

Volume 9 Number 6

The Skeptic

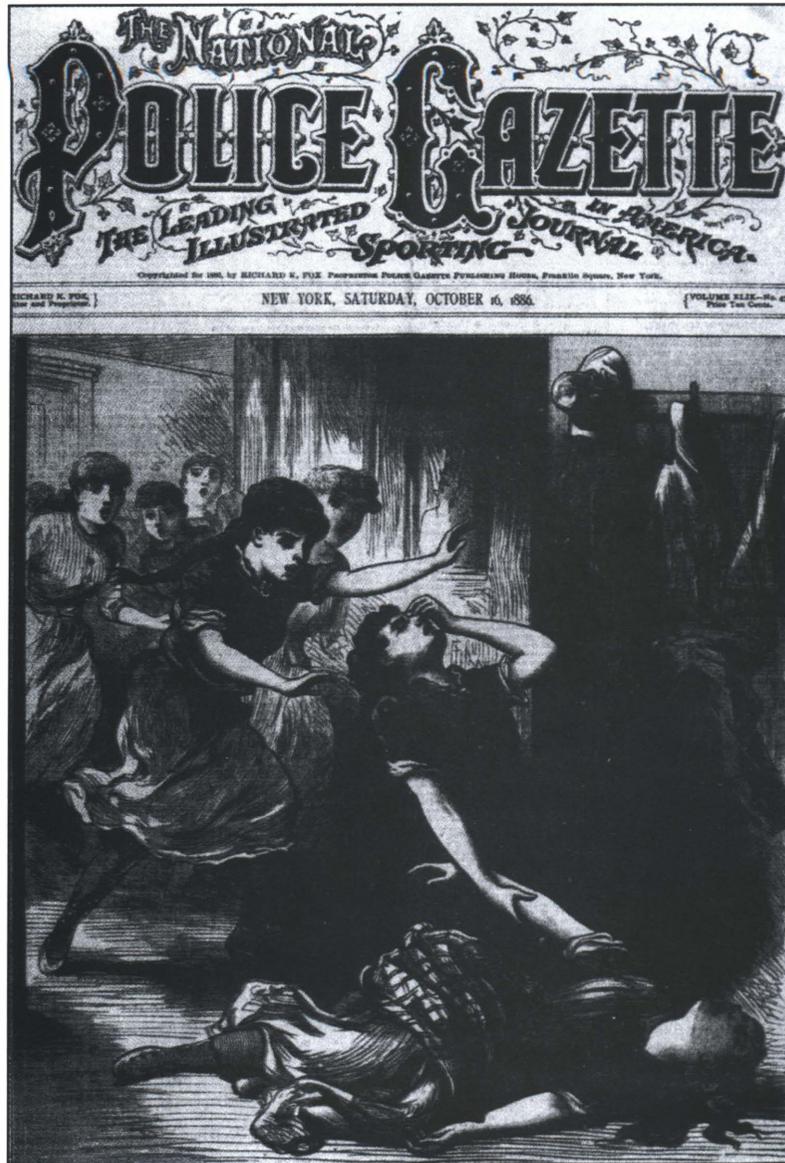


Also in this issue

Desperately seeking immortality
The modern myth of the flying saucer
Behind the placebo effect

£2.00

Hilary Evans' Paranormal Picture Gallery



Hysteria grows in Brooklyn

WHEN ONE DAY in 1886 a girl working in a cigarette factory in Brooklyn went into a fit of hysterics, the entire work force was affected and the factory had to close down for the rest of the day.

The phenomenon loosely termed 'mass hysteria' was formerly attributed to the devil, who caused communities of nuns to go into riots of misbehaviour. Today, we classify it as a psychological problem, mass psychogenic illness: but finding a pigeonhole for it doesn't explain it. Although hundreds of incidents have been observed in which an individual fit has triggered a collective outbreak, we do not know why it occurs sometimes and not others, nor what its psychological mechanics may be.

Source: *National Police Gazette*, 1886.

CONTENTS

Volume 9, Number 6

Editors

Dr Steve Donnelly
Toby Howard

Subscriptions and Finance

Dave Martin

Cartoons

Donald Room
Tim Pearce
Nick Kim

Proofreading

Jane Bousfield
Daf & Mike Tregear
Angela Cernoculski

Special Consultant

Cyril Howard

Printing

Chapel Press, Stockport

Hits and Misses	4
Steve Donnelly	
Feeling Cosy in the Cosmos	6
Charles Ward	
A New Psi Research Programme	8
Susan Blackmore	
La Dolce Saucer	9
Bill Forth	
Is There Really Anyone Out There?	12
Mark Lawson	
The Amazing Dummy Pill	16
Edzard Ernst	
Names to Conjure With	18
Russell Dear	
Psychic Diary	20
Toby Howard	
Skeptic at Large	21
Wendy Grossman	
Reviews	22
Letters	27

The Skeptic is published bimonthly from
PO Box 475, Manchester M60 2TH, UK.

Email: skeptic@cs.man.ac.uk.

Web: <http://www.cs.man.ac.uk/aig/staff/toby/skeptic>.

Opinions expressed are those of the
authors and do not necessarily represent
those of the editors.

ISSN 0959-5228

Copyright © *The Skeptic* 1996

A big thank-you to all our newspaper and magazine clippings contributors, who for this issue include:
Andy Brice, Stuart Campbell, Jock Cramb, Bill Donnelly, John Clarke, Gerald Fleming, Dorothy L Forrester,
Earnest Jackson, Yilmaz Magurtzey, David Martin, Stephen Moreton, Austen Moulden, Alan Remfry,
Donald Room, Neil Rosen-Webb, Tom Ruffles, Mike Rutter, Gillian Sathanandan, Ian Saunders, H Sivyver,
Brian Slade, J Thompson Jnr, Chris Torrero, J G Watson, Chris Willis.



Hits and Misses

Steve Donnelly

Radionic rip-off

To most skeptics, the fact that an analysis of hair by 'radionics' gave inconsistent results would cause no surprise. An article in the *Manchester Evening News* on 30 November, however, probably more accurately reflected the attitudes of the general public in its tone of surprise and indignation when it reported on the results of such an analysis carried out on two separate locks of hair sent under different names to a radionics expert in the Outer Hebrides. Sue Brewer, who works for Trafford council in Manchester, replied to an advertisement in a shop window claiming that a number of tests for allergies to toxins, medicines and foods could be carried out for £25 each. When the results came back, from the address on the Isle of Lewis to which the locks had been sent, the computer print-outs for each lock differed wildly. The first set of results claimed that she needed to cut down on her high intake of gin, whereas the second did not mention gin but claimed that her consumption of the popular bedtime drink, Horlicks, was too high. Unfortunately Sue drinks neither Horlicks nor gin at bedtime or any other time. She is, however, allergic to penicillin and septrin but this was not mentioned in either report. Now trading standards officers in Manchester are warning the public to be on their guard against 'hocus pocus' therapies in view of the possible serious consequences for people who could be put on inappropriate diets as a result of false diagnoses of allergies. Unfortunately, but perhaps entirely understandably, head of trading standards Joe Mann distin-

guishes between forms of quackery by advising that: 'There are various practices on the market which offer alternative therapies, such as homeopathy, which has a favourable reputation. Radionics is not one of them. We are warning the public to be aware'.

Skeptics are advised to stick to popular therapies such as reflexology, iridology and chiropractic and skip the dodgy ones based on nonsensical principles.

