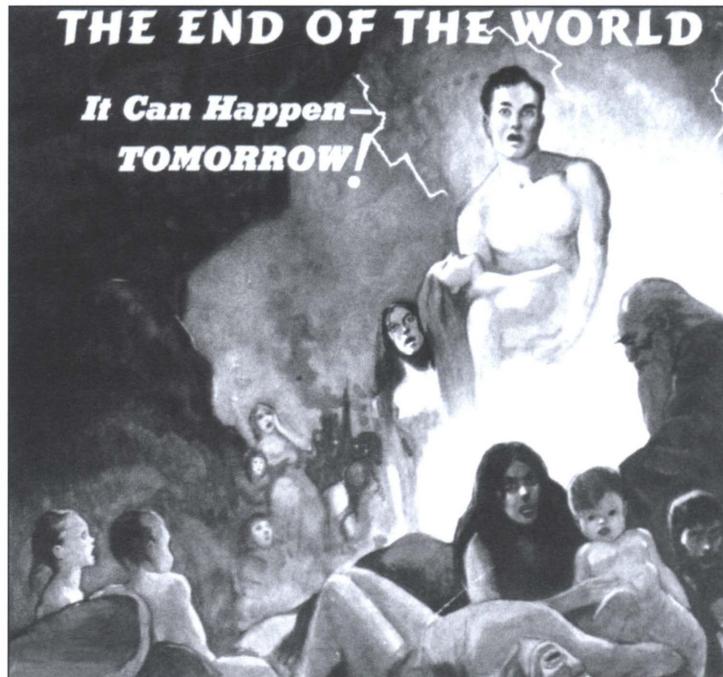
In the same year as Bailey's book, professor of economics Ben Bolch joined chemistry professor Harold Lyons in a scientific attack on econuttery [2]: 'All religious movements have essential tenets, and the main tenet of this movement is that the environment is being degraded by mankind rapidly, and that only an elect can save nature from imminent catastrophe ... Notice we did

not say that mankind needs to be saved from catastrophe: mankind has increasingly become expendable to believers of this religion.'

As a way of handling various impending perils, the ecotheologians have simply proposed an 'absurdly long time horizon, coupled with absolute state control.' We are back to politics. 'Having been defeated at every turn in their quest to improve the condition of mankind by control of the distribution of income and wealth, the old guard of socialists and economic planners has formed itself

into a new group of eco—socialists that has now an almost perfect excuse for a new kind of social control: the economy can be blamed for every conceivable quirk in the weather.' All this, in spite of the fact that 'understanding of the weather is so unsatisfactory that 90—day forecasting even with the help of large super—computers is only slightly better than tossing dice.'

And now, at the dawn of the 21st century that we have all heard so many dire warnings about, two climatologists have decided to join forces in pulling together the science of the best—known 'issue' of all – global warming [3]. Patrick J Michaels is a research professor of environmental sciences, and a past president of the American Association of State Climatologists. Robert C Balling Jr is professor of Geography and Director of the Office of Climatology at Arizona State



University, and a world authority on climate change. (They are well aware, of course, that by and large, environmental claims have little to do with science. They summarise Al Gore's campaign strategy as simply 'Vote for me or you might die.')

The planet's heat does not go directly out into space: certain elements of the atmosphere radiate part of it back to earth. This is the Greenhouse Effect, and of the 33 degrees worth, about 31 degrees of it comes from water vapour. (All temperatures quoted are Celsius.) But is the heating effect something we should worry about?

By 1988, the UN had formed the Intergovernmental Panel on Climate Change (IPCC). Its brief was 'to initiate action leading as soon as possible to recommendations ...' In other words, say Michaels and Balling, 'if the IPCC were to state that climate change was not a dire threat ... it would be disobeying the very orders under which it was created ... So the IPCC was designed to support a foregone conclusion.'

There is 'an entire army of IPCC participants who are known only as government functionaries,' and it contains 'very few degreed climatologists.' Towards the end of 1995, it put together an Assessment Report, but 'at 20 minutes past midnight on November 30, 1995, long after the scientific peer—review process was finished, a meeting of a very small fraction of the IPCC approved a text change. They inserted the statement: The balance of evidence suggests a discernible human influence on global climate. This highlights what Michaels and Balling call 'the perils of science by committee, which is how the IPCC operates.' Frederick Seitz, former head of the US Academy of Sciences (and president of the American Physical Society) commented: 'I have never witnessed a more disturbing corruption of the peer—review process than the events that led to this IPCC report.'

The natural greenhouse effect makes the surface of the planet about 33 degrees warmer than it would be without it. And it is worth bearing in mind that it is thanks to this effect that we are here at all: only 15 degrees separates earth's mean temperature from the freezing point of water.

The three main human contributions to an

increase in the greenhouse effect are carbon dioxide, methane, and CFCs. And carbon dioxide is responsible for about half of that change. In fact, carbon dioxide concentrations have risen from the preindustrial range by about 30 per cent.

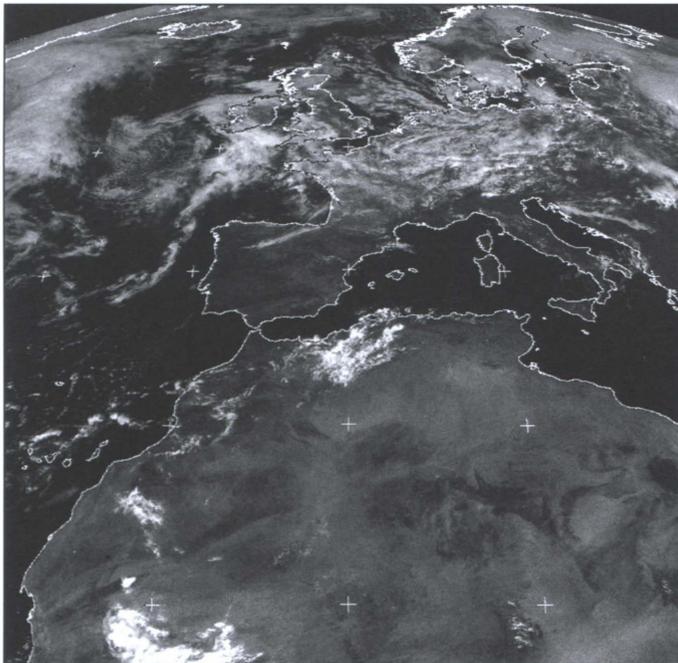
Surely computer simulations can tell us whether this is a Good Thing or a Bad Thing? Michaels and Balling are highly skeptical: 'Put simply, here is the core error: no GCM [General Circulation Model] has ever succeeded in creating a troposphere (the bottom 40,000 feet of the atmosphere) that behaves at all like the observed data of the last quarter of the 20th century... In other words, while the United Nations was promoting the paradigm that the models were 'generally realistic' and using them for sweeping policy recommendations that could gravely harm United States prosperity, the models were in fact making massive errors that the IPCC was loath to note. After all, if the GCMs were calculating unrealistic average temperatures for the troposphere, how could they make predictions about the future?'

So – has the earth indeed warmed, as people claim? 'If they mean the surface of the planet in the last hundred years, there is doubtless a warming ... At various levels above the surface – from 5000 feet all the way to the stratosphere – there is no warming at all in the last two decades. This is where and when we should expect the greenhouse effect to be rapidly toasting everything.'

But temperature records have now been revolutionised by measurements from satellites. Their accuracy is thought to be one—hundredth of a degree.

What do these measurements show? For the details and graphs, you will need to consult the book, but in summary: 'The slight warming trend in Northern Hemisphere and global MSU [Microwave Sounding Unit] temperature is purely driven by the heat of the 1998 El Niño working its way out to space. Take that year away and there is no trend.'

This kind of detail has eliminated at a stroke most of the area of imprecision that had become the stalking ground of the doomwatch brigade. And it accounts for the lament of the Union of Concerned Scientists' Harold Ris at a White House global warming pep rally in 1997: 'We've got to do something about the satellite.' It also accounts for the poignant fact that the IPCC's 1995 Policymakers Summary 'contains not one mention of the word 'satellite.'



So where is the added warmth going? In the Northern Hemisphere, 69 per cent of the postwar warming is in the winter. And of that, 78 per cent was confined to the very cold high—pressure systems of Siberia and northwestern North America. Warming is therefore compressed into ‘the most obnoxious air masses we know of, mitigating their deadly frigidity.’

In fact we are seeing a rise of ‘0.15 degrees per decade, largely crammed into a very small, very cold area in the dead of winter.’ Over the next century, the bottom line is a warming of around 1.5 to 1.7 degrees in the winter half—year, and 1.2 to 1.3 degrees in the summer, depending on assumptions about the sun’s behaviour.

Whenever there is a move away from the average in a local weather pattern, someone is sure to claim that global warming is behind the change. Is this justified? Even the IPCC admits: ‘Overall, there is no evidence that extreme weather events, or climatic variability, has increased in a global sense, through the twentieth century, although data and analyses are poor and not comprehensive.’

Droughts? The IPCC again: ‘there is little evidence for changes in drought frequency or intensity.’ Cyclones? Hurricanes? A review in the Bulletin of the American Meteorological Society concluded: ‘There are no discernible global trends in tropical cyclone number, intensity, or location from historical data analyses.’ It goes on to point out that the bulk of the evidence suggests little change in hurricane activity over the next century [4].

How about El Niño? Friend or foe? Al Gore had put forward the idea that the ‘terrible’ El Niño was a symptom of global warming. In response, Florida State University’s Jim O’Brien (who has studied El Niño ‘since before it was fashionable’) said: ‘El Niños have been going on forever. We can trace them back in corals a thousand years, so they have nothing to do with global warming, or anything like that. I just wanted to get that straight because there was a meeting in Congress today. Some ... kept saying that because this is the biggest one, that it’s due to global warming. I hate this stuff ...’

This is not to say the scare claims will come to an end. In Michaels and Balling’s words: ‘There is no doubt that the new generation of weather radars, Doppler machines that can actually see the movement of raindrops, is detecting a large number of small tornadoes that more primitive radar could not see ... Expect some breathless report to appear in a few years about a dramatic increase in tornado frequencies; but that will be nothing more than an artefact of the new detection technology.’ But isn’t the ice going to melt, and raise the level of the oceans, bringing disastrous flooding and

coastal inundation? In the first place, nonpolar glaciers around the world have been melting during the past 150 years or so. The initial cause of the melting was the rebound of temperatures from the multicentury period of lower temperatures that was known as the Little Ice Age, which ended in the mid—19th century. ‘The best guess range of sea—level rise during the next century would be about 5 to 11 inches – a rise that most people might well not notice and to which they could easily adapt. After all, much of the city of New Orleans is currently below sea level.’

Almost every reference to global warming makes the assumption that it will bring unqualified catastrophe. I guess good news doesn’t make good copy when your agenda is to strike terror. So we hear little about the reduction in fatalities that warmer winter months would bring. For almost all death categories, more people die in winter than in summer (the rate is 16 per cent higher). Heat—related mortality is actually going down. Why? The clue lies in two words – air conditioning. ‘The very technology that enhances the greenhouse effect – the production of electricity – is what saves our lives in the heat of summer. Without air conditioning thousands more would die ...’

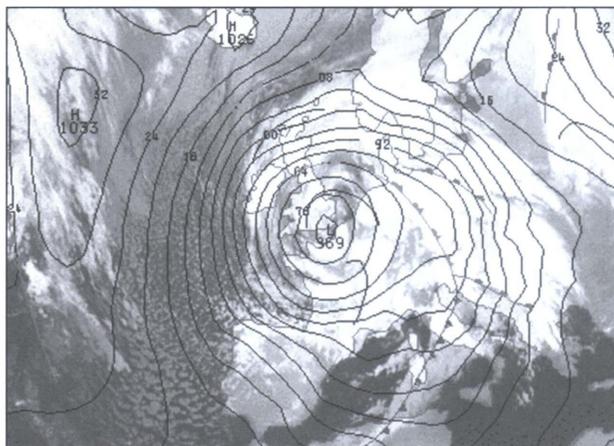
The other recipients of the bounty of extra heat are the world’s plants. ‘Recent findings about climate change and plant physiology suggest that the notion of planetary ecocide from global warming is simply wrong, and that its opposite – a greening of the earth – is occurring.’

There appeared ‘a bombshell article in Science that found that North American vegetation is growing so fast that it may be absorbing the entire annual emissions of carbon dioxide from the United States and Canada ... An overwhelming body of evidence shows the rising levels of atmospheric carbon dioxide are most favourable for the production of food and forests. Carbon dioxide acts as a fertiliser, increasing plant growth rate and mass by increasing photosynthetic capacity.’ [5]

S H Wittwer (who served as chairman of the of the National Research Council’s Board of Agriculture) has published the single most comprehensive review of this

subject [6]. He discusses hundreds of experiments that have confirmed that ‘global agricultural output has increased 8 per cent to 12 per cent in the last 50 years due solely to the rising levels of atmospheric carbon dioxide.’

Michaels and Balling suggest that we ‘consider it good fortune that we are living in a world of gradually increasing levels of carbon dioxide. The effects of this increase on food production are far more important than



any putative change in climate.' They add this sobering thought: '20th century temperatures rose about 10 times the amount that Kyoto would prevent in the next 50 years, and at the same time, life span doubled, crop yields quintupled, and the greatest democratisation of wealth in the world's history took place.'

Dennis Avery (scourge of the organic food propagandists, and director of Global Food Issues) adds his own topper [6]: 'Carbon dioxide acts like fertiliser for plants. Extra carbon dioxide also helps plants use their water more efficiently. More than a thousand experiments with 475 crop plant varieties in 29 separate countries show that doubling the world's carbon dioxide would *raise* crop yields an average of 52 per cent ... The increase in carbon dioxide will make forests all over the world healthier and allow them to support more wildlife. Canadian forestry researchers estimate that in a new warming their forest growth would increase by 20 per cent.'

The original global—warming scare—stories, he points out, were authored by eco—activists, who subsequently admitted that they were looking for ways to persuade people to live leaner lifestyles. 'But what if we're right?' the activists ask.

Avery replies: 'History says they are not.' Between the years 900 and 1300, the earth warmed by some 1.7 degrees, according to the Oregon Institute of Science and Medicine. This so—called Medieval Climate Optimum 'was a boon to mankind and the environment alike. The Vikings discovered and settled Greenland around 950. Greenland was then so warm that thousands of colonists supported themselves by pasturing cattle on what is now frozen tundra. During this great global warming, Europe built the looming castles and soaring cathedrals that even today stun tourists with their size, beauty, and engineering excellence. These colossal buildings required the investment of millions of man—hours – which could be spared from farming because of the higher crop yields. Europe's population expanded from approximately forty

million to sixty million. The increase was due almost entirely to lower death rates.'

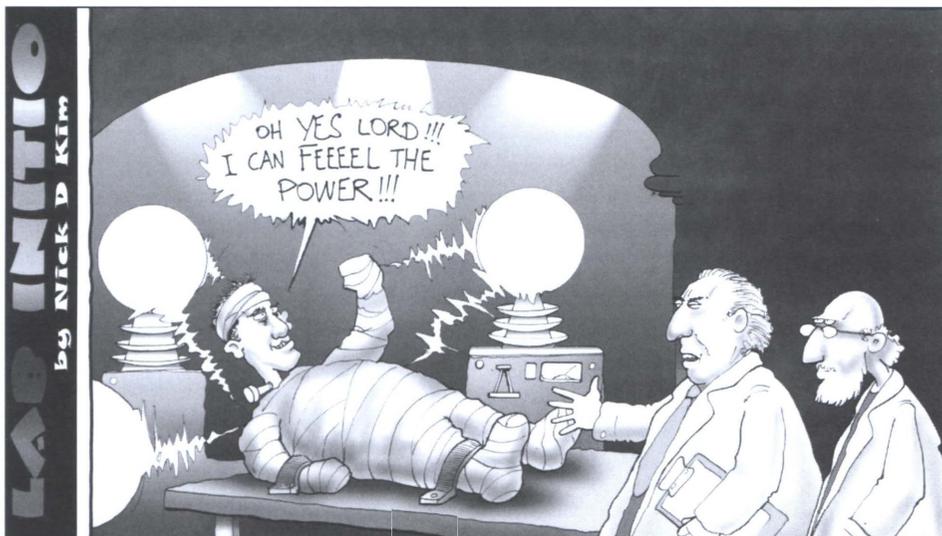
And the problem is that the 'solution' these activists recommend, however well intended, would leave much of the world without an energy system – and that would be deadly for both people and animals. 'If we were to triple the cost of coal, double the cost of oil, ban nuclear power, and tear out hydro—electric dams, which would be the result of the activists' approach, humanity would essentially be left without energy. And in a world of expensive energy, people would not be able to afford the window screens, toilets, clean water, and refrigeration that prevent millions of deaths per year.'

His final message is: 'the modest global warming now predicted should bring back one of the most pleasant and productive environments humans and wildlife have ever enjoyed We have nothing to fear but the fear—mongers themselves.'

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- [2] Ben Bolch and Harold Lyons. *Apocalypse not: science, economics and environmentalism*. Cato Institute, 1993.
- [3] Patrick J Michaels and Robert Balling Jr. *The Satanic Gases: Clearing the Air about Global Warming*. Cato Institute, 2000.
- [4] A Henderson—Sellers et al. 'Tropical cyclones and global climatechange: a post—IPCC assessment.' *Bulletin of the American Meteorological Society*. 79, 19—38. 1998.
- [5] S Fan et al. 'A large terrestrial sink in North America implied by atmospheric and oceanic carbon dioxide data and models.' *Science* 282, 442—43. 1998
- [6] S H Wittwer. *Food, Climate, and Carbon Dioxide*. Boca Raton, Fla: CRC Press, 1995
- [7] Dennis T Avery. *Saving the Planet with Pesticides and Plastic*. Hudson Insitute, 2000.

Lewis Jones is a writer and editor and a regular contributor to The Skeptic.



'All those perfectly adequate brain—donors out there, and Igor has to go and pick me a Tele—Evangelist..!'

Locating God

Is God merely an artifact of human brain function? **Barry F. Seidman** looks at new research into the subject

IS GOD hardwired into the human brain? Did our survival in the prehistoric world require a propensity for supernatural belief? Have the spiritualists and mystics been right all along? These are the kinds of questions being kicked about lately concerning what at least some are calling, scientific 'proof' of the existence of God.

A new wave of pseudoscientific books from authors like Fred Wolf and Deepak Chopra has indiscriminately postulated that science's most prized theories – that of evolutionary biology and quantum physics – are 'proofs' of God's existence and other supernatural phenomena. Wolf, for example, claims that quantum theory can explain why such paranormal abilities like ESP and telepathy exist; he (and others) is trying to explain consciousness, of mankind AND the universe, in terms of the possible interconnectedness of subatomic particles. Others are claiming that God seeded the human brain with the notion of divinity in order for us to survive and pass on our genes to propagate the species.

In short, for many people today, science has validated the word 'true' in true believer. But are these world views correct? What is science really saying about God and the supernatural? In fact, most scientists hold that God did not 'plant the seed of belief' into either human DNA or the human brain. Rather, the operation of the human brain/mind, through blind evolution and cultural mythos – sparked by the almost incomprehensible fear of the finitude of death – is what gave rise to, and keeps active, man's wishes and hopes for ultimate sanctuary.

In order to understand how God and man have become so profoundly intertwined then, we must consider what gave rise to the idea of God in our species in the first place.

The God Idea

If God did not exist, it would be necessary to invent Him – Voltaire.

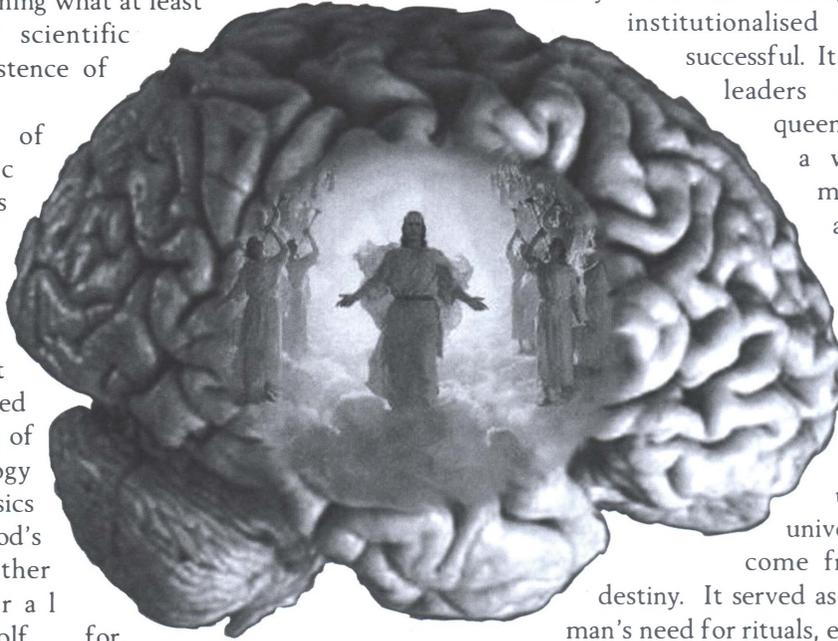
When you study the history of Homo Sapiens, many reasons emerge as to why institutionalised religion was so successful. It provided local tribal leaders and, later, kings, queens, and emperors with a way to control the masses. Fear of death and Hell went a long way in keeping dissenters and heretics in line.

Also, religion was able to fill in the gaps of what we did not understand about the universe, from where we come from to our ultimate destiny. It served as a method to oversee man's need for rituals, especially those rituals which accompanied rites of passage like birth, marriage and death.

Finally, religion offered solutions to the patterns we found in the universe. Humans are a pattern-seeking species – it's how the brain copes with reality and how evolution has adapted us for survival. Recognising patterns help us share the world with other animals, to be successful at agriculture, and to build artificial tools to foster our survival. Unfortunately, humans are so good at finding patterns, that we often 'find' patterns where there are none; from this arises superstitions like the famous Face on Mars and many of religion's tenets.

It can no longer be ignored however that for better or worse, through times of neighbourly love or holy war, the most powerful force of nature from which religion was ultimately born was entropy; or more precisely for us, death.

The human primate is at the same time, both extremely privileged and grossly unfortunate to have evolved as it has. Unlike any other animal on Earth, including our closest cousin the chimpanzee, humans have developed the ability to ask questions of the universe from which we sprang. For the first time, in this little section of the galaxy at least, the 'star stuff'



of the universe has learned about its own existence.

The cost of this awareness is a high one. Early humans, with their predictive abilities, soon realised that at some time in the foreseeable future, they would return to oblivion from which they came. Man was now able to imagine his own demise; and many of us have been trying to escape from that reality ever since.



The Birth of God

Alper argues, 'Due to the selective pressure placed on our species by our awareness of eternity and death, humans had evolved an inherent belief in an all-powerful figure, an imaginary being whose infinite powers could protect us from death and all that came afterward.'

Dr. Kate Makarec, a professor at William Paterson University in New Jersey, however, is not so sure. In a recent interview, she agreed with the notion that God and religion became intertwined with humankind's politics and even our mental health early on, mankind would have probably survived with or without the God idea.

In short, Makarec thinks that God was just one of many possible tricks humans have taught themselves to overcome the anxiety death produced. 'I tend to view the creation of God, and religion in general, as a product of our being smart.'

Makarec has participated in several neuropsychological studies into creativity and how the human mind's ability to imagine supplements our cultural and biological experiences and placates our needs. She feels that a 'smart and creative' animal will try to understand its surroundings with all the capacity its brain has. The smarter the brain, the more creative the explanations become. Along the way to understanding our environment, mankind created God, and, subsequently, found this grand idea also gave some relief from the fear of death.

Either way, God was born; Makarec feels that the propensity for believing in the supernatural, even today, depends a lot on the individual's capacity to be creative. But is there any proof that via evolution or as a by-product of creativity to measure and test our beliefs to find out just why they are so strong and have lasted so long? What is it that is actually happening in the human brain?

The scientific search for God

Mystical experience appears to be no less a product of the nervous system than is the reflex action to a pinprick or the appreciation of a Beethoven symphony. – Hudson Hoagland

Recently, the work of Dr. Michael Persinger of Laurentian University in Ontario, Canada, has seemed to confirm Kate Makarec's claim that 'God lives in the

temporal lobe of the brain.'

The temporal lobe of the brain is that which has been correlated with language and our sense of self. The frontal lobe is that part of the brain where we reason and organise the flood of data that pour in through our senses, separating nonsense from that which seems possible. Together, they have adapted over time to deal with the anxiety we adopted when we first became aware of our pending death. One well-known example of what happens when the frontal lobe doesn't function properly is the psychological condition called schizophrenia.

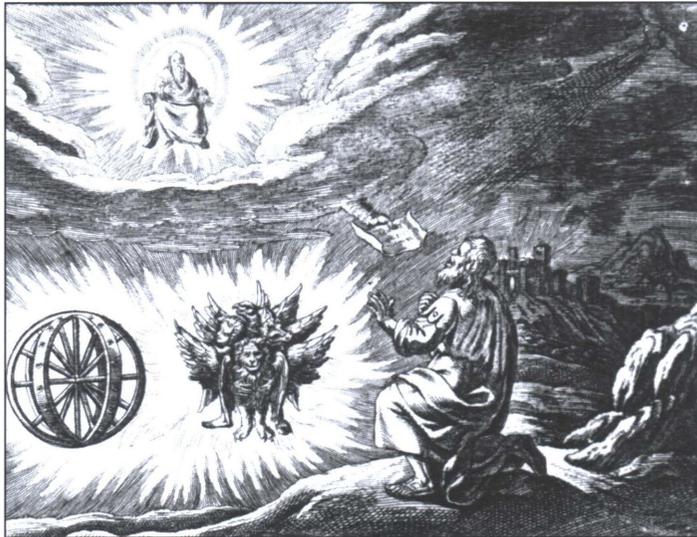
The exterior portion of each temporal lobe is called the amygiola. This part of the brain is what controls the intense emotions we all experience. When the amygiola experiences an epileptic-type seizure, which often temporarily separates the right temporal lobe (the right side of the brain) from the left temporal lobe (the left side of the brain), the event will not travel all the way to the cortex and therefore will usually go unnoticed during an EEG test.

Persinger thinks this happens in many people who are not schizophrenic or even epileptic, and believes it is this separation that gives rise to an unusual phenomenon which itself leads people to believe they have met God. The way he set out to prove his hypothesis was by utilising a well-known neurological brain stimulation technique called transcranial magnetic stimulation, or TMS.

Before explaining how Persinger has adapted TMS to 'study God', we need to understand a bit about the traditional use for this remarkable technique.

The first known researcher who understood the role of electricity in animals was the Italian Luigi Galvani, in 1771. But it wasn't until 1965 that R.G. Bickford and B.D. Fremming became the first to stimulate human nerves magnetically, using

harmonic magnetic fields. Their interest was in testing the electricity hypothesis: that the brain conducted its business via electrical impulses, most likely triggered by chemical reactions. It would take a few more decades before we were able to recognise that by stimulating various portions of the brain we could alter its bio-chemical pathways (such as neurons and neurotransmitters) to create a specific effect.



seizures in epileptics.[1]

Today, TMS is such a technique to do that very thing. Our brains, like the other organs of the body, are made up of differentiated cells containing positive or negative charges. According to Jarmo Ruohonen, Ph.D., of the Department of Engineering Physics and Mathematics at Helsinki University of Technology in Finland, 'An externally applied electric field may deviate the cell's membrane potential, that is, depolarise the membrane and hence activate excitable tissue.'

TMS works by using circular and array coils to stimulate the brain from outside the head. The coils carry a current and shoot pulses of electromagnetic waves into the brain. The voltage over the coil's connectors may be 3kV and, depending on how the coil is wound, the voltage across adjacent wires can be from 200V to 1,000V. The wire's insulation includes a liquid coolant to protect the coils from over heating. Generally, the shape of the electric field induced in the tissue depends on 1) the shape of the induction coil, 2) the location and orientation of the coil with respect to the tissue, and 3) the electrical conductivity structure of the tissue.

Is this safe? Ruohonen explains that TMS has been used since 1985, and that today, thousands of stimulators are in use. 'The present understanding is that single-pulse TMS is safe, if general guidelines are respected. One frequent harmless but uncomfortable effect is a mild headache, which is probably caused by the activation of scalp and neck muscles. Mild burns from scalp electrodes can be avoided using specially designed electrodes.'

TMS has been used in myriad ways over the last ten years. For instance, it can explore cortical excitability and intracortical connectivity in basic research on animals to find out how the brain functions. Clinical use of TMS can measure motor conduction in patients with motor deficits, such as those coping with multiple sclerosis, motor neurone

disease, and cervical spondylosis. Also, TMS can have a therapeutic function. It can, for example, help patients who suffer from medicine-resistant depression. Additionally, treatment with TMS has been studied in several psychiatric disorders such as schizophrenia, obsessive-compulsive behaviour and TMS may even reduce tremors in Parkinson's disease and reduce the frequency of

TMS and the search for God

Persinger believes that God originated from two very different pathways. Culturally, the human species is a 'group species'. People tend to do better and to be healthier when in groups than when alone. Social groups, or societies, need structure, and religion has proven to be a very good method of 'keeping the peace.' Of course, when deeply held beliefs vary in different cultures as much as they do in human society as a whole, there can often be as much violence and disorder as peace and order.

In society, God, according to Persinger, was born of a 'linguistic trick'. 'Anxiety is the anticipation of the aversive 'I will die.' Pair the word 'I' with something that has an infinite implication: God. If there is no end, there is no apprehension. The earlier we teach this to our children, the easier they will be sequestered and not fear death – at least not as much is the hope.'

The other pathway involves the neurobiology of the brain. Persinger explains that whatever we believe comes from our personal experiences. But experience is an artifact of our two brain hemispheres. Regardless of some differences in the two hemispheres of the brain, they both basically do the same thing, only slightly differently, and therefore actually a bit redundantly. When experimenters have separated the two hemispheres and stimulated the temporal lobe humans will often have a sense of a nearby presence or being/person. This 'presence' is born of the sudden awareness on the part of one hemisphere of the existence of the other. Each hemisphere tends to see the other as being outside of itself.

This 'sense of presence' is both very personal and yet not identified with 'I'. It seems immortal. Indeed, this is what Persinger thinks man has referred to historically when he has spoken of having 'religious experiences.' Moses' conversations with 'God', Mohammed's meeting with the angel, even the feeling of having 'spirits' with you alone in a dark house can be

attributed an epileptic seizure around or in the temporal lobe, a seizure the host might be totally unaware of. In fact, it's arguable that historically many 'prophets' indeed suffered from epilepsy.[2]

Persinger alters TMS and calls it instead, transcerebral magnetic stimulation, which utilises a motorcycle helmet fitted with electro magnets devised to generate magnetic waves to induce a weak magnetic field (of the power of a blow dryer) to stimulate the temporal lobe. Adding specific algorithms via a computer to the field, Persinger creates in the laboratory the same effect as an epileptic seizure – he momentarily separates the two hemispheres of the brain, allowing the subject to experience the sensed presence of the religious experience.

The micro-seizures into which Persinger sends the temporal lobe pose no threat to the subject's brain. He calls the sensation people feel during this experiment 'temporal lobe transient experiences.' In essence, he has found that God does indeed live in the temporal lobe, but only as the result of neurological malfunction caused by small seizures, either man-made or natural.

Some feel Persinger has made a significant breakthrough in neuropsychology, while others wonder if Persinger's use of TMS is another 'cold fusion' discovery.

Mark Scott, MD, director of functional imaging division of psychiatry and psychiatric neuro-imaging at the Medical University of South Carolina, almost goes as far as calling Persinger's work pseudoscience. 'A common method of applying sham TMS is to angle the coil away from the head. This produces mild magnetic field changes that are not sufficient to change behaviour, and are in the realm of stimulation employed by Dr. Persinger,' says Scott. 'In general, workers with TMS have strived hard to perform randomised double-blind studies employing a variety of different sham techniques, and most TMS results have been replicated across many different sites. To my knowledge, this degree of blinded work and multi-site replication does not apply to Dr. Persinger's work.'

But Persinger suggests that there is a difference between theorising that something ought not to work and trying it in the lab. Where Scott feels that weak magnetic fields won't do anything much at all, Persinger has demonstrated in various studies – including one conducted by an assistant on Persinger himself – that the sensed presence sensation is not only easy to evoke, but that once one has the proper equipment and obey safety protocols, he can give

himself a 'God experience' whenever he wants to.

Into the future

It won't take anyone too long to realise the potential danger of such technology and information if it falls into the 'wrong' hands. Just as ethicists are currently afraid that the Human Genome Project, which will allow people access to knowledge of every human being's genes could, when combined with genetic engineering, lead some to produce super-people, many are afraid that creating God can be both a profitable and extremely dangerous business.

Science has always offered man a variety of ways to utilise knowledge. We have used the technology of the atom to build nuclear energy for fueling the human lifestyle, and have created weapons so powerful that just a few could wipe us – and just about every other species – off the face of the planet in 45 minutes.

Persinger believes what we do with technology is what is crucial when science offers us new pathways. 'Who will control such a device? The fact is when you have a powerful discovery, powerful people want it. I wonder, will there be a capitalist revolution in creating God?' Persinger imagines a day where every household can have – next to the TV, perhaps – its own TMS helmet and where everyone may experience God any time they wish, day or night. A recent phone call proved his suspicions may be more than so much paranoia: 'The *Wall Street Journal* called me one day not very long ago and asked me if my helmet device is marketable.'

With TMS, science may have taken its first giant step towards proving what secular humanists and atheists have said all along: that man created God and not the other way around. Further study of the brain will lead us to a better understanding of how we create – biologically and psychologically – the means of survival which provides our species tenure on Earth.

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[1] See for example Jarmo Ruohonen, 'Transcranial Magnetic Stimulation: Modelling and New Techniques', doctoral thesis, Department of Engineering Physics and Mathematics, Helsinki University of Technology, 1998.

On the Web at:

<http://www.biomag.helsinki.fi/tms/Thesis/Thesis.html>.

[2] Possibility suggested by interviewees such as Persinger, Paul Kurtz, and Matthew Alper.

Further reading

Matthew Apler, *The God Part of the Brain* (Rogue Press, 2000).

Skeptical Stats

1. List price of Uri Geller's new 3D book 'The Parascience Pack', including dowsing rods, a rock crystal, and tools to test and improve your psychic powers: **\$49.95**
2. Number of 'inspiring pop.—up paper sculptures' included in the book: **7**
3. Amazon.com sales rank of said book: **29,579 (10/29/00)**
4. Cost of a 40" x 40" tabletop Vedic Observatory (incl. table) which allows one's Self to be attuned with the eternal order of cosmic life: **\$2,950.**
5. Number of suits in progress against the Japanese cult Hono hana Sanpogyo, which predicted 'dire futures' by reading the soles of people's feet: **more than 1,000.**
6. Date everyone believed Nostradamus predicted the world would end: **July 7, 1999**
7. Date of Nostradamus's actual prediction, taking into account calendar changes: **September 25, 1999.**
8. Number of scientists working for government quangos or in recently privatised laboratories asked to adjust conclusions in favour of corporate sponsors: **1 in 3.**
9. Number of people off work a day, in Britain with sore backs: **310,000**
10. Chances that a DNA sample will match a randomly chosen member of the population at large: **1 in 1 million.**
11. Chances of winning the top National Lottery prize: **1 in 14 million.**
12. Number of votes by which Governor George W. ('Shrub') Bush led Vice—President Albert Gore in Florida one week after the election: **300. (news media)**
13. Percentage that represents of Florida population: **.00002**
14. Number of numbers Astronomer Royal Martin Rees says underlie the physical properties of the universe and make life possible: **6.**
15. The first of the six numbers, the strength of the force that binds atomic nuclei together and determines how all atoms on Earth are made: **.007**
16. The second, the strength of the forces that hold atoms together divided by the force of gravity between them: **1,000,000,000,000,000,000,000,000,000,000,000**
17. The third, which measures the density of material in the universe: **identified only by the Greek character omega**
18. The fourth, which describes the strength of a force discovered in 1998 that controls the expansion of the universe: **'very small'**
19. The fifth, the amplitude of complex irregularities or ripples in the expanding universe that seed the growth of planets and galaxies and other such structures: **1/100,000**
20. The sixth: the number of spatial dimensions in our universe: **3**
21. Amount of fine levied on Matthew Williams for creating a seven—point star crop 'circle' in an attempt to fool expert Michael Glickman: **£100**
22. Percentage of DNA nucleotide sites that differ between two randomly selected individuals: **0.1**
23. Percentage of that 0.1 percent that distinguishes one 'racial' group from another: **5 to 10.**

Sources

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Still No Sign Of The Blue Smoke?