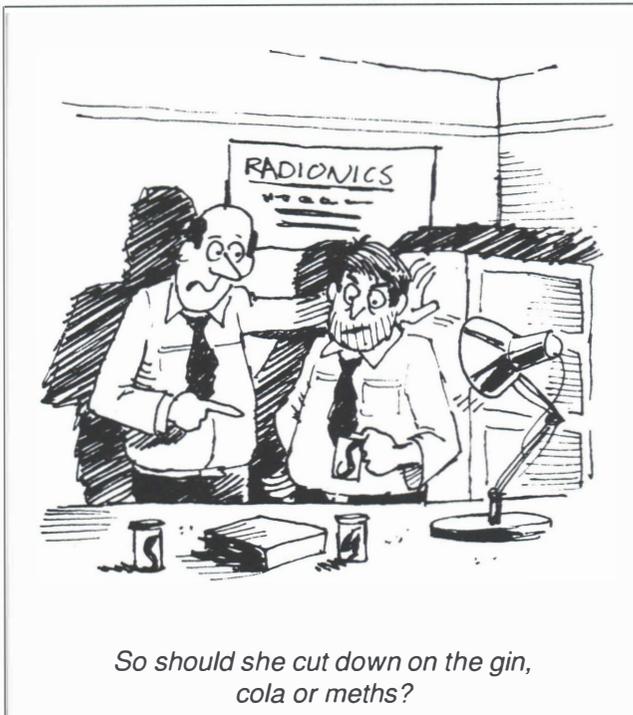
Bee healthy

Of course an alternative to submitting yourself to treatment by alternative therapies would perhaps be to keep yourself healthy in the first place by regularly eating a few teaspoonfuls (or capsules) of that health product favoured by royalty and celebrities (and bees), royal jelly. Unfortunately, if a recent article in the *Independent on Sunday* is to be believed, you may need a radionic allergy analysis first. According to the article, published on 17 December, a 31-year-old Brighton woman who took royal jelly capsules subsequently collapsed following an asthma attack and needed intensive care for respiratory distress. In Australia, royal jelly has been linked to the death of an 11-year-old girl and five other cases of similar adverse reactions to the food of queen bees have also been reported. The medical toxicology unit at Guy's Hospital is now asking GPs for notification of any similar cases and consultant toxicologist Virginia Murray of the unit feels that packages of the jelly should carry health warnings: 'I believe there should be warning labels ... [that] would warn that if you are allergic to bee stings, bees, honey or other related products you should think twice about taking royal jelly ... The reaction in the woman in Brighton was life-threatening. One of the problems is getting over messages that some traditional remedies can have side-effects'.

Although many people are unhappy at the addition of 'E numbers' and various other chemicals to foods, the problems with royal jelly serve as a reminder that many more people are made ill and die because of natural toxins and allergens in foodstuffs than as a result of chemical additives.

Ghostman

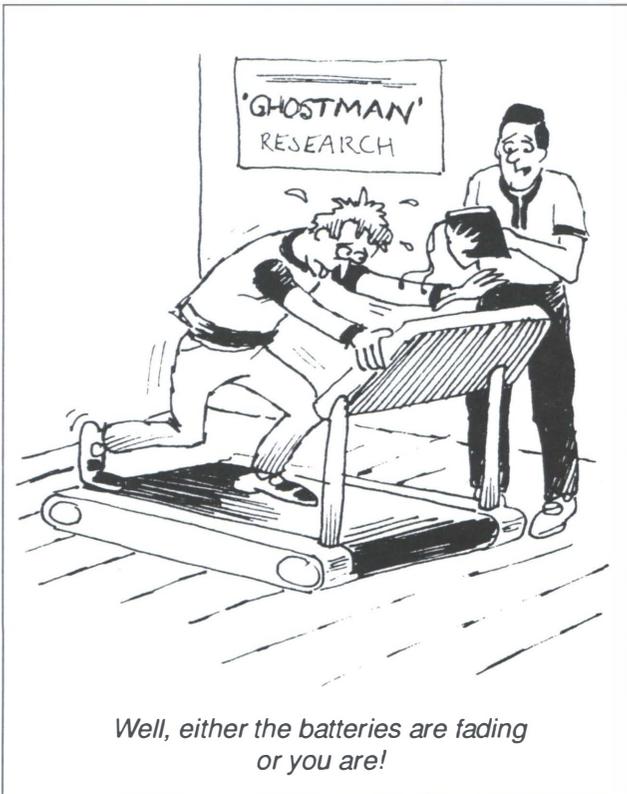
Uncertainties about ill health, whether from allergens, toxins, bacteria or psychological problems could soon be a thing of the past if a new piece of consumer electronics from Sony repeats the success of the ubiquitous Walkman. The new device, provisionally known as the Ghostman, is the first product of Sony's Research Institute of Wisdom and is a combination of high technology with Eastern spirituality which Sony claims measures a person's physical and emotional health. More remarkably, according to a spokesman



from Sony: 'We believe the Ghostman could eventually be able to predict a person's destiny as well as their medical risks by revealing the person's physical constitution in terms of Eastern medical science'. Wow!

According to an article in the *Daily Telegraph* on 18 November, the device carries out pulse diagnosis, one of the main components of traditional Eastern medicine, believed to yield information on the health of various internal organs and thus on the patient's personality. Perhaps it will also furnish information on the damage to teenagers' hearing caused by use of personal stereos at high volume. Sony will market the Ghostman in Japan in 1996 before deciding whether to bring it to the West.

Tim Pearce



High (-tech) spirits

Whilst on the subject of high technology, readers may be interested to know that the seemingly rather Luddite spirit world seems finally to be catching up with modern technology. Following the first receipt of paranormal video images on a computer screen by instrumental transcommunication (ITC for short) in 1986, Maggie and Jules Harsch-Fischbach in Luxembourg founded the Cercle d'Etudes sur la Transcommunication – a research group that also has interests in human and animal rights, the ecology and the EC. Interest in ITC has spread worldwide although Mme Harsch-Fischbach remains the main recipient of paranormal information. In an article in the *International Herald Tribune* on 28 October, a spokesman for the International Network for Instrumental Communication claimed that spirit images typically appear on screen when a computer is plugged into the mains but not in use. (Actually, under these circumstances my computer comes up with images of flying toasters but I haven't worked out their significance yet.) Another com-

mon means of paranormal communication is for the spirits to create a new file on the computer's hard disk. (Of course mischievous entities such as poltergeists may alter your hard disk in other ways – if you experience hard-drive problems you should probably pay for a visit from an exorcist rather than for antivirus software). Numerous celebrity spirits have been in contact with the Harsch-Fishbachs via the computer, telephone and radio. These include Scott Joplin, Marie Curie, Thomas Edison and Jules Verne. ITC researchers are insistent that the technology for ITC contact will not be taken over by Microsoft.

No end in sight

Despite the approach of the millennium we can heave a collective sigh of relief: the end of the world is not quite as nigh as it once was. The Jehovah's Witnesses have been predicting the arrival of the Day of Judgment for more than a century – the first date being 1914, with two more Armageddons predicted for 1925 and 1975. However, as readers will no doubt have noticed, the end of the world did not come to pass on those dates and – according to November's edition of *The Watchtower* – senior figures in the church say that there will be no more speculation on a specific date for the end of the world.

The Witnesses believe that the system in which we currently live is evil and that world powers and politics are the unwitting allies of Satan. Their avowed aim is to establish God's kingdom (the Theocracy) which will fully emerge following Armageddon. At this time only the Witnesses and their followers will be saved – with a chosen 144 000 believers going to heaven and the rest living in the earthly paradise. (By the way, as *Skeptic* readers do not tend to send regular clippings from the *Watchtower*, the information in this item was gleaned from an article in the *Independent on Sunday* on 12 November.)