Can you influence the makeup of your brainwaves by carrying around a small transmitter?
No, says **Hugh Thomas**

A COLLEAGUE OF MINE came to work some months ago seemingly sporting a witch-like extra nipple. The flat round lump poking through his shirt's breast pocket was, however, inorganic in nature. It was, he explained, a miniature radio transmitter, giving off emissions on a frequency his ME (myalgic encephalomyelitis) therapist had told him was missing from his EEG spectrum.

EEG (for electroencephalogram) biofeedback has been around for a while – for example as a treatment for hyperactive children [1] – but this was the first time I have come across, as it were, EEG Therapy. It sounded somewhat reminiscent of irrational technological marvels of an earlier age.[2] Could this, I wondered, be another example of a pseudo therapy disguised by a cloak of rationality bestowed by the presence of scientific apparatus?

My friend the ME sufferer had been subjected to an analysis of his brain waves by the therapist. Then he'd been shown a sheaf of published literature purportedly demonstrating that he, like other ME sufferers, was missing some activity in a portion of the spectrum. So far, so scientifically plausible.

But then rather a leap of faith came into the logic of the matter as related by my colleague.

Carrying the little transmitter tuned to the appropriate frequency, he had been persuaded, was going to somehow kick-start activity in the depressed area of his brain, thereby bringing him back to normal.

But how, I wanted to know? Why on earth should one believe that the missing brainwaves might one day come out in sympathy – old fashioned Trade Unionist style – with the radio transmissions broadcast from that site next to a quite different organ? And in what sense could this be construed to constitute sufficient or even necessary conditions for a cure?

Scolding me for my cynicism, my colleague

explained that, while all right this was still frontier breaking and unproved technology – didn't I know all medical breakthroughs went through such a phase? – it was easy to see from certain obvious analogies how a cure might be effected in this way. Look, for instance, he advised, at the phenomenon of resonance in physics. If soldiers or Boy Scouts don't break step when marching across a bridge, they risk hitting the resonant frequency of the bridge with their massed footfalls, potentially setting it shaking itself to bits. Similarly, he might have added, when starting an old fashioned aeroplane a quick manual twirl or two of the propeller was all that was needed to start the engine and have that propeller spinning away like billy-oh.

The trouble, though, is that when talking about EEG you are dealing with a sort of thing that is really quite different from these examples.

An Austrian psychiatrist named Hans Berger discovered in 1929 that 'brain waves' could be recorded from the surface of the scalp. He went on to show that the electrical characteristics of these signals could be related to his patients' state of mind. For example, he noticed prominent synchronous waves with a frequency of about 10 cycles per second during relaxation. He christened these the 'alpha' waves,

contrasting them with higher frequency 'beta' waves that appeared as a patient became more alert. It became accepted that the electroencephalogram gave an index of overall activity in the brain, and its diagnostic usefulness in helping detect epilepsy or tumours, for example now goes without question.

However, it should not be forgotten that the EEG is quantitatively much more complex than, say, the electrical changes associated with the beating of the heart. With over 10 billion nerve cells in a human brain complexly communicating via a bewilderingly tight lattice of connections, even the most precise EEG recordings inevitably detect the chatter of hundreds of



Its not quite tuned to my 'missing waves' yet.

thousands of these cells, muted and distorted by the skull [3].

A different and at least equally plausible analogy for what's going on – or more likely not going on – in EEG Therapy might then be as follows. Consider an imaginary automobile production plant. Normally a flow of finished cars is coming off the end of the production line. Other phenomena are also observed when this is going on. For instance, blue smoke emanates from the factory chimney in a steady stream during production.

One day, something goes wrong and cars stop coming off the production line. What is the manager of the plant to do? He goes outside and scratches his head, and notices something: the plume of blue smoke has also ceased. A light bulb appears over his head as the perfect solution to the problem pops into his brain. He goes to a hilltop overlooking the factory, builds a bonfire, lights it and puts the right fuel on to make it give off blue smoke.

Once the flames are going well and the blue smoke is belching out, he sits back and looks over at the factory, confident in the expectation that its chimney will follow the example of the bonfire by making with the blue smoke too. Which of course will lead immediately to the flow of cars from the production line starting again.

This is the more accurate analogy with regard to EEG. EEG is an epiphenomenon, a by-product of



brain activity rather than any kind of process, central or otherwise, in itself. Treating a side effect of an illness won't cure that illness, even if your treatment is effective. And in fact there is no reason at all to believe that human psychophysiological processes behave in this sympathetic-magic-like manner. It's no more likely to work than our hypothetical factory owner's brainwave over the blue smoke.

Sure enough, months later my ME-suffering friend is still awaiting the first signs of blue smoke. He perseveres with his little transmitter, faith undaunted. When he gets better, as I hope he soon will, he'll say it's worked. While he

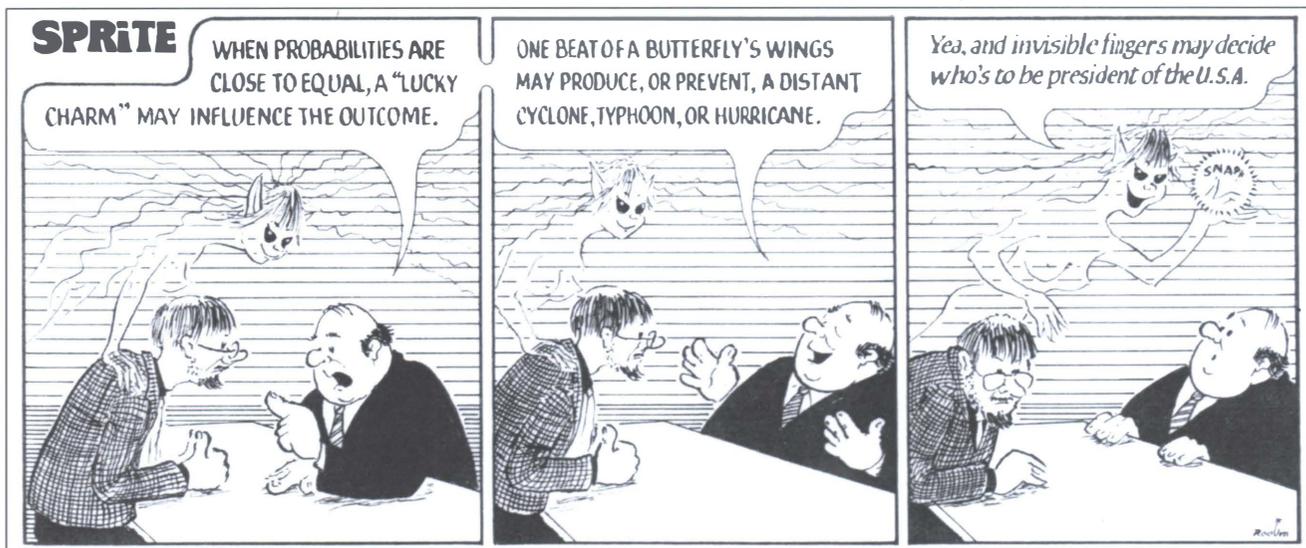
remains ill, he believes he just hasn't had enough of the treatment yet.

Such is often the way with true-blue belief in alternative therapies. Perhaps after all there was just a trace of witchcraft in my colleague's surplus nipple. Luckily for him and his therapist, we don't put people on bonfires for that sort of thing any more. Or they really would be seeing some smoke.

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Flying Saucers of The Third Reich

David Hambling looks at Nazi technology and the truth about foo fighters

STAFF SERGEANT Louis Kiss was tail gunner on a B-17 bomber of the 390th Bombardment Group, flying over central Germany in late 1943. He was keeping his eyes peeled for German night fighters when he saw something that was not an aeroplane. It was a glowing sphere of light, which approached the aircraft from behind. It was about the size of a basketball and of a shimmering gold colour [1].

As Sgt Kiss watched, the ball of light closed and hovered over one wing of the bomber, then passed over the top of the aircraft and paused over the other wing before dropping behind. Sgt Kiss thought about firing at the strange intruder, but decided against it. After a few seconds the glowing ball disappeared into the rest of the bomber formation.

Sgt Kiss was one of the first to report a foo fighter. They were described as small balls of light, seen singly or in groups, and yellow, orange or red in colour. They paced Allied aircraft and followed their manoeuvres; sometimes they flew off at high speed. They were invisible to radar, but they seemed to interfere with engine ignition systems, making them cut in and out.

Flying saucers were unknown in 1943 - the term was not coined until 1947 - and if little green men were involved they would have to be improbably small. This left two explanations: a natural phenomenon, or a German secret weapon. Some known natural phenomena did resemble foo fighters. St Elmo's fire is an ionisation effect that makes aerials and masts glow with eerie light in thundery conditions. It is familiar to aircraftmen, and always stays fixed to an object, not floating freely as foo fighters did. Static electricity discharges can create a glowing ball of plasma (ionised gas), but this only lasts fleetingly. Nothing was known to science that could produce a ball of light which could remain for several seconds or even minutes.

The obvious conclusion was that foo fighters were a new secret weapon.

Secret Technology Of World War II

The Third Reich was fighting against superior numbers, particularly on the Eastern Front. Their response was a strategy of developing weapons whose sophistication would make up for their numerical disadvantage. On seeing a film of the V-2 rocket in 1943, Hitler declared that this was 'the decisive weapon of the war' [2]. He started boasting to the German people of secret weapons which would defeat the Allies, and the myth of Nazi secret technology was born.

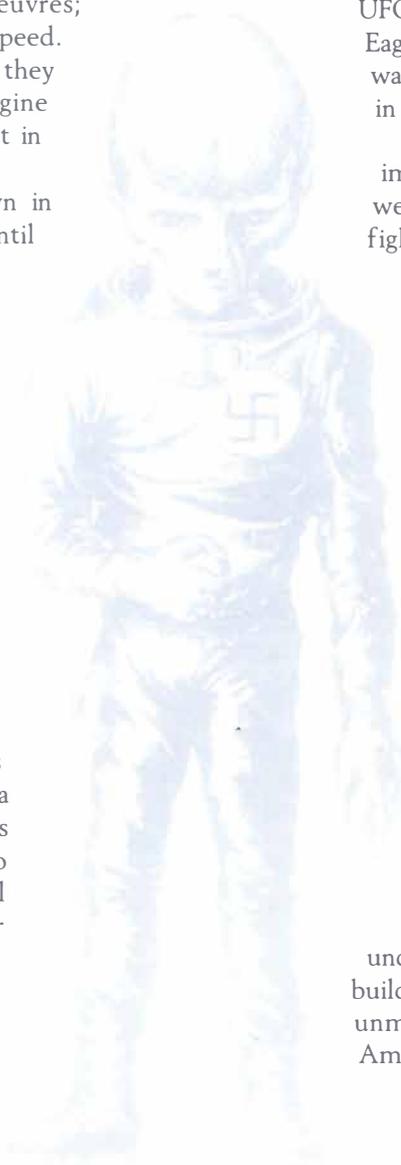
The myth has endured as a staple of thriller fiction. From the Hitler clones in Ira Levin's *The Boys From Brazil* to Christopher Walken hamming it up as a Bond villain to the "Paperclip" episode of *The X-Files*, we can rely on evil Nazi geniuses can to provide fiendish plans for revenge on the world.

More worrying are the supposed non-fiction works. W. A. Harbinson's *Projekt UFO*, Tim Matthews' *UFO Revelation*, and the current *The Invisible Eagle* by Andrew Baker all give credence to wartime flying saucers. Similar claims are made in extreme right-wing circles [3].

The Germans succeeded in notching up an impressive number of firsts in high technology weapons. They fielded the first operational jet fighter and later the first rocket-powered aircraft. Then there were the missiles, of which the V-1 flying bomb and V-2 rocket are the best known. Their inventory also included surface-to-air missiles, the Fritz-X anti-ship missile, an anti-tank guided missile and even the first air-to-air missile. So why not flying saucers?

An official investigation into foo fighters drew no definite conclusions. Sightings fell off during 1945 as the Allies overran Germany. Nothing more was heard until first flying saucer sightings in 1947, when it was suggested that the saucers were Russian vehicles built using German technology, just as the US and Russia used German ballistic missile technology.

Weight was added to this theory in 1971 when Renate Vesco published a book about the top secret work he had done during WWII [4]. Working at an underground base near Lake Garda he helped build the *Feuerball*, a small disk-shaped unmanned aircraft. The *Feuerball* harassed American bomber formations with electronic



gear designed to jam their radar and cause their engines to fail. Its surface glowed because of a layer of burning gas used to nullify air friction. According to Vesco, a larger manned version, the Kugelblitz, was also made, and after the war the technology was captured by the British and Canadians who kept it secret while developing their own craft.

Vesco's story is popular in some UFO circles and variations of the Nazi saucer theory crop up regularly. The big problem is the lack of corroboration. The standard aviation reference works detail the many Nazi prototype aircraft, but the Feuerball and Kugelblitz are not among them [5]

"Absence of evidence is not evidence of absence" has long been a mantra in UFO-believer circles. But we can examine how credible Vesco's claims are by comparing the Feuerball with known secret Nazi aerospace projects.

The ME-262 jet fighter was not a bad aircraft, but it failed to revolutionise air combat as it first promised. There is a popular myth that the plane was sabotaged by Hitler's insistence on a fighter-bomber version and that without his interference it would have ruled the skies. The interceptor version was not compromised and entered service only three weeks after the fighter-bomber, but did not make a great impact. The main problem was that the Juno 004A jet engines were very unreliable, and ME-262s spent most of the time grounded.



When it did get into the air, it fought the P-51 Mustang on approximately equal terms: "Unless it had the advantage of surprise, the ME-262 was no real threat to the latter' [6]. High speed is no advantage in a dogfight.

Even more advanced was the ME-163 Komet, a rocket-powered interceptor. It was undoubtedly the deadliest thing in the skies, but only to the pilot. The volatile fuel mixture was extremely unstable and liable to explode on takeoff or landing; leakages of the corrosive hydrogen peroxide fuel could literally dissolve the pilot in his seat. Problems with the hydraulics would lock the controls, so the pilot asphyxiated at high altitude (there was no oxygen

supply) or plunged into the ground in an awesome power dive. The Komet was so fast that it whizzed past Allied bombers giving the pilot no chance to aim at them; the fuel supply was only sufficient for one attack run. 370 were built and far more were lost to accidents than Allied fire. In all they accounted for no more than nine allied bombers. There were other rocket plane projects, but the Komet was the most successful.

Nor were the V-1 and V-2 were not the war winners that Hitler hoped. When attacks started the German press claimed that London was in ruins, but it soon became apparent that their effect was morale rather than physical. They were wildly inaccurate. Many missed London altogether, some going in the other direction and landing in the German Rhineland. No wonder the Germans nicknamed the V-1 the 'Versager - 1' ('Disappointment-1').

It has been pointed out that the Allies never had anything like the V-weapons; they never needed

them, having effective heavy bombers which the Germans lacked. Bombers were more accurate and had a much greater range than the V-weapons. The Allies dropped a hundred thousand tons of bombs on Germany every month, whereas the total of thirteen thousand V-weapons fired at England only carried ten thousand tons of explosives. V-1 and V-2s caused some nine thousand deaths: compare this to a single night's bombing

which killed more than thirty thousand in Dresden. The V-weapons were similar to Saddam Hussein's Scud missiles: they alarmed the civilian population, but could not make a difference to the war.

The V-2 in particular has been hailed as a technological triumph, but in practical terms it was a failure. It had similar range and warhead the V-1 but cost twenty times as much to produce. Three thousand test firings were needed before it was ready for action, but it was still crude. The Americans acquired several German scientists after the war, including the renowned Wernher von Braun as well as a number of V-2 rockets. With all the resources of

the US it still took fifteen years to achieve the first American satellite launch.

It has been estimated that the resources that went into V-weapons could have been used to build eleven thousand fighter aircraft. This would have been enough to stop the Allied bombers and give the Reich complete air supremacy.

As for the other Nazi guided weapons, none enjoyed much success. The majority were never brought into service. A notable exception was the Fritz-X anti-shiping missile. On 30th April 1944 twelve Fritz-X were launched at the battleship King George V in harbour; none of them hit the harbour, let alone the ship. The allies later developed countermeasures to jam its guidance system making it even less viable.

More exotic Nazi secret weapons were complete disasters as imagination overrode practical considerations. These included radar death-rays; the V-3 high pressure pump gun which tended to blow up on firing; and the outsize Maus tank which was too large to be transported by road or rail. Fantastic ideas, maybe, but not sensible ones.

The Feuerball and Kugelblitz flying saucers bear no resemblance to known projects. Their extraordinary capabilities and amazing success rate have no parallel with the Third Reich aircraft projects that we know. They belong to a fantasy world of Nazi super-scientists immune to the effects of wartime shortages and the problems of working with immature technology that dogged the other projects. Even Hitler finally despaired of his secret weapons and pinned his hopes on a split between the Americans and the Soviets. But the myth lived on. The examples discussed represent the saner side of Nazi science. Because of their hatred of the Jews, the Nazis felt compelled to reject anything that might be described as "Jewish science." The gap was filled by all kinds of rubbish; not just theories of the Aryan race, but astrology and bizarre cosmologies like the 'hollow world theory' which says we are living on the inside surface of a hollow Earth [7].

One irony is that the two most significant Nazi successes did not originate with them at all. The jet engine was of course invent by a Briton, Frank Whittle, while the German rocketeers were following in the footsteps of the American Robert Goddard.

Another irony is that secret weapons did play an important part in the war, but it was always the Allies who had the winning hand. Radar gave the RAF the crucial edge during the battle of Britain. The German Enigma code was cracked by the Bletchley Park boffins using early computer technology. And the last word in secret weapons was the atomic bomb, the idea for which had come from on Albert Einstein – ironically enough an German Jew in exile. But in spite of its obvious superiority, Allied science clearly lacks the appeal of the Nazi version with its shadowy secrets.

Other Problems

There are other problems with identifying foo fighters as Nazi flying saucers too. One is the discrepancy in size; Vesco describes the Feuerball as being over two metres across, impossible to reconcile with accounts of foo fighters. Sgt Kiss saw his from very close range, and called it "basketball sized".

Another issue is that secret aircraft do not stay completely secret for long, and fifty years is not plausible. For comparison, the U-2 spy plane was secret for five years after its first flight, the ultra-fast

A-12/SR-71 three years and the F-117 stealth fighter for eight years. Most strategically important was the B-2 stealth bomber, uncovered within two years of its first flight. In all cases there were leaks before the plane was officially announced. [8] The Tacit Blue aircraft, which was only ever a prototype, remained secret for eighteen years until 1996, but there were accurate descriptions circulating with a few years of its launch.

There is also the problem that nobody else has managed to build a decent flying saucer. Saucer designs were considered for stealth aircraft but were found not to be airworthy. 'The shape was the ultimate in low observability. The problem was getting it to fly' [9]. The Avrocar, sometimes mentioned in this context, was not a success, and the related Project Y/Project Omega recently turned out not to be a saucer at all. As the years go by it gets increasingly unlikely that the Nazis, working under wartime conditions, would be able to achieve something that engineers with modern engineering knowledge and supercomputer technology cannot replicate. The only reports of saucer-shaped vehicles come from the UFO community.

Finally, as Kevin McClure [10] points out, Renate Vesco was born in 1924. This makes it unlikely that he would, as he claims, have attended the University of Rome and the German Institute of Aerial Development before heading the technical section of the Italian Air Force in 1944 at the precocious age of 20.

Great Balls Of Fire

The original report was forced to rule out both natural and man-made phenomena, and the official line was that foo fighters were the result of misidentification of



other aircraft or, in some cases, mass hallucination. This is not a satisfactory resolution. It would be futile to claim that foo fighters were not a Nazi secret weapon unless there is a better explanation, and recent advances in science can now provide that explanation.

Ball lightning has been recorded since ancient times, but was not accepted until recently. Witnesses would see a ball of light which would drift slowly through the air, and then fizzle out, explode, or shoot up into the sky. Because there was no known physical basis for ball lightning it was dismissed as a trick of the light, hallucination or hoax. Scientists started taking it seriously when a professor of electrical engineering, Roger Jennison, was among the passengers of a Pan Am flight when a ball of light drifted down the central aisle and exited through the rear toilets.

Reports from other scientists followed; clearly there was more to it than an optical illusion. Sightings usually happen during or immediately after a thunderstorm, and high-voltage electrical equipment can also give rise to ball lightning. In 1996 two physicists, Ranada and Trueba, showed that an electrical discharge can form a knot [11], giving a physical basis for the phenomenon. The knot is only a few millimetres across, but is surrounded by a glowing corona of ionised air, as with a normal bolt of lightning which is only a few inches wide but creates a luminous channel several feet wide. This explains accounts of ball lightning passing through solid objects and leaving only a tiny hole.

Ball lightning appears to have the same properties as foo fighters:

- It can cause electrical interference
- It can be attracted to metallic objects and sometimes follows vehicles. Gladys Hughes encountered a ball lightning in 1981 which remained about a foot from her Ford Fiesta, matching her acceleration and deceleration exactly [12]
- It is generally yellow, orange, or red
- Size ranges from grapefruit to a few feet across. One witness in Australia reported one "about the size of a basketball like very golden butter in colour, and had the appearance of being 'spun' or 'fuzzy'" making it a perfect twin to the one seen by Sgt Kiss [13]
- Ball lightning lasts for a few seconds or a few minutes; the longest foo fighter encounter was approximately eight minutes. We would expect ball lightning to last longer at higher altitudes because of the lower pressure which makes ionisation easier.
- It can cause electrical interference

Ball lightning is rare, only appearing when two strands of lightning twist around each other in a particular way. It has not yet been possible to create ball lightning in the laboratory; there are obvious technical problems with handling the enormous



voltages and currents involved in very small spaces. However, there has been some success with creating the effect using intersecting electromagnetic energy [14]. It is possible that an interaction between German ground-based radars and allied airborne radar like the H2X system carried on the B-17 might have created individual ball lightings or even strings of them.

Of course not all foo fighters were ball lightning. As with other 'flaps', once word gets around observers will identify any unknown light as a foo fighter. However, given the number of men like Sgt Kiss watching for any sign of the enemy, it is quite likely that any ball lightning present would have been seen. And if it was seen, the report would be very much like the accounts we read of foo fighters.

Conclusions

Taking these facts into account, ball lightning emerges as a strong candidate as the source of the foo fighter sightings. There is no single feature which is not accounted for, and no reports which indicate that they were solid, structured craft rather than an electrical phenomenon. There were no sightings of flying saucers as such during WWII, only of balls of light, so this removes the only link that proponents of the Nazi flying saucer theory have with reality.

I doubt that this explanation will be embraced by the UFO community. Disclosures from alleged secret Nazi documents are much more exciting, and impossible to disprove. The lack of evidence can be dismissed as the result of the Germans covering up their work, while any attempt to discredit Vesco or the other advocates of Nazi flying saucers is an attempt to cover up the USAFs own saucers.

In reality the Nazis were not the evil geniuses that they were made out to be, and their brutal regime failed signally to match the scientific and technological achievements of the allied powers. There is a temptation to cast villains as dark anti-heroes with a mastery of occult powers, and in the

dark days of the war some people feared that the Aryan Master Race might be more than propaganda. But in the final analysis the Nazis were revealed as villains whose vaunted secret weapons were an empty threat. Their science, like their racial theories and other bizarre ideas, simply did not work. Having defeated the Nazis on the battlefield, we should not let them creep back by re-writing history.

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David Hambling wrote about the Brahan Seer in vol 12.4



Sarah had no idea what 'stigmata' were... until her teddy bear started bleeding

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When Crash Orphan -15 was adopted by humans, the grey hive chose not to interfere... but when the boy was taken to 'Sunday School' to learn 'Creationism,' they realised their mistake. Earth and its ignorant savages all died screaming.

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The Skeptic's Dictionary

Robert Todd Carroll looks at how the controversy over mobile phone health hazards started

THE BRITISH GOVERNMENT announced that soon all mobile phones sold in Britain will come with health warnings, even though the government itself is not sure what those warnings should be. The Department of Health (DOH) is creating a leaflet which will be distributed to shops selling mobile phones. Presumably, the shops will give the leaflet to whomever buys a mobile phone. The DOH has indicated that it will warn against extensive usage by children, though the scientific evidence regarding harmful effects of cell phones is hardly non-controversial. This month's *Lancet* has two opposing articles on the effects of cell phones. One claims that the greatest danger is from using them while driving ("Heavy mobile users were involved in twice as many fatal road accidents as light users"). The other claims that "mobile phone users under 18 were vulnerable to headaches, memory loss and sleeping disorders."

The November/December issue of *Technology Review* has a very interesting article on cell phones, science and the mass media by Gary Taubes. The article begins by reminding us that the cell phone scare didn't start with a scientific study but with a talk show.

"David Reynard, bereaved husband, appeared on Larry King Live with the remarkable accusation that cell-phone use had caused the brain tumor that killed his wife." Something similar happened years ago on the Phil Donahue show which began the Prozac scare. Joseph Wesbecker killed eight people and wounded 12 before shooting himself. His relatives went on the Donahue show (and the Larry King show and Geraldo) claiming that Prozac made him do it.

Anecdotes are often more powerful and persuasive than scientific studies. Add fear and a more-than-willing swarm of journalists to act as your advocate and you have a never-ending saga in the making. Those who claim to be standing up for the little person against the big-bad-corporations can make themselves look like heroes in the face of overwhelming scientific evidence that they are probably wrong. The problem is, as Taubes points out, science can't prove they are absolutely, positively,

finally and infallibly wrong. No matter how much evidence scientists produce, they can't prove a negative (or a positive for that matter) with infallible certainty.

Taubes writes:

"It is scientific only to say what is more likely and what less likely," as Richard Feynman put it, "and not to be proving all the time the possible and impossible." When it comes to what is more or less likely, however, everyone has a different opinion on how to weigh the odds. That the scientific community and the lay public do so by different standards of evidence is made obvious by the common belief in phenomena – from UFOs, ESP and ghosts to the continuing incarnation of Elvis – that are not considered likely by most working scientists.

Taubes quotes Francis Bacon who commented several centuries ago that the human mind naturally hones in on what confirms our beliefs and has a difficult time recognizing, much less seeking, negative data. The lay person not only does not do controlled experiments, he or she doesn't really see the need for them. Whereas the scientist knows how easy it is to deceive oneself and follows methods of investigation which minimize things like confirmation bias. Thus, an anecdote which is absolutely convincing to a lay person may have no weight to a scientist.

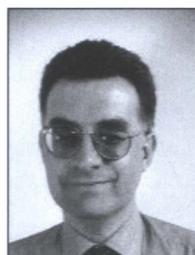
Furthermore, scientific studies, no matter how many or how rigorous, can never prove that cell phones are absolutely safe and could never cause a brain tumor. There will always be some uncertainty and, says Taubes, that "leftover uncertainty perpetuates itself indefinitely."

Thus, someone somewhere can always publish a study indicating that cell phones might be harmful. That one study will be played up by the media and soon the government will get involved (as it did recently in England), otherwise it will look like it doesn't care about the well-being of its people. We've seen the same thing happen in the US concerning medical mistakes and breast implants.

Robert Todd Carroll teaches philosophy at Sacramento City College, California, and is editor of *The Skeptic's Dictionary*, on the Web at <http://www.skepdic.com>. All extracts from *The Skeptic's Dictionary* are copyright © 2000 Robert Todd Carroll.

The Media and the Paranormal

Christopher C. French presents a skeptic's eye view of the uneasy relationship between skeptics and the media.



A FEW YEARS AGO, I took part in a Study Day organised by the Society for Psychical Research (SPR) on the topic of 'The Paranormal and the Media'. As the publicity material for the session pointed out:

The relationship between the media and psychical research has always been rather ambivalent. On the positive side, the media provide a valuable means of educating the public, a useful source of anecdotal material, contact with potential psychics and the opportunity to do experiments with a large number of subjects or to conduct surveys. On the negative side, the need for the media to entertain rather than conduct rigorous investigations often produces a somewhat sensationalised view of the paranormal, and this can be frustrating for the serious researcher.

I agreed to present the skeptic's perspective on this relationship, as I am one of a few British skeptics who appear fairly regularly on the media commenting upon paranormal and related claims. This essay is largely based upon my presentation to the SPR. In the first half of the essay, I will consider the relative advantages and disadvantages of the roles of believer and disbeliever in media contexts. In the second half, I will discuss the issue of bias in the media, with particular reference to *the series The Paranormal World of Paul McKenna*.

I should begin, however, by outlining my own personal perspective on the paranormal. I am generally unconvinced by evidence put forward in support of paranormal claims. However, I cannot deny that most people do believe in at least some aspects of the paranormal and a sizeable minority claim to have had direct experience of the paranormal. As a psychologist, therefore, I am faced with a challenge. Why do so many people believe in the paranormal and what might underlie ostensibly paranormal experiences if in fact paranormal forces do not exist? One possibility is that certain situations may wrongly be perceived by the observer as only being interpretable in terms of paranormal forces, where in fact normal physical and psychological explanations may be quite adequate. This is clearly only a working hypothesis, but it is one which I feel is much more powerful in explanatory terms than is generally appreciated. Whether it is powerful enough to account for all paranormal claims only time (and further research) will tell. It might come to pass that

parapsychologists will establish beyond all doubt that paranormal forces do exist. Perhaps the autoganzfeld studies are an important step in that direction (Bem & Honorton, 1994; but see Milton & Wiseman, 1999). I will wait and see. In the meantime, I will continue to investigate plausible non-paranormal explanations for ostensibly paranormal experiences. If it turns out that I am wrong and paranormal forces really do exist, I do not feel that the approach I am taking will have been invalidated. There is no doubt at all that the majority of experiences that people explain in paranormal terms are in fact nothing of the kind, as most serious parapsychologists would readily acknowledge. If my research helps parapsychologists to sort the 'real thing' (if there is such a thing) from the convincing illusion, then it will have served a useful purpose.

My research interests fit reasonably well with the declared purpose of the SPR which is to 'examine without prejudice or prepossession and in a scientific spirit those faculties of man, real or supposed, which appear to be inexplicable on any generally recognised hypothesis.' I say 'reasonably well' advisedly. I do not believe that it is possible to approach paranormal issues 'without prejudice or prepossession.' We all, whether we admit it or not, approach such issues with our own preconceptions. Indeed, one of the central topics of my own research is the effect that belief and disbelief have upon the interpretation of ostensibly paranormal phenomena. On paranormal issues, as with other issues, our beliefs bias our interpretations in predictable ways. This does not mean that our beliefs cannot change of course. In my own case, I have moved from unquestioning belief to extreme skepticism and slightly back again. I would like to feel that I am now best described as a moderate skeptic although I am sure that I struck many members of the SPR audience as anything but moderate. I would put that down to the biasing effects of their beliefs, of course!

I believe passionately that the best way to decide the issue of whether or not paranormal forces exist is by carrying out scientific research under tightly controlled conditions. Although not perfect, this is the best means that we have of controlling for our own inevitable biases. Therefore, I strongly support good mainstream parapsychological research.

Many of the issues that I have just raised are relevant to a discussion of the relationship between the media and the paranormal. There is little doubt that the media play an important role in influencing the level of belief in the paranormal. In general, I will

concentrate upon the role of television and radio in dealing with the paranormal, but many of the same issues are relevant to the treatment of such matters in newspapers and magazines.

There are various different types of programme to be considered. Probably the most frequently broadcast are the audience participation programmes such as, in Britain, *Kilroy*, *Vanessa*, *Esther*, and (formerly) *The Time, The Place...*, as well as those regional programmes aimed primarily at the late-night viewer who has just returned from the pub with titles like *Late and Live*. The level of debate on the latter can be summed up by the fact that the programme makers themselves will often openly tell you that they are aiming for something like 'Oprah Winfrey on speed.' It is clear that such programmes cannot hope to provide any serious in-depth treatment of paranormal topics.

The nearest radio equivalent to this type of format is the phone-in with a few experts in the studio. In my experience, the latter is often an altogether more civilised affair and can even be quite productive if enough time is devoted to a topic. The problem is that the only time that a couple of hours will be devoted to a paranormal topic is likely to be between midnight and the early hours – not exactly peak listening times.

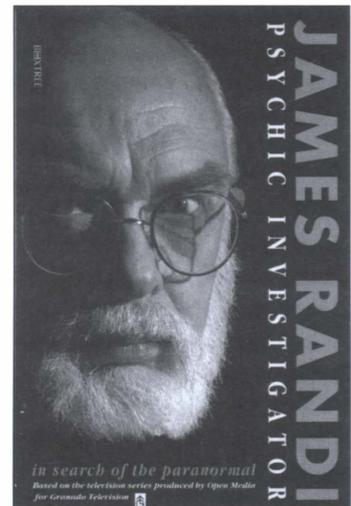
Then there are the serious documentaries. Given the nature of the paranormal, these may fit into either the scientific category, such as *Equinox* or *Horizon*, or the broadly religious category, such as *Heart of the Matter* and *Everyman*. In my opinion, these types of programmes often provide the best treatment of paranormal and related issues. This probably reflects the fact that the programme makers are able to devote more than a couple of days to making the programmes and those involved are often proud of the generally high quality of their programmes. Furthermore, the issues are considered with respect to broader scientific or religious contexts, adding depth to the treatment.

Over recent years, in Britain, we have been deluded by a host of series devoted more or less exclusively to the paranormal, including: Michael Aspel's *Strange...but True?* (with its ever-so-unbiased question mark at the end of the title), *Schofield's Quest* (in which members of the public were asked to help solve paranormal mysteries), *The Paranormal World of Paul McKenna* (about which, more later), *Secrets of the Paranormal* (produced, surprisingly, by BBC2's Community Programme Unit), and *Mysteries* (presented by the ubiquitous Carol Vorderman). Needless to say, skeptics get a little annoyed by the generally uncritical treatment of the paranormal in such programmes. In some cases, even when skeptics are featured, the presentation can still be somewhat biased as I will show later.

The fact that programme – makers have bothered

to contact informed skeptics at all is an indication that they wish to give at least the appearance of balance. It is clear that some programme-makers have either never approached informed skeptics or else completely ignored their advice. A case in point would be the *Beyond Belief* programmes hosted by David Frost, Uri Geller and Matthew Manning. As Polly Toynbee commented in the *Radio Times*, 'Beyond Belief was a well-titled programme, but there its merit ceased.'

In contrast to the numerous pro-paranormal series that have been broadcast recently, I can remember only one series ever with a decidedly skeptical approach to the paranormal and that was James Randi: *Psychic Investigator*, broadcast in 1991. There have been a few memorable one-offs, such as the excellent *Equinox* programmes on 'The Guru-Busters' and 'Secrets of the Psychics', and a superb *Horizon* on the Bermuda Triangle many years ago, but the fact is that such programmes are few and far between.



Believers vs. skeptics

So, what then are the relative advantages and disadvantages of being presented in the media as either a 'believer' or a 'disbeliever'? One clear advantage that the informed skeptic has over the informed believer is that of rarity value. Quite simply, there are very few people who are deeply interested in things that they do not believe in, but usually several dozen available informed believers for each paranormal topic. For me, paranormal claims are worth studying whether or not they are valid. If they are valid, then this is of profound importance in that it suggests that the current scientific world view is mistaken or at least incomplete in major respects. If they are not valid, then study of such claims can tell us a great deal about the human mind, in the same way that studying the perceptual errors produced by visual illusions can tell us a lot about visual processing in general.