Get your kicks on Route 666

As a result of a combined protest by Navajo Indians and born-again Christians in Gallup, New Mexico the US Transportation Department is considering changing the name of a stretch of road currently known as Route 666. The 200 mile highway runs from southern Utah to northern New Mexico, passing through the Navajo reservation along the way. According to *The Scotsman* on 5 August, the road, which is a spur off Route 66, was innocently named by engineers over fifty years ago. However, 666 is the 'number of the Beast' for fundamentalist Christians and any multiple of six is a carrier of evil in Navajo tradition. According to the protesters, the large number of road accident deaths on the 'Devils Highway' is due to this double dose of evil. However, the Sheriff in Gallup points out that, rather than any direct Satanic influences, most deaths on the road are directly linked to beer-buying trips from the (dry) reservation to Gallup whose main street is lined with bars and liquor stores.

Steve Donnelly is a physicist and a reader in electronic and electrical engineering at the University of Salford.

Feeling Cosy in the Cosmos

Charles Ward

... or desperately seeking immortality

Sceptics come, like chocolates, in two varieties, with hard and soft centres. Or, if you like, plain and milk.

Hard-nosed sceptics (as they are sometimes called) prefer the plain truth without any frills. Reality, so far as they are concerned, can be as stark as Lady Godiva. Soft-hearted ones, mixing the milk of human kindness and other sentiments with which they feel vaguely ill-at-ease, are inclined to avert attention from nature's less seemly behaviour.

To put this another way, the universe has a general appearance of being totally indifferent to human welfare. This state of affairs is stoically accepted by sceptical 'toughs', whereas the less thick-skinned cherish a hope that the cosmos is secretly benign and will ultimately invest our minuscule existences with some significance.

They are to be found browsing, not guiltily among the blatantly 'occult' offerings in bookshops, but in the more meagre sections labelled 'science' and 'philosophy', where they are looking for enlightenment. All too often they are unaware that these erudite aisles have been invaded by aliens – namely, fiction-writers in disguise. These can even include members of the scientific fraternity who have discovered how lucrative it can be to publicize their offbeat fancies in populist style.

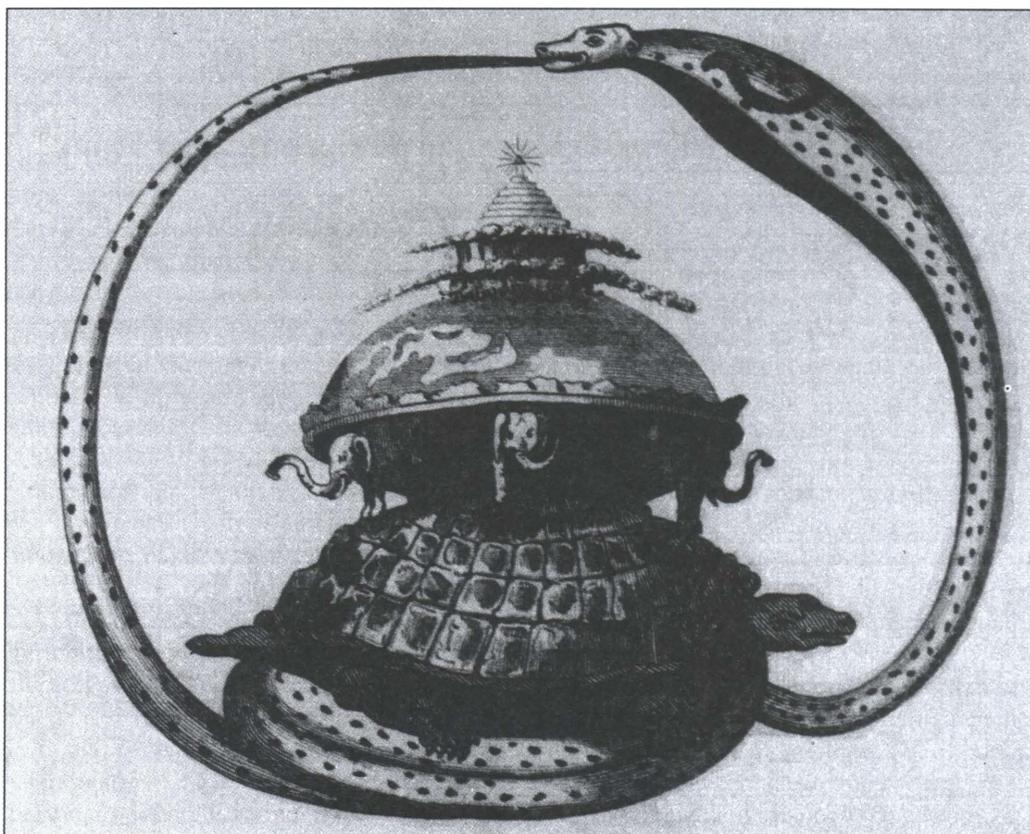
Hard-nosed types, immune to temptation, are not necessarily hard-hearted, and may offer a health warning to those whom they perceive to be susceptible to the hard sell in cosmic fantasy, especially when presented with scientific panache. They can wish to spare, from futile prolongation of distress, those who suffer withdrawal symptoms as they relinquish traditional doctrines they can no longer believe.

Aside from the miserable wretches who feel that life is a letdown and has robbed them of once-Edenic expectations, or has never thrown them the smallest crumb of comfort or delight, the average sceptic is as conscious as any of the truism that a healthy mind is imbued with hope.

By that, however, is meant a buoyant attitude geared to tackling the opportunities and difficulties of each day with mental vigour and a determination to come out (more or less) on top. It has nothing to do with speculative dreams of what a distant time may hold and which betoken a tenuous grasp upon reality.

There is universal recognition that expectation of misery and disaster to come – whether in this life or any imagined future one – is a 'sick' state of mind to be in, but the pathological nature of the opposite extreme is camouflaged by constant emphasis upon the virtue of having 'faith', and there is virtually no acknowledgement that the same applies to the intermediate condition, marked by vacillation, in which so many find themselves.

Its distinguishing feature is the desire to find all-embrac-



Mary Evans

ing assurance in some comforting cosmic philosophy, instead of confining the natural human propensity of hope to appropriate mundane applications. There is consequent tension between a longing for ultimate answers and a repressed suspicion that pursuit of such assurance is allied with self-delusion.

Deference is paid to scientists by people who do not understand the nature of science. Science does not, as some suppose, deal in certainties, but in (statistical) probabilities. The predictions made by all its theories are subject to confirmation by observation, or reproducible experiment. Agreement of this kind is not equivalent to proof, for scientific theories are always subject to review; or even abandonment, as knowledge increases.

Theoretical physicists, who are engaging much public interest today, are primarily mathematicians, engaged in producing new theories, which have to be tested. Cool research may be subject to defrost when in hot pursuit of academic fame. Scientists have ambitions, are subject to fears and hopes, have idiosyncrasies. They are no wiser than the rest of us in dealing with their private lives, or with the backlog of inherited notions into which, in one form or another, everyone is plunged as a child and from which, despite originality of thought, even geniuses never entirely escape. Few, if any, are so ruled by logic that they are never affected by their emotional preferences. Scientists, in fact, may be quite unscientific, especially when it comes to assessing the value of their personal opinions.

While, by means of scientific discipline and a determination to be rational, errors of judgment may be curbed and their incidence reduced, their elimination cannot be guaranteed. The most erudite will sometimes disagree. As members of the general public, we may find their consensus on various matters reassuring, but should not assume that some accepted tenet would never require revision.