Because of the relative scarcity of informed skeptics, one can find oneself presenting the skeptical perspective on a wide range of issues, from angels to zombies. OK, I admit that I've never done

a programme on zombies, but I've done yetis so that gets me most of the way through the alphabet. I did consider at one stage having some cards printed with 'RENT-A-Skeptic' printed on them (with the emphasis on 'RENT'). I considered adopting the slogan, 'You name it, I'll doubt it,' but I thought that some people might think I was being serious. It is largely thanks to our rarity value that informed skeptics appear as frequently as we do on the media. Thus, when I arrived to present a lecture on my own research to the SPR, I was greeted at the door by a distinguished SPR member with the somewhat sarcastic comment, 'I thought you were dead. I hadn't seen you on TV for three days.'

A problem which is faced by the skeptic but not by the believer is what one might call 'tokenism.' By this I mean the tendency of some programmes to feature a token skeptic, for whatever reason. This can take a variety of forms. On occasions I have taken part in programmes which were essentially simply PR jobs for various psychics with little attempt at any critical evaluation of the claims presented. Such programmes are dominated by the psychics, who are given star billing up on the stage, with the help of a supportive presenter. The opportunity to express any doubts from one's seat in the audience can be very limited. I have also taken part in programmes where there was simply no need for an informed skeptic as the psychic claimant being featured was clearly deluded. I do not see it as my role to ridicule such individuals, whose claims are unlikely to impress even the most fervent believer. Such programmes leave a bad taste in one's mouth. The subtlest form of tokenism is that where every effort is made to give the appearance of an unbiased presentation but where there is in fact definite bias. *The Paranormal World of Paul McKenna* is a case in point which I will deal with more fully later.

Skeptics and believers often come across as stereotypes on TV programmes. This is partly because the stereotypes are true to some extent. If I am doing a discussion programme on astrology and I learn that I will be sitting next to Professor X, an astronomer from the University of Y, I can be fairly

sure that he will be on my side. If I find a place card with a single, often exotic, name, such as Zelda or Darius, I can guess which side they will be on. Their flowing robes and crystal amulets are also something of a give-away.

Depending upon the presenter, skeptics may find themselves cast in the positive role of 'the voice of reason' (with the totally unjustified implication that anyone who believes in the paranormal must be a little bit crazy). On the other side of the coin, the skeptic can be presented as cold, scientific and uncaring. Believers in the paranormal are often embodiments of New Age thinking. They are emotional, intuitive and warm. They really are (usually) very nice people. Once again, there is some truth in these stereotypes although like all stereotypes they can be overplayed. The belief system of the true believer is usually rather more positive than that of the skeptic. The basic message is that we all have amazing powers and that the soul will survive bodily death. In contrast, the standard skeptical position is that we are all made of essentially the same stuff as everything else in the universe and death is simply the point at which biochemistry turns into chemistry. In terms of emotional appeal, there is simply no contest. I sometimes find myself in the uncomfortable position of having to argue against the possibility of life after death to an audience containing many individuals who sincerely believe that they are still in touch with their dearly departed. While this is not a position that I enjoy, the bottom line is that science is about truth not happiness – and it seems quite likely to me that our true position in the scheme of things is not necessarily one with which we would be very happy.

Although the world view of the believer is in general more emotionally appealing than that of the skeptic, there are important exceptions. For example, one might assume that most people would prefer a world which did not include alien abductions or poltergeists. In my experience, however, it is often the case that claimants in such cases are very unwilling to consider even the possibility that their experiences might have a non-paranormal explanation. There are several possible reasons for this, but one fairly important one is probably that such individuals are likely to feel special as a result of their experience, even though they may genuinely be frightened by it. After all, they would not have got to appear on television without it.

The presenter of the programme is usually the most important factor in determining which side appears to have the best arguments. Often the presenter will remain resolutely neutral, but not always so. If the presenter is rather skeptical, one's job is made very easy. If the presenter is a true believer, the skeptic will have a hard time. I remember on one occasion doing a programme on UFOs and being told just before I went on that the



presenter was a keen UFO spotter. Predictably, I had a hard time.

If a presenter is biased towards the believers' position, there are various ways in which the skeptics' position can be undermined. For example, the believer has one very real advantage over the skeptic which the presenter might emphasise in various ways, and it is this. Just because someone believes that some paranormal claims are true does not mean that they therefore accept all paranormal claims. The believer can therefore often be presented as someone who judiciously weighs the evidence in each individual case before coming to a conclusion. I have yet to meet a believer who did not claim that they themselves approached each case critically. They are hardly going to say 'Me, I just believe anything I'm told,' are they? The skeptic, on the other hand, starts from the working assumption that all cases have

n o n - p a r a n o r m a l explanations. It is not hard to see how this can be presented as pure prejudice on the part of the skeptic. Partly to counter this, I will usually try to emphasise the fact that most responsible parapsychologists will readily admit that most claims are best explained in prosaic terms. The cases where disagreement arises between skeptic and believer are therefore a

very small minority. The difference between the two sides is that the believer accepts those few cases as proof of the existence of paranormal forces, whereas the skeptic believes that there will inevitably be some cases where human ingenuity is not capable of figuring out the true explanation.

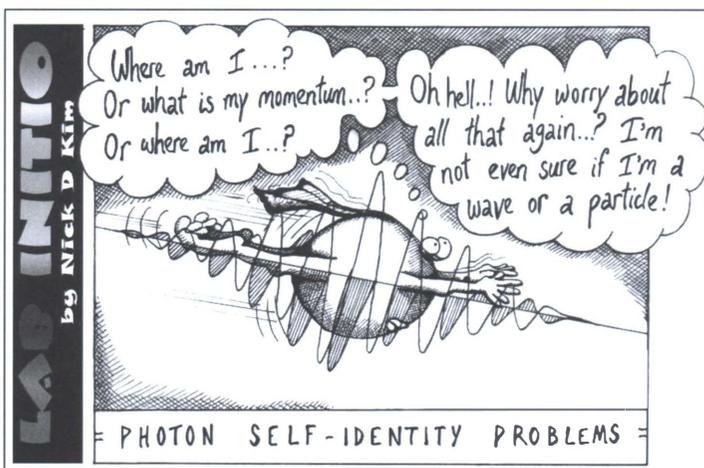
Another way in which an audience can be made to feel hostility towards a skeptic is by setting the skeptic up as some arrogant know-it-all who is dismissing experiences that they have never themselves had. The point here is that informed skeptics are rarely rejecting the alleged paranormal experience itself, they are questioning the interpretation of that experience. Just because a person who has had a near-death experience genuinely feels that it was the most real and profound experience of their lives does not prove that their soul really left their body as they believe. Psychologists are all too familiar with cases of delusional belief systems of the most bizarre kinds that are all held with absolute conviction.

Another problem faced by the skeptic is the reliance in such programmes on numerous anecdotal accounts as opposed to any considered appraisal of well-controlled studies. The latter is clearly not going

to attract the same viewing figures as lurid personal accounts. I am often surprised at how weak the accounts presented on discussion programmes are, given that they have been selected from dozens of people telephoning the programmes in response to an appeal for suitable cases. When faced with such personal accounts, one has to simply assert that one cannot really comment on them as one has usually only just heard of them. In most instances, no proper investigation has been carried out by anyone. Sometimes, of course, one might be reminded of a similar claim which was properly investigated and accounted for. Many programmes will include a couple of cases which have been investigated and pronounced genuine, in which case one should try to do one's homework in advance, in order to find out if the case is really as strong as it appears. Often it is not.

A problem faced by both the skeptic and the believer is one that might be referred to as the 'with-friends-like-these' syndrome. There are times when I shudder to hear the comments of other skeptics featured in these programmes. There is no doubt that the strongest evidence in support of paranormal claims deserves to be

taken seriously and is not easily dismissed. It is all too rare for this type of evidence to be included in discussion programmes but when it does crop up, it does the skeptics' cause no good if some uniformed bigot simply rejects it on the grounds, say, that 'It's just not possible!' The other type of skeptic that I dread is the kind that has a blanket explanation for all paranormal claims, that is, all claimants are liars, all claimants are mad, all claimants are stupid. This is clearly not the case and such skeptics are merely demonstrating their own ignorance. Unfortunately, most skeptics are very uniformed regarding the paranormal. Another kind of skeptic that worries me is the type who will believe any non-paranormal account, no matter how far-fetched and unsupported by the evidence, rather than consider the possibility that paranormal forces might actually exist. I imagine that my feelings towards such skeptics are somewhat similar to those of the parapsychologist who receives the support of some audience member who asserts that they know that telepathy exists because that is how they communicate with Zog, the pan-dimensional being that lives in their fridge.



The Paranormal World of Paul McKenna. At least with live programmes one does not have to worry about the role of the editor. The way that a programme is edited can, potentially, completely distort what actually happened. I want to finish by giving several examples of biased presentation from the series *The Paranormal World of Paul McKenna*. My reason for focusing upon two programmes from this particular series is that I took part in both programmes and was disappointed, although not altogether surprised, by the final product.

The first of the two programmes in question to be broadcast dealt with telepathy. One of the demonstrations featured Albert Ignatenko from the Ukraine who demonstrated a so-called 'psychic punch.' The sequence of events as seen by the viewer at home began with the presenter, Paul McKenna, asking for a volunteer from the audience. From the raised arms, one individual was invited to take part. Mr McKenna explicitly asked the volunteer to confirm that he had not met Mr Ignatenko before that day, which he did. Mr Ignatenko moved the young man gently forwards and backwards in order, he claimed, to prepare him to receive his psychic energy. He then walked away, stopped, raised his arm and the volunteer fell back onto a mat.

This demonstration, on the surface, might look impressive to some. It appeared that a volunteer had been more or less randomly chosen from the audience and within a couple of minutes a complete stranger had used some kind of influence, perhaps psychic, in order to make this healthy young man fall over. For those of us in the studio for the rehearsals, however, a rather different version of events was apparent. The same young man had taken part in the rehearsals earlier in the day. He had spent an unknown amount of time with Mr Ignatenko during the day. For all we know, he may have been selected for his high level of suggestibility, in much the same way that stage hypnotists select volunteers. To ask for a volunteer from the audience when you know in advance who is going to be picked and to then get that person to confirm that they had not met the psychic before that day might reasonably be seen as intentionally trying to create a false impression in one's audience without actually lying. It may also be worth noting that Paul McKenna's main claim to fame in the UK is as the country's most popular stage hypnotist.

Also in this programme, Pam Smart from Lancashire and her dog, JT, were featured. JT, it was claimed, knows when Pam is about to return home even if no-one else in the house knows and the time is randomly determined. JT moves to the window at the time when Pam sets out on her return journey and sits and waits for her. A film clip featuring JT

contained several errors, all of which resulted in the claim's appearing to be more impressive than it actually is. I am grateful to Richard Wiseman for drawing these to my attention. The programme showed a clip from a test of JT carried out by Austrian TV, in which JT is clearly seen moving to the window seconds after Pam sets off for home. As Richard pointed out on the programme, it is important to see the rest of the film to know how many times the dog goes to the window anyway. When Richard raised this issue during rehearsals he was informed by Paul McKenna, perhaps relaying information from the production team, that the rest of the tape had been viewed by the programme-makers and that the dog had not moved to the window previously. In fact, no-one had seen the footage.

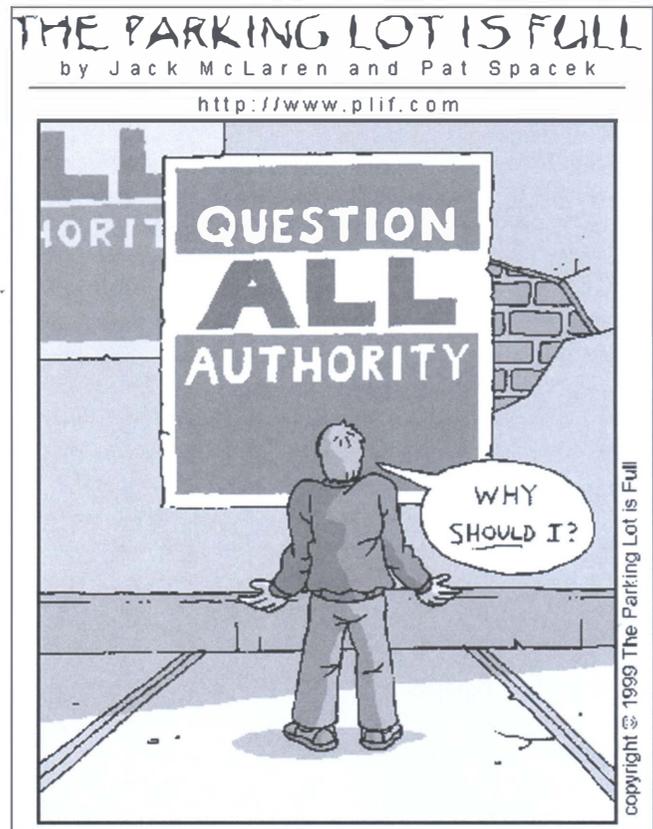
Furthermore, the voice-over said the dog is always correct. It isn't. The voice-over also said that Pam was six miles away from the dog at the time of the test. In fact, she was down the road, between half and three-quarters of a mile away. This caused Pam considerable embarrassment when facing her neighbours all of whom recognised the locations featured. The voice-over also incorrectly stated that she had been away for five hours. Richard's source for this information was Pam Smart herself, who was fed up with the way the claim was portrayed. Since that programme, Richard and his colleagues have tested JT in a controlled manner – and found no evidence for canine paranormal powers (*Wiseman, Smith, & Milton, 1998*).

The other programme that I featured in dealt with psychic detectives. The programme included pieces about Dorothy Allison, the New Jersey psychic, and the British psychic Nella Jones, famous for her apparent accuracy in coming up with information relating to the so-called Yorkshire Ripper, Peter Sutcliffe. All of my specific criticisms of Dorothy Allison's claims were edited out. The criticisms were generally in terms of the need to look not only at the apparent hits of the psychic detectives but also at their failure rate if one is to stand any chance of reliably assessing their true level of performance. I had made similar points against Nella Jones when we both appeared on the chat programme *Esther*. I pointed out that she had claimed that Peter Sutcliffe could and did pass himself off as a woman. She simply denied this, attributing these claims to the late Doris Stokes, another British psychic. I was somewhat wrong-footed by this — I seem to remember a member of the audience shouting 'Get your facts right!' — although, with presenter Esther Rantzen's help, we did finally get Nella to admit that she had only ever drawn the Yorkshire Ripper as clean-shaven. In fact, he had a full beard throughout the period of the murders (which would make passing himself off as

a woman slightly problematic!). Subsequently, with Mike Hutchinson's help, I was able to track down the actual piece in *Psychic News*, where Nella had indeed made the claim she later denied. I had the piece with me when I went along for the McKenna programme and I asked the programme-makers if they would let me confront her with it. I thought it would make good television. They didn't. The final version of the programme was basically nothing more than good uncritical PR for Nella.

I was also in the studio during the rehearsals for the programme on psychokinesis. This included one demonstration in which the audience was asked to use their combined psychic ability in order to influence a random event generator which would determine how two computer-scrambled pictures would unscramble. The final outcome would be either a picture of a tiger or an astronaut. Given that there was a 50:50 chance of either outcome, this was clearly not going to say much one way or the other regarding the audience's PK ability. The audience chose to concentrate on trying to make the astronaut appear, but after a couple of minutes the picture of the tiger appeared. Amazingly, it was decided to simply have another go! On this occasion, according to my recollection, the astronaut appeared fairly quickly. To no-one's great surprise, the viewers at home only got to see the successful outcome. However, it appears that some clever editing was used to combine the start of the first trial with the end of the second. The overall impression is that the audience had managed to use their combined will-power to produce the desired outcome even though it initially appeared to be going in the wrong direction.

I hope by now I have given enough examples to illustrate the bias in this particular series. In addition to all these specific examples, as so often happens, the tests carried out on psychic claimants were generally poorly controlled and extremely limited in terms of the conclusions that could be drawn from them. It is for reasons such as these that skeptics are often cautious in accepting at face value presentations on television. TV producers have to be concerned about viewing figures and therefore are often more concerned with entertainment value than careful critical analysis. There is a general consensus amongst programme makers that I have met that pro-paranormal programmes are more entertaining than skeptical programmes. I am not sure that they are



right, but they are the ones who decide what kind of programmes get made. I think that moderate researchers on both sides of the debate would welcome programmes that dealt with strong evidence for the paranormal with the seriousness that it deserves. But given the overriding importance of viewing figures, I don't think that this will happen very often.

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Philosopher's Corner

Julian Baggini



ONE OF THE great euphemisms of our age is being 'economical with the truth'. The fact that the coiner of the phrase, Sir Robert Armstrong, makes clear that this entails 'a misleading impression, not a lie,' is seen by most as mere sophistry. Whichever way you put it, truth is injured.

But I recently found Armstrong's fine distinctions very attractive. This was brought on by an attentive reader of *The Skeptic*, who attributes to me the view that 'you can put a causal hypothesis to the test by collecting correlational data'. (Susan Blackmore, in Letters, *The Skeptic*, 13.2) Moi? Surely not? Yet referring back to the offending column, I find I did indeed say we conducted a poll in *The Philosophers' Magazine* on people's beliefs to test the hypothesis that a training in philosophy fostered a more skeptical outlook. And it is also true that at best the data collected showed a correlation between the length of time people studied philosophy and their general level of skepticism.

So am I guilty as charged? It would be embarrassing to confess I were, since Dr Blackmore, the writer of the accusing letter, points out that the mistake is 'common enough among first-year students but one that surely should not appear in the pages of *The Skeptic*.' Ouch.

At this point I am very much tempted to employ the Armstrong defence and claim that I was neither wrong nor lying, merely being a bit economical with the truth. It was just a short column, there was not enough time to give full details, there was a need to simplify and so on. But it's no good. I had simply overstated my case and claimed more than the evidence supported. It's a fair cop.

While I would like to take some credit for my honesty and willingness to admit a mistake, that too would be a bit economical with the truth. After all, the first draft of this column was a feeble attempt to defend what I wrote. It was only when a colleague pointed out that my defence was in itself indefensible, in an email message that was an endless scroll of criticisms, that I had to admit it was no good.