Acceptance may have to be provisional, as with Dirac's particle equation, where confirmation had to await someone else's discovery. Without such experimental proof, wholehearted credence concerning any theory has to be withheld. Appeals to authority, or prestige, are not permissible. Some scientists win deserved plaudits, but these are no guarantee of continuing excellence, or sobriety of thought.

In the eighties there was Sir Fred Hoyle telling us that:

The seemingly insuperable difficulties of deep-space travel suggest an intention to keep us fixed at home in our own solar system, and the physical nature of our part of the Universe, as well as the basic rules of physics and chemistry, have a warning look about them, like barriers designed to isolate intelligent life. (*The Intelligent Universe*, p 156)

Earlier, in the sixties, de Chardin's prestige as an anthropologist accorded the Jesuit mystic exaggerated respect for his quasi-scientific, involved theories:

Because it contains and engenders consciousness, space-time is necessarily of a convergent nature. Accordingly its enormous layers, followed in the right direction, must somewhere ahead become involuted to a point which we might call Omega, which fuses and consumes them integrally in itself. (*The Phenomenon of Man*, p 259)

Thirty years later we have an American offering his own Omega Point Theory (Frank J Tipler, *The Physics of Immortality*, Macmillan, 1995), although claiming to have merely borrowed the title and nothing else from the Gallic priest. Dr Tipler is a professor of mathematical physics at a US university and with John D Barrow) proponent of the 'anthropic cosmological principle'. Stephen Hawking has referred to it as 'the so-called anthropic principle, which can be paraphrased as: The universe is as it is because if it were different, we wouldn't be here to observe it'. The term 'principle', grandiose or not, has come to stay.

As Hawking observes, few would quarrel with the validity or utility of the anthropic principle in its weak form, but the strong version, which would claim that this whole vast construction exists simply for our sake, is another question altogether. Tipler's brew is not only strong, it is extremely heady, as will be seen in a moment.

He asserts that his theory 'can be a solid foundation of support for all the great human (*sic*) religions' (p16) He insists that this is a scientific foundation and makes no appeal to faith. Perhaps not, but, as I read on determinedly, I found what faith in his judgment that I had begun with, as a matter of courtesy, rapidly diminishing.

His excursions into theology and biblical exegesis I personally found toe-curling. Having an eclectic acquaintance with these matters, I imagine the entertainment they would provide in ecclesiastical circles. They seemed to me like fading snapshots of former encounters with religious ideas which had not been too rigorously examined, or which had produced any profound perceptions, but which had left a lingering nostalgia for divine revelation, or perhaps the nearest he could get to that – his own inspired speculation.

I also noted the facility with which he grabbed at what appeared to fit his theory and offhandedly dismissed what did not.

Judge, however, for yourself. He says he has 'epistemologically reduced theology to physics' (p296) Nor is this his only claim – 'in about thirty-odd years we should be able to make a machine which is as intelligent as a human being or more so' (p43) and 'colonization [of the Milky Way Galaxy] could begin by the middle of the next century' (p55) Mankind's cybernetic successors are, eventually, to dominate the entire universe.

But he warms most to the theme of 'life after death' – 'the physical mechanism of individual resurrection: we shall be emulated in the computers of the far future . . . we . . . shall inhabit . . . "virtual reality" or "cyberspace" ' (p220).

Don't mock. Not merely because Tipler is apparently sensitive to 'hoots of derision from skeptics' (pp262/3). It's all rather sad really. Not for the first time, truth has been given a raw deal. But the implication, now, is uniquely serious. We are in danger of blotting out half a century of progress with a new type of obscurantism.

The issue was well described by Rudolf Thiel forty years ago in his popular history of astronomy, *Und Es War Licht*:

It is a somewhat painful thought that the profoundest truths of physics can no longer be grasped by human reason, not

even by the minds of philosophers. The human mind is limited by the words of a language, and in this realm not even the most abstract language will serve . . . Mathematics comprehends truths that are no longer susceptible to verbalization, and which nevertheless meet the hardest possible test: that of predicting realities.

Popular science writers tend to ignore the unpalatable fact that the realities predicted are matters of experience (think of atomic power) and not of mere speculation. Of course it is understandable that people are curious about the universe in which they live and equally understandable that some should endeavour to give science an appearance less arcane. Nonetheless, today we have got to come to terms with the 'painful thought' outlined above.

And that goes for scientists, as well as their readers, from whom they may hope to make a fast buck, or persuade to join their Pythagorean fraternity depending, perhaps, on how ambitious they are for personal reward, or how inspired by lofty humanitarian ideals.

A hunger for ultimate truth will not be satisfied with the Emperor's new food. Are some scientists writing with tongue in cheek or are they merely mesmerized by their own imaginative extrapolations from their strictly untranslatable equations? To suggest the latter is not merely more charitable; it is borne out, I believe, by careful analysis of the opinions they express when they venture beyond the frontiers of their discipline. They appear to be making the sort of attempt which an illiterate preacher claimed to be the object of his sermon: namely, to unscrew the unscrutable.

Scientists cannot converse with us in algebraic form, although maybe that's how they talk to each other. Ordinary language contains many incomprehensible elements and misleading images. Those, like our own Roger Penrose, who expound with such intriguing enthusiasm, are occasionally suspected, perhaps justly, of confusing metaphor with unchangeable fact.

Being blinded with science seems to me to be a particularly reprehensible form of credulity. But do we blame the ignorant or gullible, or those who either pontificate or make a display of their erudition

Almost a quarter of Tipler's book is given over to an appendix for scientists, introduced with the disheartening comment that 'to comprehend it all without reference to a research library would require PhDs in at least three disparate fields'. Who could fail to be impressed? Clearly, the cogency of arguments employed can only be decided upon by scientists who are sufficiently qualified and also sufficiently disciplined in their treatment of the relevant material.

But I cannot refrain from wondering, who would care to take the trouble, especially when aware of not infrequent leaps of conjecture in the argument? Apart, that is, from intimate friends disposed to agree with his astonishing scenario.

He claims that human nature . . . 'desperately wants immortality' (p 8).

Not all that desperate, I think.

Charles Ward is a writer living in the Cotswolds.

New Psi Research Programme

Susan Blackmore

AS SOME READERS of *The Skeptic* will know, earlier this year I was appointed Perrott-Warrick Researcher, and awarded a grant of £20,000 per year for three years (with a possible extension to five years). The grant is for research entitled 'Reality and Imagination: Psi at the interface?'. The research will begin with surveys of psi in borderline states of consciousness, including hypnagogia, sleep paralysis, lucid dreams and false awakenings. We are interested in the experiences of both adults and children. We will then go on to explore ways of inducing these states in the laboratory and at home, with the intention of conducting psi tests in both naturally occurring and induced altered states. Other experiments will induce confusion between reality and imagination by using a false memory paradigm.

The funds are being used to employ a part-time secretary (Trudi Osgood) and a research assistant (Nick Rose). Both began work on October 1st 1995. Nick will also be working towards a PhD while employed on the project. Several volunteers around the country will be helping with collecting data and running training groups in their own areas.

Many sceptical explanations of paranormal experiences involve one or many of these states. However, there is little research being done to understand the nature and cause of such confusions between the real and imaginary. Thus many 'believers' feel that current scientific explanations for their experiences are simply prosaic, somehow dismissive of events in their lives that may have profound meaning for them. We hope this research will provide a better understanding of both the experiences and the way people interpret them.

We would welcome accounts of any experiences in which you may have felt that reality and imagination were confused. For example in many OBEs correct observations seem to be mixed with obviously imagined ones. Other examples are hypnagogic and hypnopompic imagery, sleep paralysis, alien abduction experiences, lucid dreams, false awakenings and near-death experiences. I am sure there are other states not included here, and experiences for which there is no name but which nevertheless involve a confusion of the real and the imagined.