What's more, admitting a mistake on a specific matter is not all that difficult. It hardly strikes at the heart of my worldview. I actually agree with my critic but had just been sloppy, not properly applying standards of good evidence I am only too willing to accept.

What is much harder to do is to admit one was wrong about something more substantial, something

one considers to be more of a core belief. If sufficient evidence were produced, would I be prepared to admit the existence of god, for example? Could I ever be converted to the opinion that sex before marriage is immoral, or that egoism is the best moral principle? More fundamentally, would I be prepared to admit that my beliefs about the appropriate foundations of belief are wrong?

These are difficult questions to answer honestly. Most of us do not change our minds about the big things very often, if at all. Skeptics, like Christians, socialists and Arsenal supporters, tend to get dyed-in-the-wool after a while. Any belief, if held long enough, exerts more than a rational pull. It gets buried deep in your psyche and it stays there by emotional as well as rational means.

Perhaps I'm particularly weak in this way, but see if this experience doesn't tally with some of yours. I'm a complementary medicine skeptic. That doesn't mean that I don't believe some such remedies work. I believe there is good evidence that acupuncture can relieve pain, for example. But I cannot abide the way in which so many people seem willing to, quite literally, swallow alternative remedies without any evidence for their efficacy. Even worse is the buying into of the mumbo-jumbo that goes along with them. If a needle in my foot can make my back ache less, stick it in. But please don't tell me it's because my liver is angry or that my chi is getting blocked.

The problem is, there's a tension between my official position and what I feel. I find so much of what is said and written about alternative medicine appalling that I can't discuss it without a knot forming in my stomach. Yes, I know that some of it probably does work and that we should be led by evidence, not a wholesale rejection or acceptance of the entire stock of complementary therapies. But on an emotional level my objectivity goes. I don't want to be open-minded. I want it all to go away because I'm sure most of it is rubbish at it is too much effort to sift the sense from the nonsense.

I don't approve of this attitude of mine at all. But I suspect I am not alone in having a constant battle between my mind's attempts at remaining open and my emotional desire to shut it. Fighting this battle is difficult for two reasons. First, emotions run deep and are strong. Second, reason is weak. I'm constantly spotting first-grader mistakes at least as bad as mine being made by people who should know better. Balancing the two requires a constant effort. Sometimes, perhaps even most of the time, it's just too much effort.



Rhyme and Reason

Steve Donnelly

I THINK my front doorbell is in communication with dead people. About three weeks ago, I became aware that when I was in the back part of my house listening to music it was very difficult to hear the front door bell, the chimes for which are close to the front door. Rather than install a second set of chimes in the back of the house by means of wires connected under the floorboards or around the walls, I decided to take the easy way out and use modern wireless technology.

I purchased a two-component system consisting of a low-power radio transmitter that simply connects to the existing chimes and a little unit that makes an electronically generated door-bell sound on receipt of a radio signal which is transmitted when the front door bell is rung. The receiver can be placed in a convenient location anywhere in the house (or its immediate environs). The system took only about five minutes to install, and worked extremely well, even overcoming Pink Floyd at fair-to-middling volume in the back of the house.

The sonorous electronic tone was also clearly audible when it sounded at 12:25 am — waking us up and setting hearts racing, as callers at this hour are rare and might be expected to be harbingers of some kind of disaster. However, inspection revealed no-one was at (or near) the front door — and the same absence of caller also was also evident when the tone woke me up again a few hours later at 6:15 am. A consultation with the little user manual supplied with the unit revealed that the device could be triggered if a close neighbour had either a door bell system or components of a wireless burglar alarm manufactured by the same company and operating on the same radio frequency. For just such an eventuality, each component of my wireless bell system was equipped with an identical set of 8 tiny switches, enabling the system to operate on one of 256 different frequencies. One week and seven randomly selected frequencies later, severe sleep lack in the Donnelly household caused by invisible callers at antisocial hours made it necessary to switch off the device between 11:30 pm and 7 am.

The inadvertent triggering of my system by a single neighbour's system operating at the same single frequency is perhaps credible — but seven different frequencies? I don't think so! There clearly has to be

another answer and, as no scientific or technological explanation immediately comes to mind, the solution is clearly in the realm of the paranormal.

In Northern Ireland, where I was brought up, the period around Halloween was one when children got up to various types of mischief, one of the most popular of which was the sophisticated entertainment of knocking on people's doors and running away. We had this off to a fine art in one street of terraced houses where, by tying cotton thread to the knockers of ten neighbouring doors, it was possible to knock them all simultaneously from across the street. The entertainment value of seeing (from behind a convenient wall) ten puzzled (and then angry) householders opening their front doors together was sufficient to warrant frequent

repetition. I realise now that this practice has come back to haunt me across space and time. Clearly, a disgruntled former resident of Warrenpoint, Co. Down, now living in a more elevated location, is manipulating electromagnetic fields to exact revenge for my thoughtless acts of yesteryear — and is probably chortling up an aetherial sleeve each time I dash to the front door.

What utter tosh, I can hear you saying! There is no evidence WHATSOEVER that discarnate entities can communicate using electromagnetic signals. But to those of

you who have been reading paranormal literature for many years I would simply reply 'Raudive Voices'. Back in 1959, Swedish film producer and bird watcher Friedrich Jürgenson, who was using an early portable tape-recorder to monitor bird song, noticed that there appeared to be garbled fragments of human speech recorded on his tapes — even on samples recorded in remote areas where no other people were present. Puzzled by this effect, he spent the next few years recording a large number of such signals. The voices he recorded were usually distorted and difficult to understand; however, by listening to them carefully, Jürgenson found that the voices were comprehensible despite often speaking in different languages, sometimes with incorrect grammatical structures and with the recordings frequently appearing to be compressed or stretched in some way. More surprisingly, he found that the voices seemed able to respond to his comments, to



"The paranormal bell ringer."

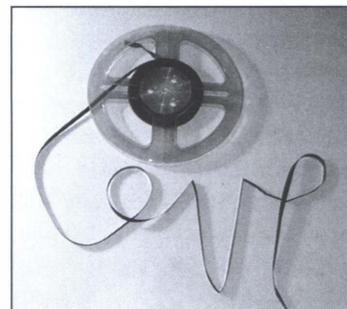
the extent that he began to ask questions and then seek answers in his tape recordings. In Jürgenson's opinion, the tape recorder was providing him with a means of communicating with the dead.

Inspired by Jürgenson's work, the German parapsychologist Hans Bender and the Latvian psychologist Konstantin Raudive began detailed investigations of the phenomenon in the 1960s. The 1971 publication of Raudive's book *Breakthrough: An Amazing Experiment in Electronic Communication with the Dead* led to the phenomenon's being given his name – although the more descriptive title 'Electronic Voice Phenomenon' or 'EVP' is now more commonly used.

The internet appears to have given a new lease of life to EVP – a search on 'electronic voice phenomenon' using the search engine Google yielded more than 44,000 hits, with many of the web sites providing short audio clips of experiments (or perhaps séances is a better word) carried out in a variety of locations including haunted houses and graveyards. The clips that I downloaded were all similar in that they were two to five seconds in length and consisted primarily of white noise – the hissing sound you hear from a radio tuned between stations. The white noise was slightly modulated, so that with concentration, and some knowledge of the words you were meant to hear, it was possible sometimes to hear a short phrase. Clearly, this type of communication is difficult for inhabitants of the other side, although one would imagine that with luminaries such as Marconi and Edison (and even Konstantin Raudive himself) now in their midst, a decent transmitter would not be an impossible feat. Despite thirty years of research, the precise mechanism used in EVP is not entirely clear. Although weak EVP signals can be obtained simply using a microphone and a tape-recorder, many practitioners deliberately place a source of white noise close to the microphone as this gives a better quality of EVP recording than is otherwise obtained. A radio tuned between stations is commonly used as this noise source so that there are a number of possible mechanisms by which the EVP signal could be recorded. Are the spirits modifying the signal received by radio set itself, the sound waves emitted from the radio set, the signal flowing in the recording head of the tape recorder or the magnetic particles of the tape directly? As with many areas of cutting-edge research the precise answer is not entirely clear.

Now, as skeptics you might be inclined to dismiss all of the above paranormal explanations. You might query whether it is possible ever really to tune 'between' radio stations and point out that a passing aeroplane or even a meteorite can fleetingly reflect radio waves from over the horizon giving rise to a burst of signal from an FM station in Hungary or

Tunisia. Such signals may also be distorted in a variety of ways. Perhaps you will also suggest that other faint sounds (such as those from the motor driving the tape reels) will be recorded along with the sound from the radio set, or that the tape recorder itself may be able, in



some circumstances to rectify radio signals and record snatches of the sound signals that they carry. If you have some experience of reel-to-reel tape recording, you might even suggest that the phenomenon of print-through could give rise to faint snatches of sound, for instance from the questions also recorded on the tape, being 'imprinted' onto other parts of the tape – particularly if the tapes are kept for some time before being analysed. Finally, if you are of a psychological bent you might even claim that the ears and brain constitute a powerful mechanism for turning random sounds into meaningful syllables and even cite scientific research that has been carried out in this area.

But this is a very closed-minded approach to take given that thousands of enthusiastic amateur researchers all over the world have been recording faint hissing sounds on tape for more than a quarter century and with repeated listening through headphones have managed to train their ears to the sensitivity necessary to perceive the EVP signals clearly. Indeed, one account of the phenomenon reports that, 'A tape recording which contains a paranormal communication or voice increases in tonal quality with each successive re-recording. It also increases in quality with each successive playback.' These people are certain that the voices they hear are of paranormal origin. How could so many people, technologically competent enough to operate tape recorders and to tune their radios between stations, possibly all be wrong? And even supposing that many of them have recorded snatches of signal that have mundane explanations, that still leaves hundreds of thousands of unexplained hissy, meaningless phrases that must clearly be of paranormal origin.

So my course of action is clear, the phantom bell-ringer of Blackrod Drive is going to be given the chance to communicate with me in a fuller and more meaningful manner. As soon as I get some time, I shall build a little unit which will switch on a tape recorder placed behind my front door each time my electronic bell device is triggered. The sounds recorded will undoubtedly sound to untrained ears like the howling of the wind, or the rustling of the trees in my front garden. But I know that, when I train my ears and improve my recording by repeated playback of my tape (and by imbibing a few glasses of Bushmills whiskey) I will hear a clear Co Down voice berating me for my mischief of thirty years ago.

Reviews



Spaced out

God's Equation: Einstein, Relativity and the Expanding Universe by Amir Aczel
Piatkus, £16.99, ISBN 074992083

In Amir Aczel's absorbing book, Einstein's theory of general relativity gets the 'Science with a human touch' treatment. Included with the scientific ideas is a lot of entertaining background about the people who have contributed to debating these ideas over the centuries.

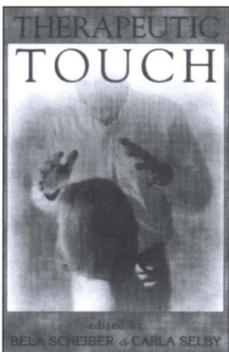
Much of the book deals with the life of Albert Einstein, with flashbacks to other physicists and mathematicians upon whose work relativity theory builds. The story is compelling, and readable enough to lull one into a false sense of security before the equations start to creep in. Refreshingly, Aczel is objective about the physicist, and concentrates on his science and the events of his life rather than joining the popular 'Einstein: God or Git?' debate.

Aczel describes the experiments that led to Einstein's theory being accepted, and the more recent discovery that the universe is expanding at an ever-increasing rate. A constant that Einstein removed from one of his equations has been reinstated to explain the finding, and this constant may tell us about the fate of the Universe. This is leavened by historical and biographical interludes (and a few somewhat irrelevant photographs of cosmologists with telescopes and reassuring smiles). Even so, explaining relativity to the layman must be well-nigh impossible, and despite Aczel's valiant efforts this is not an easy piece of bedtime reading. You have been warned. However, the science is so fascinating as to be well worth the battle.

Louise Johnson

HANDS OFF

Therapeutic Touch by Bela Scheiber and Carla Selby (Editors)
Prometheus Books, \$26, ISBN 1573928046



Paranormal and pseudoscientific ideas are adept at creeping in under the radar and establishing themselves in the public mind for years, or even decades before coming under sustained and rigorous challenge.

Such is the case with Therapeutic Touch (or TT), a hands-off rather than hands-on therapy developed in the 1960s and 70s by Dolores Krieger and

Doris van Gelder Kunz. Martha E. Rogers followed with a model of the 'energy fields' supposedly sensed and modulated by TT healers. In 1988 the Colorado-based Rocky Mountain Skeptics became aware of the stealthy intrusion of TT into mainstream nursing practice and set about forcing a public confrontation with its adherents.

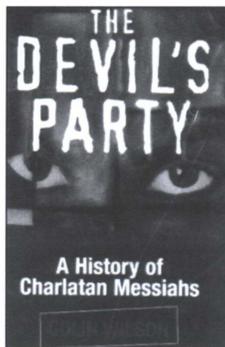
This fascinating collection of papers is the outcome of that battle. It gives a concise account of the social and scientific history of TT and as a classic case study, with a comprehensive bibliography at the end of each chapter. It should be an invaluable guide to all skeptics for how to ensure that all such 'new' therapies are subjected to objective scientific evaluation before they are adopted by the medical and nursing professions.

Papers by proponents as well as critics of TT are included and in an ideal world both sides would buy this book and see it as a basis for real dialogue about how we know whether or not a therapy works. The world being less than ideal, make sure you lend your copy to at least one true believer.

Mike Hutton

CULT OF PERSONALITY

The Devil's Party: A History of Charlatan Messiahs
by Colin Wilson
Virgin, £17.99, ISBN 852278439



We all know Colin Wilson as an accomplished if non-sceptical author on such diverse subjects as archaeology, astronomy, cosmology, Egyptology, crime and the paranormal.

Perhaps his best-known work is 'The Occult', published in 1971. He must be over 80 by now, but still going strong, as evidenced by this latest book, in which he gives us history and analysis of over 100 cult leaders, both male and female, and describes the peculiar character structure which seems to define so many of them.

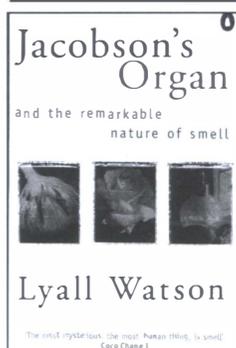
He does not hesitate to include Freud in his list along with Charles Manson, David Koresh, and the 'Reverend' Jim Jones, names we recognise from recent times, as well as instances as early as 1666 of false messiahs. While I cannot go along with his facile acceptance of the healing powers attributed to some of his subjects, I found the book totally fascinating, especially the disclosure of the repeating occurrence of patterns of sexual deviation from what we consider the norm.

This book is full of good and bad ideas for anyone who is thinking of starting their own religion. Highly recommended.

Frank Chambers

INTO THE ODORNET

Jacobson's Organ by Lyall Watson
Allen Lane, £12.99, ISBN 0713993472



I was not familiar with Lyall Watson's work before reading this, knowing of him only as a writer from the outer fringes of mainstream science but I found *Jacobson's Organ* both entertaining and thought provoking.

The title refers to two tiny pits found on either side of the nasal septum in almost all

humans and a number of other mammals, which may enhance our sense of smell. Starting with the idea that 'the air is full of messages and we are all subscribers to the Odornet', Watson discusses the importance of smell, how we often underestimate or ignore it and plays with the idea that there may be another 'sense within a sense' that connects with our unconscious or imaginative selves. Speculative and unproven no doubt, but an idea that also interested writers like Nietzsche and Rousseau; and Watson is usually careful to distinguish between published evidence (there is an extensive bibliography) and fanciful idea-spinning.

Much of the book is devoted to the concept of smell as communication, via the production and detection of pheromones and how this might subtly, or sometimes not so subtly modulate human and animal behaviour, particularly reproductive behaviour. I was particularly taken with the suggestion that when men buy their wives or lovers perfume containing androgenic pheromones the motive is the same as that of the male rabbit when he urinates on a female before copulating with her – to repel other males in the vicinity. Now there's a thought take with you when shopping for Christmas.

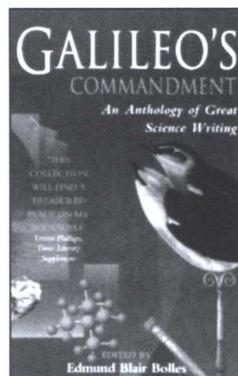
You would need only a basic scientific understanding to enjoy this book but there is plenty to tempt the reader to explore further.

Mike Hutton

WORTHY BUT DULL

Galileo's Commandment: An Anthology of Great Science Writing by Edmund Blair Bolles (Editor)
Abacus, £9.99, ISBN 0349112460

In Bertolt Brecht's play *The Life of Galileo*, the character Galileo says, 'Science knows only one commandment: contribute to science.' Hence the



title of this collection.

In the introduction, Bolles recalls 'the head of a research lab who worried that papers in modern science journals had become so abstract that they almost never gave readers any sense of an author who had wrestled with ideas.' The aim in this book is to show that science writing 'has something important to say; it says it by presenting readers with unique imaginations; and readers in turn are inspired to think in ways that, by themselves, they never could.' So Bolles has 'focused on straight science writing, not philosophical writing about science.'

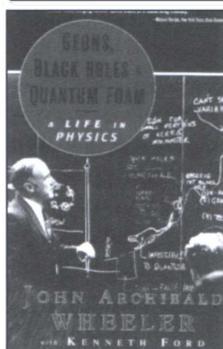
I can't really back up the claim that these tiny snippets are of 'great' writing. In fact, by and large, I found the essays reprinted here to be far from inspiring. As for content, there were few ideas that would be unfamiliar to anyone already interested in science. Many of the OK names are here – Galileo, Kepler, Boyle, Newton, Lavoisier, Darwin, Helmholtz, Einstein, Pavlov, Eddington, Rutherford, Hoyle, Heisenberg, Asimov, Sagan, Popper. But there are oddities. Stephen Jay Gould is here, but not Richard Dawkins. We have Chomsky's case against B F Skinner, but nothing from Skinner himself. Psychology is in fact poorly represented. Bolles includes an essay by himself on the subject of (of all things) Gestalt Psychology. On the whole, disappointingly patchy.

Lewis Jones

REAL PHYSICS

Geons, Black Holes and Quantum Foam: A Life in Physics

by John Archibald Wheeler
Norton, £10.95, ISBN 0393319911



The name of John Wheeler is one to conjure with in the world of theoretical physics. His co-authored book *Gravitation, with Misner and Thorne*, is a classic exposition of General Relativity, and he is known for his cogent insights into the interpretation of quantum theory. He has encountered more than his fair share of other physics greats – Bohr, Einstein, Schrödinger, Pauli, Feynman (to whom he was PhD supervisor) to name but a few – and in this wonderful autobiography he shares many memories of his life in physics.

He also describes some of his speculations over the years. Wheeler is perhaps best known for his wilder notions – particularly those pertaining to the

interplay of quantum theory, information and cosmology – and for his occasionally surreal, quasi-theological writing style. A valuable feature of this book is that it explodes the myth, so often fostered by fringe thinkers ignored by orthodoxy, that scientists are afraid of novel or challenging ideas; that PhD students are awarded nice shiny blindfolds along with their diplomas. Wheeler is a spectacular counterexample to such whinnying: indeed, he is fond of noting that his colleagues have often thought him crazy. However, Wheeler has never lost sight of the difference between meaningful and empty speculation, or the rules of evidence and argument. His kind of craziness is more than welcome in science.

From the viewpoint of skepticism, Wheeler is best known for his 1969 objection to the admission of parapsychology to the AAAS. The field had failed, he noted, to produce ‘a single battle-tested result’. What he particularly objected to was the way in which some parapsychologists had attempted to appropriate quantum theory to legitimise their case for psychic phenomena. Wheeler doesn’t attach much significance to it all; it gets about a page out of 350. Not surprising, as there’s real physics to write about.

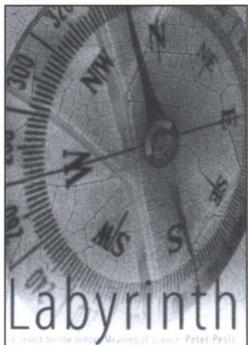
Robin Allen

SCIENCE AND SPECULATION

Labyrinth: A Search For The Hidden Meaning Of Science

by Peter Pesic

MIT Press, £14.50, ISBN 0262161907



The general theme of the book is that nature has hidden secrets and mysteries, something deeply hidden. Scientists have been struggling to find that hidden code.

To illustrate this, the author tells us the stories of the lives of several seekers, from both the far and the near past, including Einstein. One story is about

trying to understand the phenomenon of magnetism, another about developing encryption codes. How scientists erred, how they tried several approaches, how they mixed it up with their personal philosophical, religious and magical beliefs. All this is embedded in anecdotal story-telling as well as accurate history. This hybrid approach makes the book sometimes boring, sometimes interesting and entertaining and sometimes even fascinating. In my opinion he sometimes goes a bit far, even interpreting Einstein’s thoughts ‘who achieved his greatest insights through relying on his inner convictions about the character of God’s Law’ and Einstein said ‘God at least must know the exact positions and velocities of each particle, even if we can not’.

Interestingly, but not very convincing to me, he then makes the link between deciphering a coded

message and trying to unravel the code that is hidden in nature. Quantum physics discloses an endless source of random numbers so it can be compared to an unbreakable code. ‘Nature’s cipher is unbreakable’ so nature will remain enigmatic.

‘The hiddenness of Nature insures that its depths will never be exhausted’. If you like to mix science with religion, speculation and anecdote, you will love this book.

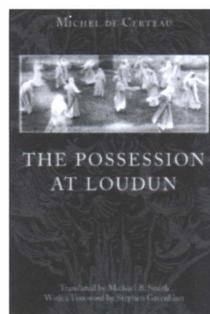
Willem Betz

UNDER THE SKIN

The Possession at Loudun

by Michel Certeau

University of Chicago Press, \$40, ISBN 0226100359



Before reading this book I wasn’t acquainted with the apparently well-known historical case of demonic possession of nuns in France during the 1630s, and unfortunately this wasn’t the kind of book to particularly kindle my interest in it.

The supposed possession at Loudun could well be an interesting subject to read about, but Certeau’s coverage of it probably won’t appeal to anyone other than aficionados of this episode in history.

The only strength of the book lies in looking at the circumstances surrounding the possession from a social and psychological perspective. For a skeptic the first place to look for explanations of demonic possession would surely not be the supernatural, and so Certeau’s analysis is useful in that respect. However, the problem is that his writing is rather laborious in the sense that it’s very ‘intellectual’ to the point of exhaustion, and also somewhat pretentious.

A while back I read Randi’s *The Mask of Nostradamus* which was a very good analysis of some of Nostradamus’ predictions set in the context of the time and society he lived in. Certeau’s book is kind of similar in that respect but lacks the readability and clarity of that delivered by Randi.

Unless you have a deep interest in this period in history and can cope with the heavy French intellectual style then I’d suggest you pass over this book.

Dene Bebbington

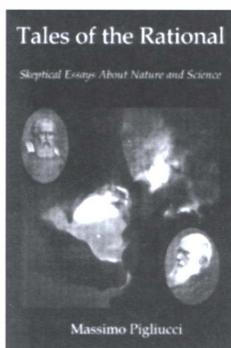
SCIENCE MEETS RELIGION

Tales of the Rational : Skeptical Essays About Nature and Science

by Massimo Pigliucci

Freethought Press, \$17, ISBN 1887392114

This book is a collection of essays upon the challenge posed by science to religion (and vice versa) and the role of scepticism in evaluating these competing worldviews.



The essays are organised under four general headings. 'Philosophical Tales' contains definitions of the various 'isms' within the book and culminates in an exposition of the hypothetical-deductive method as the basis for scientific enquiry. 'Tales of Science and Religion' addresses the alleged social and personal

benefits of religion, the falsifiability of theological propositions and the limits of scepticism. 'Creation Tales' addresses the politically sensitive issue of whether democracy has a role in determining the content of academic courses and non-theistic challenges to Darwinism. 'Tales of the Personal' contains entertaining and educational encounters between the author and leading Creationists, a review of what science can legitimately say about the origins of life – both terrestrial and extraterrestrial – and the uses and abuses of Chaos Theory.

Overall, *Tales of the Rational* is an excellent collection of essays written by an author who has decided, correctly, that Creationism and other forms of pseudoscience must be confronted by coherent and clearly stated arguments informed by the tradition of critical analysis. The advantage of such a tradition over the theistic worldview is that its conclusions are always tentative and it is tolerant of novel ideas. But it is precisely this contingency and tolerance that the theist sees as disadvantageous. Pigliucci's work and activism are powerful weapons in this ongoing conflict.

Dave Unsworth

CONNECTIONS

The Arcadian Cipher: The quest to crack the code of Christianity's greatest secret by Peter Blake and Paul S Blezard

Sidgwick and Jackson, £18.99, ISBN 0283063602

One of the authors is a fine art dealer and art historian with a special interest for the work of the famous French 17th century painter Poussin. When analysing Poussin's paintings, he discovered in three of them that by drawing lines between some points the result was each time a (skewed) pentagram. Furthermore, the authors write, the colours of the vestments of the depicted biblical persons (white, red or blue) contain a symbolic message, the same that the ancient Egyptians used for their gods.

Where did the painter learn this Egyptian colour code? In Renaissance Italy there were already experts on Egyptian and Babylonian civilisation and great secret Hermetic knowledge was collected by the lords of Florence. This is a bit hard to swallow since the deciphering of hieroglyphs and cuneiform writing happened centuries later. All this brings us to the

region of Rennes-le-Chateau in France, where a local 19th century priest is supposed to have discovered a treasure of the Knights Templar.

It could have been a treasure of the Visigoths, or of escaped Cathar Perfecti. The shroud of Turin originates from the same region. Leonardo da Vinci, who was also in on the terrible secret, made it as an early experiment in photography. It is a picture of John The Baptist. You can clearly see that the head is not connected to the body. This is confirmed by radio carbon dating. Based on a very serious analysis of the Egyptian Book of the Dead, the Gilgamesh epic, the gospels, the hidden secrets of the Kabbalah, the secret knowledge of the Gnostics, and even the Koran, the authors develop a revolutionary hypothesis.

Jesus did not die on the cross. He fled to Southern France and secretly founded there a family with Mary Magdalen. This secret was known only to some initiates who passed it along for generations. Did you know that Pontius Pilatus and Herod also went to live there? Poussin, cardinal Richelieu and Leonardo da Vinci were in on the secret. They were afraid the secret would get lost and encoded it in paintings. When one copies the skewed pentagrams from the Poussin paintings onto a detailed map of France, the centres all indicate the same region.

An exploration by the author led to the discovery of two small caves that most certainly must have been the graves of Jesus and Mary. No remnants were found because they were removed by a Pope and are now hidden in the Vatican. They probably will deny this, but it explains where the money for the priest of Rennes-le-Chateau came from. He must have stumbled on the secret and the Vatican had to pay him off to keep him silent. On top of all that, the family of Nostradamus came from the same region. Hitler and the Thule society were also in on the secret and came searching there for the Grail. The message is also hidden in Wagner's opera Parsifal, at least for those who want to see it. Hidden messages in Greek, Germanic and even New Zealand mythologies confirm all this. If the authors could have shown more restraint in trying to connect almost anything, it could perhaps be taken more seriously.

Willem Betz

STUFF AND NONSENSE

We Faked the Ghosts of Borley Rectory by Louis Mayerling

Pen Press Publishers, £10, ISBN 1900796589

This mystifying and eye-opening book dealing with the alleged spectral happenings affecting the Rectory at Borley, on the Essex/Suffolk borders is ideal as ammunition for those skeptical about hauntings, yet it will surely prove to be one of the most popular works on the paranormal for decades.

It is mystifying because without a bibliography some of the claims cannot be substantiated. The

author, the illegitimate son of a Romanov, who was 'born quite early in life to a polyglot mother, in drink and during a thunderstorm in the back of a cab in September 1913, in Vienna', preferred to hide his identity when living in the Rectory and 'working' with the late Harry Price under the name 'George Carter', until he left and became 'Lee Lennox', a jazz pianist. Some of the answers he offers conflict with facts.

The most publicised aspect of the Borley Rectory case was that of the phantom nun, which legend has it was bricked up alive after trying to elope with a lay brother from a nearby monastery. He was hanged but she 'regularly walks across what was the garden, every 28th July'. But why does the monk not haunt?

According to Mayerling, the myth was created in 1900, when daughters of the incumbent, the Reverend Harry Bull, having imbibed too much of the potent home-made wine, believed that they saw the figure of the spectral sister. The site became known as the Nun's Walk, the comment from the author being, 'some do, some don't', and groups of optimistic sightseers would arrive annually hoping to see the ghost, 'but likely nun did'. Nevertheless, a servant girl on her way back home to Liston, was often genuinely witnessed, usually during the evening.

Other puzzles humourously explained include the numerous fires that were experienced in the property (other than the accidental one that destroyed the building in 1939), the bricked-up window in the sitting room, the mysterious ringing of the bells and the voice calling 'Don't, Carlos, don't'. Even the messages scribbled on the walls, such as 'Get lights, please help get', are accounted for by claiming that the Reverend Lionel Foyster, the incumbent at the time, was responsible, suffering as he was from the effects of parsnip wine, narcotics and severe depression.

Probably the chief character and instigator of phenomena in the household was Marianne Foyster, the wife of Lionel, who because of her unusual 'feminine desires', could be seen as the real poltergeist entity, if there is such a thing. She died in America in 1992 aged 91, leaving a son and daughter and four adopted children, one of whom, Vincent O'Neil, believes that Marianne Emily Rebecca Shaw Greenwood Foyster Fisher O'Neil helped scores of people, regardless of the ghosts that haunted her life'. The real message however is that the only ghosts she ever saw were those of old romances, 'which vanished at the slightest touch'.

Yet, somewhat conflicting with the overall aim of the book, the author claims that 'Borley Rectory and its church did in truth hold many smouldering secrets, known in the end only to Marianne and me... and in respect for those memories should not and never shall be brought to light'.

On one occasion Marianne was seen by a group from a nearby YWCA hostel who asked 'are you the nun?' Her answer rather reveals her flibberty attitude:

'I am the undead. Go away and tell the world that somewhere there is life.' But as to the standard of investigation by Price's selected team, one is quoted as saying, 'I done nuffink. I saw nuffink, but I did 'ear a click. Then I fought I 'eard another click.'

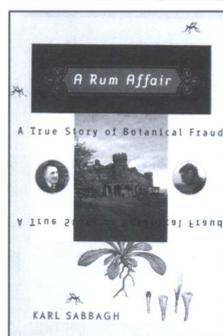
With some illustrations that may appear to be unconnected with Borley, the book could be seen to raise more questions than provide answers, yet it is a delightful work and will no doubt reactivate the debate about 'The Most Haunted House in England'.

Though the building has gone forever, its reputation and the suspicions regarding the respectability of Harry Price who, says Mayerling 'prefers fantasy to facts', must remain.

Andrew Green

DIRTY DOINGS

A Rum Affair: A True Story of Botanical Fraud by Karl Sabbagh
FSG, \$24, ISBN 0374252823



On the face of it, 'A True Story of Botanical Fraud' is not the most enticing prospect for those of us accustomed to reading about the ravings of mediums, or the thrills of alien abduction. It does offer a glimpse into the little-known world of pre-war Hebridean natural history, but this may still not greatly tempt the hard-boiled, urban skeptic.

The affair concerns the planting of plants, on the Island of Rum, followed by their 'discovery', by an eminent and curmudgeonly botanist. A semi-clandestine investigation led to scholarly reservations about his trustworthiness, but these never developed into a full-blown critique of his work, and the case had been discreetly buried for decades.

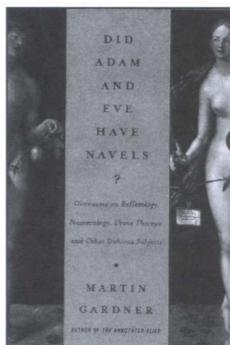
At one point, referring to some behind-the-scenes correspondence, Sabbagh writes: 'At this distance in time, and without the passion for natural history that motivated the participants in these events, I find Wynne-Edwards's letter a little melodramatic.' This looks like kettle-blackening from someone who has written an entire book about fraud among the flora, but there is a chapter on other cases of dubious science: a biofeedback scandal, a plant growth hormone fraud, and Himalayan fossil 'finds'.

Even though I'm no botanist, this was a diverting read, and there is much food for thought about how scientific institutions handle suspicions about researchers' credibility. For those who wonder about how scientists go about things, but may be put off by the amount of mathematics involved in fathoming the physical sciences, this vicarious field trip may be a useful option.

Paul Taylor

A CLASS ACT

Did Adam and Eve Have Navels? Discourses on Reflexology, Numerology, Urine Therapy, and Other Dubious Subjects by Martin Gardner
Norton, \$26.95, ISBN 0393049639



Gardner strikes again. This is a collection of his 'Notes of a Fringe Watcher' columns from *Skeptical Inquirer*, and it's wonderful stuff.

I was going to say: as Gardner gets older, he gets more grumpy and more willing to simply state that something is 'absurd' or 'stupid', if he thinks so. But then I glanced at some of his previous books, and realised that he's never really changed. He has a refreshingly low threshold for nonsense and double-talk—but he always has.

The spread of topics here is wide. Here's a sample: evolution, the Star of Bethlehem, Urine Therapy (a possible title for this chapter might have been 'Taking the Piss?'), Freudian theory, cannibalism, Carlos Castaneda, Heaven's Gate and the cult of Bo and Peep, the religious views of Stephen Jay Gould and Darwin, and Isaac Newton as alchemist and fundamentalist.

Whatever he's discussing, Gardner knows more about it than you and I could ever hope to, and you're dying to glimpse his famous filing system which must bulge horribly with sixty years' worth of whatever caught his eye and needed clipping and squirreling away.

The writing is always fair, whether analytic or dismissive: Gardner has the rare gift of balancing his swipes and deconstructions with a genuine compassion. He loves humanity, and he hates to see it swindled.

Like me, you probably avoid book reviews that gush and fawn. I don't mean to, but there's nothing about this book I dislike. I was moved by Gardner's erudition, straightforwardness and, above all, his irrepressible humour. Another classic from a unique mind.

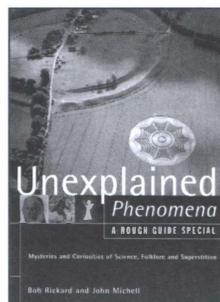
Toby Howard

ROUGHLY SPEAKING

Unexplained Phenomena: A Rough Guide Special
by Bob Rickard and John Michell
Rough Guides, £12.99, ISBN 1858285895

To produce this text, Bob Rickard and John Michell have combined and updated chapters from their earlier works *Phenomena: A Book of Wonders* (1977) and *Living Wonders* (1982).

Both authors have previously written extensively on anomalous phenomena, Bob Rickard being the founder of *Fortean Times*. All manner of strange phenomena are covered in this rough guide,



including sections on strange rains (like falls of fishes and frogs, and insect showers), images (statues that come to life and photographs of the Gods), monsters (the man-eating tree and the great American monster) and living wonders (talking cats and dogs and calculating horses).

Each section makes for an interesting read and is complemented by a variety of illustrations. While an attempt is certainly made to rationally explain each of the phenomena included in this text, it is clear that the onus is on providing the reader with entertainment, rather than attempting to improve their critical thinking skills.

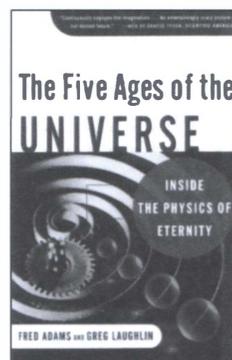
The general message running through the book is that not every instance of every phenomenon can be explained rationally, that we must accept that science does not have all the answers, and that strange things are afoot in the world.

In summary, this is an interesting and highly entertaining read which is nothing more or less than it claims to be – a rough guide.