Please write to the address below. If your account is a long one we would welcome it on disk (please state which format you have used or convert to text only).

Dr Susan Blackmore, Department of Psychology, University of the West of England, St. Matthias College, Bristol, BS16 2JP. Email nj-rose@wpg.uwe.ac.uk.

La Dolce Saucer

Bill Forth

Don't fool with the men in black . . .

I ADMIT TO A LOVE of UFO minutiae. Friends say I'm obsessed (not that I'm a believer). But, I'm fascinated by the details of what I consider our most prevalent modern myth, and especially by the way logic beams out the window whenever the subject comes up.

Recently, I joined several of my best friends for an impromptu birthday party in Seattle, Washington. Six of us were present; what began as a dinner celebration morphed when the designated baby-sitter called at the last minute with an unexplained crisis. We convened instead at the home of the Birthday Girl and her husband. We never got around to a real meal, but instead shared lots of nibbles, which was a lot more fun and better suited to a birthday party anyway.

It was a lovely, Northwest summer night, the kind that encourages languor, merlot, cake and conversation. By the way, we're all college graduates and professional types. There were six of us, four men and two women, and out of respect to my friends, whom I love dearly, I'll leave out their names. They're angry enough with me already.

The lovely Birthday Girl and her handsome husband had just returned from a visit to the UK. It was a combination business trip and holiday, and since they had sought my advice on what to see and do in points West, here was their report.

The Birthday Girl spoke limpidly of the wonderful time they had together, their first trip to England. 'We loved Bath, and we went to Glastonbury, and you were right, it's so beautiful there! We climbed up to the top of the Tor, what an incredible climb and what a view. There was an English couple there when we got to the top, and you won't believe this, but, oh my God, we all saw a UFO!' Her eyes sparkled.

I shook my head involuntarily. Had I lost another friend? Why hadn't I seen this coming? I paused and asked gently, 'But, you know there are no UFOs really, don't you?'

'No, it was a UFO! We all saw it. It was moving like nothing else could (she made Zorro gestures in the air.) It had strange lights, I saw it hovering and spinning and then it simply zoomed off and disappeared! The British couple saw it too!

Everyone at the table listened to her story carefully and nodded. A cold silence settled in. Like environmental issues, something about UFO discussion invites social scrutiny, as in, are you one of us, or are you a cynic?

Clearly, I was out-gunned. Two observations here from

the writer: (1) British endorsement apparently still carries a lot of weight with Americans, at least on this subject. (2) In space, no-one can hear you scoff.

She continued: 'You mean, you don't believe they exist!?' Her utter astonishment and disappointment came hurtling at me like a photon torpedo. Were I a sex-offender-heroin-dealing-fur-trapping whaler, I would have felt more welcome at the table.

Everyone joined in at once: 'There's so much evidence!'; 'You can't say you know for sure!'; 'What about the crop circles!'; 'And what about the thousands of people who have had close encounters?'; 'What about UFO abductees!'; 'How do you explain away the evidence?'

I felt like I was fighting off five assailants with swords. Before I could respond to one question, another came swooping down in a fierce arc. There was no escaping. If I were lucky, I'd wake up in a Pleiadian surgery in no time. I could see that my friends were very, very disappointed in me. How could I be so, so, *bloody negative* about it all? Would they ever entrust me to care for their pets? Their children?

'Well, no . . . I don't believe UFOs exist at all', I said.

'But what did we see, then? And you know, this British couple told us about this ancient system they have there that focuses cosmic energy called ley lines, that attracts UFOs, and he was a computer programmer!'

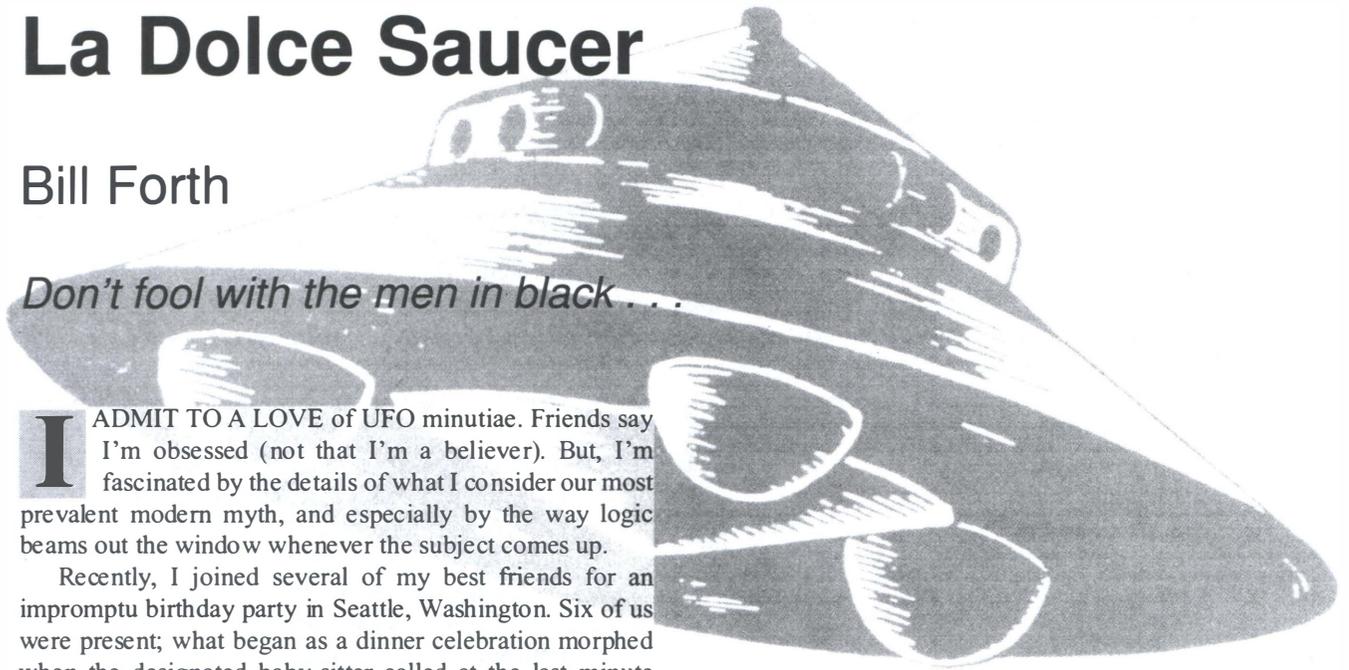
'Maybe they were just pulling your leg.' The silence resumed, with more grave shaking of heads. How would Jean Luc Picard handle this, I wondered?

The most mature person among us at the table spoke out: 'How do you explain the thousands of sightings by reliable sources?'

'I think people think they see them, and actually, they might really believe they see them, but I don't think they exist.'

'Are all the UFO abductees crazy, then?'

'Not necessarily, but I think that yes, probably a lot of



them are.'

'But why do they all give similar accounts of their abductions?'

'Because they are not very imaginative.'

'What about all the medical experiments? They all mention examinations, implants, being bruised and that . . . anal probe!'

'I tend to think that the anal probe is more likely attached to, say, some poor unfortunate's Uncle Leo, rather than some gray anthropomorphic critter with a sucker for a face and claws like a crab. The number of claims of bizarre sexual experiments aboard UFOs and examination of human specimens makes it apparent that these are people who were abused, raped, or hurt very badly somehow. They talk about being undressed, examined, probed, and having semen drawn, being burned and so on, so I think that what they are really talking about is painfully apparent.

There's just too prevalent a pattern of nightmares, lost experiences and trauma among abductees to assume otherwise. These are simply disturbed people who are drawing on what they've absorbed through the media to seek an equilibrium for their traumas.'

'But if all the abductees are crazy, what about all the pilots who claim to have seen UFOs?'

'Should we assume that because someone says they are a pilot, they are being any more truthful? I think there are a lot of possibilities, and you have to keep in mind that, as much as we'd like to believe otherwise, there are lots of liars and crazy people in the world. So, one explanation is that they may be lying for fun, profit or some other reason.

Two, people may see something, but it's unidentified, and that doesn't necessarily mean it's from another galaxy with advanced science, no wars and a pan-galactic federation of planets. It just means they don't know if it's a balloon, a goose, a frying pan or a helicopter.

Three, they may be hallucinating. There's so much yearning in our fractured culture for unity, self-worth, understanding and community that this seems likely to me; I think so many people wish it to be true that UFOs exist, that the power of their imaginations and unconscious may drive them to see things that aren't, and never were, really there at all.

We could imagine lots of explanations, but that's just three. I'm also very suspicious about these things being luminous, circular, hovering, magical and fleeting. It has all the marks of the right myth for our fractious age. UFOlogy says: we're smarter than you, you're not ready for us, we're concealing ourselves, and by the way, we're coming back for you when you're sleeping sometime, kidnap you and stick something up your rear. Is that you, Uncle Leo?

Why are they bright, shining circles? Or, big surprise, 'cigar-shaped objects?' Why aren't UFO's shaped like desks, or televisions, or psychiatrist's couches? Because they wouldn't be quasi-religious, and wouldn't convey the same power of the yearning for integration.'

I was losing ground fast . . .

'Now you can't, in your heart, tell me that you can say, with absolute certainty, that it's not possible there are UFO's. You have to admit that it's possible! You have to!'

'I concede it's possible: but, I think there is at least as good an argument for the existence of Santa Claus. After all, pilots around the world report seeing him flying through the air every year; admittedly he's in a horse-drawn sleigh, but who knows how advanced his technology is?

Children confirm receiving gifts from him on a global scale. Millions write to him every year. Where do their letters go? And what about all those elves? Don't they fit the description of the small green alien corpses recovered from the documented UFO crash in Roswell, New Mexico? Is it just a coincidence? And what about the mistletoe angle? Isn't that what astronauts get instead of athlete's foot?'

I knew that was a dumb joke, but I was getting desperate. The atmosphere in the room was deadly serious.

'How do you explain the crop circles in England, then? As an artist, as an art instructor, I can tell you that there is no possibility that human beings could have created them. And, it's been proven that the two guys who said they did it were lying!'

'If we attribute crop circles to UFOs we're really jumping off the deep-end. But, since you ask, they look pretty easy to make to me. All you would need is something like a big spirograph, and something to trample down the corn. I think some clever engineering students could organize it with just a working knowledge of geometry, a few posts, some wire, and an obedient horse.

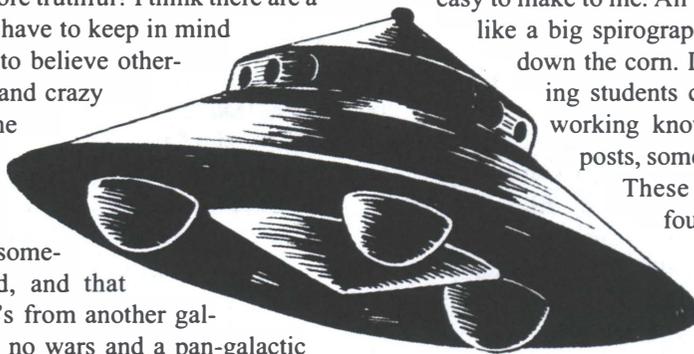
These materials are more likely found in a barn in Devon than on the surface of Alpha Centauri.'

'Look, I'm really sorry, I know this is upsetting to you all, but I really don't believe any of this stuff. I was once a true believer, but now I'm a skeptic. Please forgive me.'

I tried to explain a little about my background as a UFO enthusiast: several years ago, I began attending meetings of UFO cultists on a lark (I live in Los Angeles, and it's easy to find them.) Here's one of many experiences . . .

One evening, accompanied by a couple of pals, I went to a meeting conducted in Van Nuys, California by the noted UFOlogist, Frank Stranges. There were about forty attendees, one of whom was arguing most vehemently as we entered the room: 'I'm telling you right now: gray clones have *no* genitals!'

A stocky, bearded gentleman played a few wheezing strains on a feeble harmonium (decorated with a water-colour of Jesus descending from a flying saucer) and we settled into rickety folding chairs. The lights dimmed and Frank Stranges, PhD (President of the National Investigations Committee on UFOs) took to the podium. (Frank is, incidentally, a very nice man, and for \$25.00/\$30.00 foreign, you can join NICUFO and receive the *UFO Journal* magazine. For \$60.00 per year you can also get the *Inter-*



Space-Link-Confidential-Newsletter.)

NICUFO purportedly maintains one of the world's largest collection of UFO films, slide and tapes. After a brief introduction and welcome message, we were shown a short film, mostly consisting of incoherent ramblings about the space brothers and shaky, grainy clips of hubcaps, headlights and other discs. We saw radar blips, more watercolour paintings and an assortment of shining objects in the desert. One looked a lot to me like a deflating mylar balloon, another like a child's toy spaceship abandoned in a field. This was getting sad.

Dr Stranges resumed the podium and answered questions on any UFO conspiracy topic for about an hour. He told one story with dramatic emphasis about how he once mistook an old, silver aluminium five-wheel trailer in the Mojave for a crash-landed UFO, and how this was a crushing blow to him after a trek across the desert in 100-plus degree heat.

Pausing at one point, he hinted at another unpleasant experience he'd had many years ago in White Sands, New Mexico. This time, it was with the ominous 'Men In Black', who in UFO lore, are feared as the malevolent KGB of the Unexplained. He didn't really say much that was clear about the incident, but it involved a top-secret landing strip in Idaho and something about life-sucking invaders.

Precisely at this point, myself and my two pals realized that we had turned up at this NICUFO meeting both uninvited and un-announced, and all just happened to be dressed in, you guessed it: black. (No secret meaning here, we're just clueless musicians.) Forty UFO investigators, first division, turned around to scrutinize us in our chairs. Sweat beaded on my humanoid forehead. Frank Stranges looked straight as a laser in our direction, and thundered out: 'BELIEVE ME. YOU DON'T WANT TO FOOL WITH THE MEN IN BLACK.'

The MIB, we learned, always wear black, drive black cars and fly around in black helicopters. Their job is to terrorize people with information and prevent them from telling the truth about UFOs. They're probably not of extra-terrestrial origin, but are doubtless in league with the government and other dark forces (Orions, Blue Star Warriors or reptilians from Draco, bent on world domination) to keep us trapped in this dimension.

In any case, it was time to bid adieu to this bunch, and we vaporized out the back door. Dr Frank Stranges' final words drifted over us: 'Thanks for stopping by, guys.' As if we'd just fallen in through some galactic wormhole.

Back in Seattle, things were heating up, and the Birthday Girl addressed me like a hall monitor: 'I cannot believe, I never knew that you could be so rigid in your views. You won't even admit for a second that UFOs might exist! Why won't you at least concede that there could be life on other planets? Won't you at least admit it could be *possible*?'

There was no escaping this one.

'Yes, I admit that's a possibility, though there is no evidence for it.'

'Aha!'

'But look, really, I suppose there might be bacteria or lichens or fungi growing somewhere. And I tend to think

that if these life-forms you believe in really do exist somewhere, and that if they are capable of building machines that travel through space and time with ease, then if they were going to build flying saucers and travel light years to get to our neighbourhood, we could reasonably expect them to stop and say hello and make themselves evident, or at least leave a bag of rubbish behind.'