Kate Holden

THE BIG PICTURE

The Five Ages of the Universe: Inside the Physics of Eternity by Fred Adams and Greg Laughton
Touchstone, £9.99, ISBN 0684865769



This is a fine book to read if you want to learn more about cosmology than you will from most popular books on the subject.

Most books on cosmology cover only the first and a tiny portion of the second of the five ages covered here. The first is what the authors call the 'Primordial Era', running from the first tiny fraction of a second in the early universe to about 100,000 years later, when matter as we know it has formed. The second is the 'Stelliferous Era' running from a million years on, when stars are first born, to about 10¹⁴ years, far in our future (today is about 10¹⁰ years), when they have all exhausted their nuclear fuel. The third stage is the 'Degenerate Era' when the stellar shells capture dark matter, ending after 10³⁹ years when they have all decayed away. This is followed by the 'Black Hole Era' and finally, after 10¹⁰⁰ years, the 'Dark Era', when even the black holes have decayed, leaving behind nothing but the most basic particles such as photons and neutrinos.

The possibility that life of some sort could continue in these various eras is considered, and the

authors present some original ideas for this. This is all explained in clear, non-technical fashion without gee-whiz hyperbola and no mention of religion or other mysteria. The authors are both astrophysicists. Highly recommended.

Victor J Stenger

LAND LOVERS

The Ecological Indian: Myth and History by Shepard Krech III

W. W. Norton, £10.95, ISBN 0393321002

Chief Seattle gave his famous speech in 1854. He bemoaned the passing of wildlife: 'I have seen a thousand rotting buffaloes on the prairie, left by the white man who shot them from a passing train'. He admonished us to care for the environment, for 'the earth is our mother'. The speech has become downright sacred, it has been widely quoted in books, on TV, and by politicians and environmentalists. Even a popular children's book has been written around it.

There is only one thing wrong. Chief Seattle never said it; he never saw a buffalo, which never lived in the Pacific Northwest. The speech was written by screenwriter Ted Perry for a 1972 film about ecology. In other words, the 'Noble Savage' is alive and well, and Native Americans are described as superb ecologists who conserved the land and cared for the environment.

Shepard Krech, an anthropologist, has lived with Indians in the wilds of Canada's Northern Territory. He examines the myth of the 'Ecological Indian' through a half-dozen examples: the Pleistocene extinctions of the mega-fauna, the loss of the Hohocam civilisation, the changes in the US Northeast, the use of fire, the death of the buffalo, and the hunting of deer and beaver.

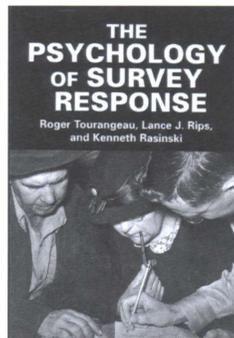
Native American don't have a magic relationship with the land. They are no more nor less conservationists than other peoples. If they had less destructive impact on the land, this was because they had a simpler technology used by a smaller number of people. Even thus, they could and did plenty to alter their environment.

Wolf Roder

FORM FACTORS

The Psychology of Survey Response by Roger Tourangeau, Lance J Rips and Kenneth Rasinski
Cambridge University Press, £15.99, ISBN 0521576296

This is a long and scholarly work that attempts to analyse how people respond to surveys and what factors may affect the answers they give to the questions asked. It delves deeply into the psychology of the subject and, as such, is not a particularly easy read.



First, the authors examine the way in which questions are understood, then they look at the role of memory, judgement and attitude to the question and the part played by bias. The way in which the survey is conducted is also studied, along with the way in which embarrassment at responding to sensitive issues can affect

the answers given.

The book is of most interest to skeptics in the way it examines the motivations of respondees to survey questions. How are 'facts' recalled? How does the person being interviewed reach his or her answers? How much does the nature of the question and the environment in which it is asked bias the response? Anyone interviewing a person who claims to have had a paranormal experience would find a lot of this useful.

So much information is contained in this book that it would be difficult to do it justice in this short review. I have selected a few points that caught my eye, however.

When asked about dates and frequency of operations (how often did you visit your doctor during...) there is often a tendency to telescope time periods or to take the frequency over a recent period and extrapolate it over the time in question. The embarrassment factor comes in here as well, with men underestimating the amount of alcohol consumed but overestimating the number of sexual partners.

The way in which the questions are phrased can make a difference as well. Asking whether the interviewee attended church on a particular Sunday may well get a 'yes', whereas asking about their movements on a Sunday morning may well get a quite different response.

A question about sexual activity or other sensitive subjects posed face-to-face by a live interviewer will receive different responses from identical questions on an anonymous, written survey.

I can't pretend this book was an easy read. It is more of a textbook than a layman's tome, and I have to confess to skipping some sections when they got very involved in psychology. For anyone planning to put together a survey, however, it would be essential reading.

Mike Walsh



LETTERS

Unified Consciousness

I'd like to thank Dr Richard Brown for passing on the Newprayer web site. I applaud the idea, but feel obliged to mention that according to modern cosmology the Big Bang happened throughout the universe, not in any one spot. So you can't beam a radio signal to the location of the Big Bang (even if you could, there would be a rather long delay before God got the message). On the other hand, if God is still at the site of the Big Bang, and that site is everywhere, then God must be omnipresent – which is, after all, just what some religions claim. If we combine this information with the advocates of Transcendental Meditation's claim that 'a collective consciousness is in the unified field of physics,' (from 'A Promise of Utopia,' Skeptic 13.2) we come to the conclusion that both God and the 'collective consciousness' are spread over the entire universe, which means that they might both be the same thing – mainly, if observations are correct, superheated hydrogen.

Charles Goodwin, by email

Astrology-free breakfasts

Has anyone else noticed the sudden appearance of an astrologer at that previously more or less superstition-free zone The Guardian? I first noticed a reference to 'the paper's astrologer' in the media supplement a couple of weeks

ago. A message of complaint fired off to the readers' editor brought a remarkable reply from the editor of *Media Guardian*. The astrologer in question, Maggie Hyde, is employed on the *Media Guardian* website to offer comments upon media stories of the day. (You can check her out at, say, <http://www.mediaguardian.co.uk/columnists/0,7550,368729,00.html>, where the same old stuff about Jupiter and Saturn is re-cycled.) I am assured that Ms Hyde is 'a genuine astrologer' (as opposed, I wonder, to what?) and in an astonishing claim the *Media Guardian* editor says: 'The media industry is in a period of enormous change and convergence where even the most successful global visionary has no idea how broadcasting, publishing, the Internet or related media industries will look in five, let alone ten, years time. Yet that doesn't stop commentators, analysts and plain old hacks having a punt. In that context, why shouldn't an analyst who uses astrology put forward their view?'

That a senior journalist should even ask such a question fair takes my breath away. Anyway, Ms Hyde's electronic utterances are now being quoted, quite straight-facedly, in the print version of the paper. I've registered my complaint with the editor, though I don't know whether it will do any good or not. I just find it so sad that a previously sane and rational paper, and one with which I have

had such a long reading relationship, should sink to this level. I really don't feel that I can buy it any more. Please hurry up with the next issue of *The Skeptic* so that I can have something to read at the breakfast table!

Jerry Goodenough
School of Economic & Social Studies, Norwich

Editor's note: actually, the Guardian has had these crazed moments before. We stopped reading the paper in 1988, after a long series of credulous articles about alternative therapies, all appearing on the Women's page became too much to take, especially since the complaints sent to the editor by a number of skeptics went completely ignored. It turns out the best answer is to sell them skeptical articles of your own.

Help wanted

I have been trying to persuade the UK government to ban adverts for strange powers without much success. I feel that fraudulent adverts must be banned unless the psychic can prove he deserves that title. My letters to my MP and the government have proven fruitless. Does my position have your support?

Tim Bedding
Tim would welcome email at tim@bedding0.demon.co.uk from anyone who shares his concern and would like to participate in an effort to work on this.

Where UFOs came from

The picture of Space Pelicans on page 5 (*The Skeptic*, 12.4) reminded me that it's time I confessed to having started the whole UFO fuss, back in 1942.

I was living in Melbourne, Australia, when Malcolm, the girl-next-door's handsome US Marine Pilot fiancé, turned up one evening with a pocketful of small Verey cartridges, borrowed from his Wildcat fighter plane, and suggested we fire them. We had no pistol, so we jammed them one at a time into the end of a yard-long pipe, stuck the end into a brazier, and watched the signal colours zoom up hundreds or feet into the night sky. Then one of us wrote to a Melbourne paper innocently asking if anyone had seen the strange lights in the sky. There were two or three local letters saying they had and, as I found out later, one from twenty miles away also claiming to have seen these strange 'bright' lights right above. The remarkable UFO was born. So was my interest in fibbers, and fabricators.

For instance, take those near-death experiences when souls go wandering around peering here arid there, popping across the road to see who's in the pub, and reporting back to the body they left behind. Has it occurred to none of those who insist such incidents are true, that in that case we have two sets of brains, eyes, cerebral cortexes and all? One lot in our bodies, still in the hospital bed, and another lot a hundred yards or so away. So, question: if you get a bullet through the brain, why worry? Just switch to the soul's brain, eyes, ears etc which, according to the NDE lot, can operate independently of one's body. (How does it see? Pull-colour radar? Or if it's just 'mind', why need a human brain

at all?).

I think one of the best TV programmes recently was the edition of BBC TV's *Horizon* that took Graham Hancock's silly series on the 'Lost Civilisation' apart, bit by bit, and fed it to the cat. His diagrams were wrong, his datings were false, and as for that 'world-wide flood' of barely ten thousand years ago, how did the Australian aboriginal rock paintings survive under hundreds of feet of savagely swishing salt water, to emerge into the more modern world with their 30,000-year-old shape and colour largely unaffected? (I've just been reading Josephine Flood's (no pun) *Rock—Art of the Dreaming*. Not a sign of that world-wide flood). I think it was Channel 4 which disgraced itself several years ago with a series *The Quest for the Ark* which insisted that a boat shaped in slipped igneous detritus was actually the Ark, 20 miles from Mount Ararat, and was of genuine fossilised wood of six thousand years ago.

John Clarke
Uxbridge

Notes and queries

I have often seen statements like 'The rate of remission of treated (psychiatric) patients is the same as that of untreated patients' and 'Counselled persons fare no better, and in some cases fare worse, than non-counselled persons' and have seen the odd publication supporting these views, but have never seen one refuting them. Can someone say what is the currently accepted position? They still seem to be fairly commonly quoted by skeptics.

George Wood
Stroud, Gloucestershire

The Terminator: I won't be back

Surely the description in *Hits & Misses* (Vol 12.3—4), when Terminator gene technology was described as a bad thing because of what might happen if other plants picked up the gene, completely misses the point of how Terminator works? Any plant carrying it cannot survive more than one generation. Perhaps as a safety measure it should be closely linked with every new gene inserted into crops. Would that satisfy Greenpeace?

I must admit to not having quite the gung—ho faith in genetic modification that I saw in colleagues when I worked in research, and that many advocates of the technology seem to possess. In my experience there are many better, cheaper, non-GM ways to improve agriculture, but there is no fat high-tech profit in them.

We had a wonderful baculovirus that could be cultured from local wild-type very simply in a shed in a field in any (poor) country, which effectively killed its host within a day in the case of first instar infection, and which was non-persistent, being broken down within a few days by UV. Because we worked in a 'near market' area we had to consider engineering a perfectly good wild-type by adding the gene for BT toxin, thus generating a profit-making product, and an expensive and pretty well pointless mission if feeding the world is truly your objective.

I think with genetic modification, the precautionary approach is essential because the consequences of a mistake could be so huge. It has been shown that, in the Japanese Medaka fish (*Oryzias latipes*), by the

addition of an engineered variant carrying the gene for human growth hormone (hGH) into a wild population, within 40 generations the population would be extinct. Though such engineered fish have a greater breeding success their offspring are less viable and fewer survive to breeding age (PNAS 96, p13 853). Such modifications are being experimented with in commercially important fish both here and in the US, as they grow bigger and faster.

Perhaps a good dose of scientific scepticism is needed when approaching these hot issues?

Simon Birnstingl
Upper Beeding, West Sussex

Self—publishing

So Julian Baggini won't read books published by their authors (Philosopher's Corner, Vol 13, 2). Is he aware that many famous authors had to do this? Would he not read them? Does he understand the distinction between 'vanity publishing' and 'self-publishing'?

I am the author of two books which I eventually published myself because I could get no commercial publisher to do so. They would often return the manuscript saying that what I wrote was interesting and worth saying but that it either didn't fit their list or wasn't quite right for them. One actually stated (about my book on Jesus) that what I claimed couldn't possibly be true! They all wished me well elsewhere. I recognise euphemistic rejections and understand that publishers prefer books that will be profitable. They don't really want books on somewhat obscure subjects by unknown authors, no matter that the author really may

have something original to say and may have solved a long-standing problem.

In my case, another problem was that I seemed to be the only expert. I searched in vain for like-thinking and informed people off whom I could bounce my ideas. Even though I managed to get a university professor to write an encouraging foreword for my book on Jesus, he admitted to ignorance of the subject.

Having read a great many books on my specialties, I can tell Baggini that being accepted by a commercial publisher is no guarantee of value or even common sense. Publishers mostly want either sensation or **anything** from a well-known author, even if he has nothing new to say. Anyone interested in my books should look at www.cix.co.uk/~explicit/.

Steuart Campbell
Edinburgh

From the heart

Another problem with the 'scientific' study of prayer not mentioned in the article is that the people praying don't know the people prayed for; indeed, they only know their first names (did the people in the target and control group all have different names?). Hence one could argue that their prayers weren't 'genuine' and so would be unlikely to influence God. I think most believers would claim that sincere, heartfelt prayer for a loved one should be more efficacious than praying for a stranger. So the study is not just flawed from the scientific angle but from the religious one as well.

Charles Goodwin
by email

Potpourri

In his article, 'Statistical Folly and Prayer' (Vol 13.2), Dene Bebbington did not mention the most glaring statistical anomaly in the figures, mentioned by Nicholas Humphrey in *New Scientist*. The report states that '1013 patients were randomised, 484 to the prayer group and 529 to the usual care group. After subsequent removal of those patients who spent less than 24 hours in the Coronary Care Unit [because it took at least a day to get the prayers up and running], 524 remained in the usual care group and 466 in the prayer group.' This means that 18 of 484 patients who were going to be prayed for got better within 24 hours, but only 5 of 529 patients who were not going to be prayed for did so. This gives a chi-squared statistical significance at the $p < 0.001$ level. The effect reported in the paper of the power of prayer itself is only significant to the $p < 0.04$ level. Either the process of being selected to be prayed for has a much greater effect than prayer, or the groups were not randomised as well as they should have been.

In 'The London Cat Flap', the suggestion that cats are being kidnapped for organ theft is not very plausible. Would the abductor really go to the trouble of bringing the body of the unwilling organ donor back where it had come from? The only organ transplants for cats so far are kidneys; there are only a handful of vets in the US who carry out such operations and probably none in the UK. It is hard to see an eminent veterinarian risking their reputation and lucrative career to be involved in this kind of dubious activity. (My source for

this is Caroline Reay BVSc MRCVS, Chief Vet at the Blue Cross Animal Hospital in Merton – who also happens to be my wife!)

In *Skeptical Statistics*, the number of members of the gnostic Stella Maris cult reported missing because they believed that an alien spacecraft was going to save them from the end of the world: actually zero. This story was revealed as a piece of irresponsible journalism by the Colombian newspaper *El Tiempo* when the cult was on their annual retreat (see *Fortean Times*, April, p.66). Sometimes you should be skeptical about these stories...

David Hambling, by email

Errata

I fear the gremlins have got at vol. 13 no. 2. The *Tipping Point*, reviewed on page 22, is, as the review makes clear, not by Malcolm Gladwell Little and published by Brown, but by Malcolm Gladwell and published by Little Brown. Also, the review of *The Encyclopedia of the Loch Ness Monster* (p. 26) is illustrated with the front cover of *The Created Self*, subject of the preceding review. Oh, and *The Loch Ness Mystery Solved* is by Ronald Binns, not Ronald Binn as implied by 'Ronald Binn's'.

Ray Ward
by email

Editor's note: Indeed. We apologise for the errors.

I suppose I won't be the only person to point out that in his letter (*Skeptic* 13.2) S A Owais has confused Wilhelm Fleiss with Wilhelm Reich. Fleiss knew Freud in the early part of his career, Reich towards the end. Both Wilhelms had unusual ideas but there is no reason to confuse them.

LJ Hurst, by email

Editor's note: She wasn't: several readers wrote in to point out this error. It was indeed Wilhelm Fleiss, not Wilhelm Reich, who cooperated with Freud in nasal operations intended to cure neuroses. Thanks to all of you.

The *Skeptic* (Letters), PO Box 475, Manchester, M60 2TH, UK or email: edit@skeptic.org.uk
We reserve the right to edit letters for publication.

skeptics in the pub

SKEPTICS IN THE PUB

18 JAN – Ask the Experts (Chris French, Richard Wiseman, and Wendy M. Grossman, if not gone lunar)
15 FEB – Geoffrey Dean (world's leading expert on empirical studies of astrology, according to Chris French) who happens to be visiting the UK from Australia at the time of the Feb meeting.

A welcome is extended to anyone interested in, or skeptical about, the paranormal, alternative medicine, psychic powers, pseudo—science, UFOs, alien abductions, creationism, Fortean phenomena, cult religions, water-divining, lost civilisations, etc.

Meeting dates for the first half of 2001 are as follows. Speakers to be advised.

- 18 Jan Thur
- 15 Feb Thur
- 14 Mar Wed
- 18 Apr Wed
- 17 May Thur
- 21 Jun Thur

TIME – 19:30

PLACE – Upstairs in the Florence Nightingale pub 199 Westminster Bridge Road, London, SE1, Junction with York Road, on the roundabout, near Waterloo station.

Detailed directions and a map of how to get to the pub can be found at www.skeptic.org.uk/pub.

NB: March and April meetings will be on the WEDNESDAY of the third Thursday week, ie Wed 14 March and Wed 18 April.

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