'Maybe they think we're just not evolved enough for them.'

'Oh, so there is logic here. You think they'd come all the way from Arcturus just to make spirograph patterns in the weeds and stick probes in people's bums?' You think that's evidence of a highly evolved culture?'

'But how do you explain what we saw? I know we saw something that did not behave like any normal aircraft. It hovered and zig-zagged and then took off like a, a . . .'

'Helicopter?'

'Except, I know it wasn't a helicopter, because sometimes the wind would shift and sounded like a jet engine or something like that.'

'I would guess you were looking at a jet helicopter. The military uses the Salisbury plain for manoeuvres constantly, and it doesn't surprise me that you could see something similar in that area. And like all aircraft, they have lights on them. Or, you may have been looking at a Harrier. 'Who knows? Maybe it was a tractor on a hillside.'

'What's a Harrier?'

'It's a Vertical Take Off and Landing aircraft used by the military; it hovers and spins, goes straight up and down and screams off just like a modern jet fighter, which it is.'

Now it was deathly silent in the room, and I felt like the parent who had just revealed to their child that Santa Claus and Daddy looked a lot alike. 'What about all the literature—*Communism* and *Interrupted Journey*, and the UFO Crash at Roswell? I read those books, and I think they may be true—I mean, there's no way of knowing, is there?'

'Popular fiction and hoaxes. Writings by wackos. A few facts to prop up bad science fiction. No, I'm very sorry to say this, and I must seem very rude, especially talking like this on your birthday. I do not accept that flying saucers, aliens, inter-galactic channellers, ancient astronauts, emissaries from a lost civilization, or a cleansing force beam of cosmic awareness has ever visited Roswell, or anywhere else on our little rock in space. I think it's all *crap*.'

What amazes me most, is that we aren't more struck by the sheer magnificent wonder of things as they truly are, rather than wishing upon a star.'

'You really can be a pain in the ass.'

'Sure that's not an alien probe?'

They gave up on me, collectively realizing that I was a hopeless, incurable cynic. Someone brought me birthday cake, probably just to shut me up. It was a magnificent chocolate and mocha wonder, the kind you can only get here. At least they let me eat at the table; after all, I have the best friends on Earth.



Bill Forth is a musician living in Los Angeles.

Is There Really Anyone Out There?

Mark Lawson

The search for intelligent life in the universe

Despite all the work of people like Von Däniken and the myriad claims of abduction by UFOs, we have yet to come across any evidence of intelligent life outside Earth.

No matter where we look in history, archaeology, and into space with powerful radio telescopes there is nothing that even hints at non-human intelligence. No ancient structure that may have been built with still unknown construction techniques, no traces of a long-abandoned space base, no fossilised integrated circuits, no historical records of the sudden arrival of superior beings, no obviously artificial radio signals from distant stars. Nothing.

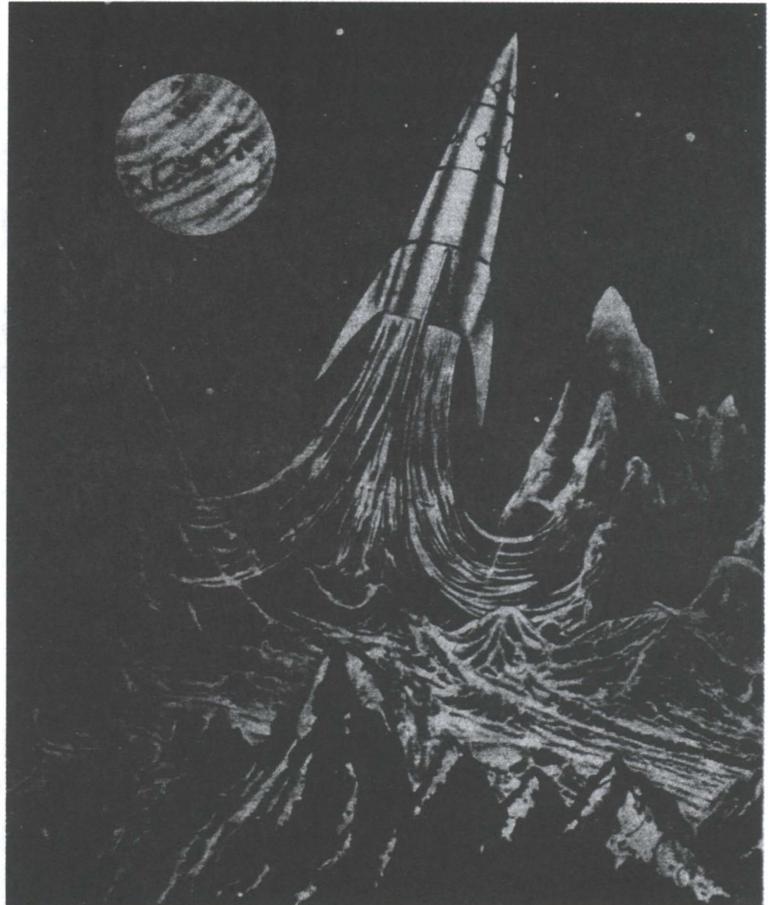
So where is everyone? Pre-humans probably started the long march to human-hood when the ice-ages began about 2.5 million years ago; writing in its most basic form is, perhaps, 5,000 years old; the industrial revolution is close to 200 years old and CDs have been a consumer item for about a decade. But none of those times mean very much when compared with the (to adapt a phrase from the *Hitchhiker's Guide to the Galaxy*) Mindbogglingly Long History of our Galaxy. The Earth is thought to be four billion years old; our galaxy 10–15 billion.

So one would think that if intelligence had arisen elsewhere, the creatures concerned would have had time to come calling, even given the vast distances involved.

Interstellar travel is indubitably difficult. Amongst other problems, interstellar dust is a major hazard for a craft travelling at 10 per cent of the speed of light; voyages will take at least several decades one way; and very special techniques will be required to transmit data back to earth. But despite those problems there does not seem to be any fundamental barrier to long-term robot missions, along the lines of the very successful Voyager missions.

Yet despite the comparatively primitive technology involved in the exploration of the galaxy, and the fact that any alien intelligences are likely to be well in advance of us (for the simple reason that they couldn't be far behind, on geological time scales, or they wouldn't exist at all); we have heard nothing.

Science fiction contains all sorts of suggestions to get around the stark fact of complete lack of contact. Perhaps the 'others' are waiting until we are more peaceful, or more



Mary Evans

advanced, or they are concerned over the effect contact will have on our own culture, or perhaps they can't be bothered talking to us at all. Perhaps, as depicted in the classic film *2001: A Space Odyssey*, we will shortly trip an interstellar advanced intelligence warning system (in the film, it was an obelisk deliberately buried on the moon by travellers who happened past three million years ago), and a race that visited when we were mere apes will be alerted to the fact that we are now ready for the next step. Perhaps . . .

In fact, it is difficult to think of any adequate reason why an advanced civilisation in this galaxy – the other galaxies are too far away, even in the time frames we are considering – would not at least be able to send robot probes. Unless of course, the 'others' (there must be 'others', somewhere) are so far away that their robots have yet to check out this corner of the universe. Intelligent life may be very rare.

This is not to say that the Search for Extraterrestrial

Intelligence (SETI) programmes that have been in the news of late, and which have been so ably championed by the likes of US astronomer Carl Sagan, are a waste of time. Far from it. They are at least worth trying, even if only to rule out possibilities and, of course, the programme might actually find something – either a genuine other-world intelligence or (somewhat more likely) a so far unnoticed astronomical phenomenon.

NASA gave up its SETI project in 1993, but since then a group of American millionaires have been persuaded to hand over \$12 million (according to media reports) to fund a programme known as the Phoenix project. That project, which is scanning the areas around the nearest 1,000 stars similar to our own sun for radio signals, will also involve the Commonwealth Scientific and Industrial Research Organisation (CSIRO)'s 64 metre radio-telescope at Parkes. The CSIRO will receive around \$2 million (the organisation has also sold some signal analysing equipment to Phoenix) for scanning the 150 or so of those stars only visible from the Southern Hemisphere.

The money for Parkes is useful foreign exchange and, as I have said, there is nothing wrong with a systematic effort to discover near-by intelligent life. But it is worth pausing to consider the alternative presented by the one fact about ETI which we do know. Namely, as there is no hard evidence of contact – notwithstanding the TV show *The X Files* (an excellent series, incidentally) and innumerable dubious abduction stories – we may well have to face the universe, or at least this galactic cluster, alone.

This is hardly a new consideration. The nuclear scientist Enrico Fermi was amongst the first to point the problem out in 1935 ('Where are the extraterrestrials?') – since then it has been called the Fermi Paradox – but it is also a fairly bleak line of thought that make this writer wish for a confirmed contact. (As an SF fan I also resent the fact that physics does not allow for a handy faster-than-light drive.) In addition, the conclusion runs contrary to much of science since Copernicus showed that the earth moved around the sun. Subsequent scientific discoveries have since emphasised how ordinary and remote our own star is, and how the human race is just another species of animal that somehow became self aware.

But the possibility that humanity might be almost alone does not imply some sort of divine guidance – that humans, as such, are the chosen ones – it may still all be the result of dumb luck. After all, we are able to question our existence because we did pick the lucky number in the lottery of intelligent life. All the other entrants never even knew the contest was on because they did not win – if you see what I mean.

How did we win? Again, it's very difficult to say, as there is only one fact to work from, but as we are deep into speculation anyway a few more guesses will not hurt.

The first stop in the tour of possibilities is the question of how many other planetary systems there might be, and the best guess is a great many. The only confirmed planetary system to date is known to revolve around – of all objects – a millisecond pulsar labelled B 1258+12, 1,400 light years from earth. Inferred from measurements of faint wobbles in

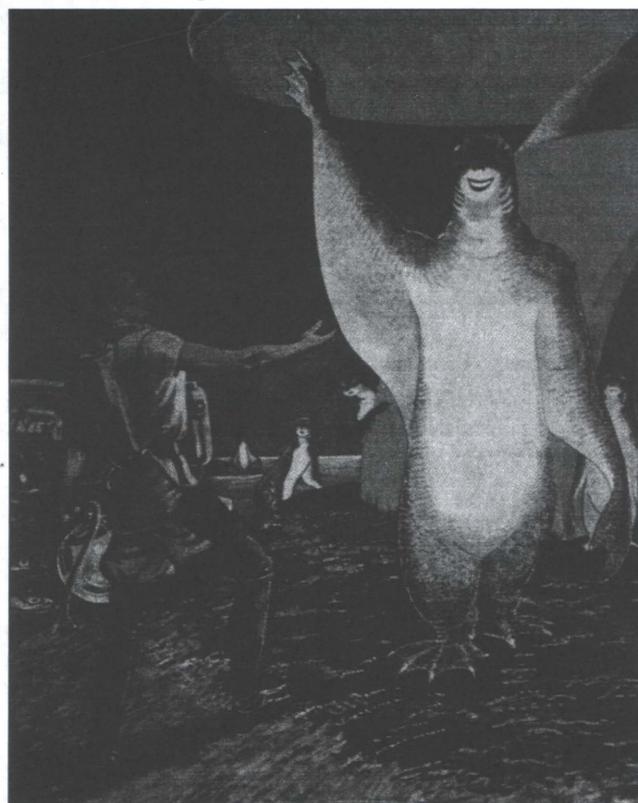
the pulsar made by Dr Aleksander Wolszczan of Pennsylvania State University, the planets could not support life.

After observing tiny changes in position and velocity in other stars, scientists suspect that a number also have sub-stellar companions (i.e., planets), but detecting a planet even the size of Jupiter at interstellar distances is so difficult that no announcement has been made. The calculated masses of the inferred planets are also so large that it is possible the scientists are observing a double star system where one star did not make it into the stellar class. (See 'Worlds Around Other Stars', *Scientific American*, January 1991.)

Other, smaller, pieces of evidence for the existence of other planetary systems, are the mini-systems of moons orbiting the giant planets of Jupiter, Saturn and Uranus. The spacing of orbits of the moons in the gas giant systems also follow a sequence similar to the Titus-Bode law (better known as Bode's law) for the planets of the solar system, where the orbital radius of each planet is 1.7 times that of its inner neighbour. (The sequence is very rough and breaks down at Uranus.)

With planets and moons apparently forming regular systems so readily, planetary systems are likely to be reasonably common. However, it is difficult to make any estimates about frequency of occurrence of such systems as the present disk model of the solar system, so lovingly quoted in basic astronomy text books, is entirely useless for making predictions.

All the new observations made by Voyager I and II came as a complete surprise to scientists – a point I observed directly as a science journalist at the time of the Voyager II encounter with Uranus. Also, computer models devised using the disk model are so useless that, among other problems, they cannot explain Mercury. (See *New Scientist*, 'Mercury, The Impossible Planet', June 1, 1991.)



Mary Evans

As Mercury fits in with the pattern of Bode's Law noted above, and that law also predicted the existence of the asteroid belt between Mars and Saturn, the disk model's failure to explain the planet's existence should lead to it being dropped. But scientists have apparently not been able to think of anything better, so the disk theory has survived. One alternative model offered by Dr Andrew Prentice of Monash University does have considerable predictive success but is howled down by other researchers in the field, because they don't like the mechanism it uses.

Whatever a layperson may make of all this, there seems to be little doubt that planetary systems are reasonably common. Systems must then exist in this part of the galaxy with the right-sized planet at the right distance from the sun and – a recent suggestion – with a Jupiter-like gas giant in the array of planets to attract most of the system's stray comets. Otherwise major comet strikes of the type that marked the end of the Cretaceous age (although whether the collision actually wiped out the dinosaurs is another question) would become too regular to permit life to evolve.

The incubating planet may have to be in exactly the right place in relation to its own sun to achieve the right beach weather, but a perhaps far more crucial starting condition is that the planet must also have a hot core.

Of the four dwarf planets (Mercury, Venus, Earth, Mars) the earth is the only one with a strong magnetic field – a much stronger field than would be expected by comparing magnetic fields with size and distance from the sun, for all the solar system's planets out to Uranus. As that magnetic field is generated by magnetic currents deep within the earth's nickel-iron core, the comparison indicates that our planet has an unusually hot core.

The strong magnetic field resulting from that hot core is useful in holding the all-important ozone layer in place to protect surface life from ultraviolet light, but a more important result is that the planet possesses considerably more volcanic activity and more plate tectonics (continental drift) than the planet might otherwise have been expected to possess.

That volcanic activity, particularly fierce when the earth first formed, sustained Earth's initial atmosphere of carbon dioxide long enough for organisms capable of generating oxygen to evolve. Without that additional CO₂ from volcanoes, and as occurred on the volcanically less active Mars, the carbon dioxide would have dissolved into the proto-oceans and the rocks. Stripped of its atmosphere, the earth would then have frozen. This now widely accepted point only came into focus after recent, detailed exploration of Mars.

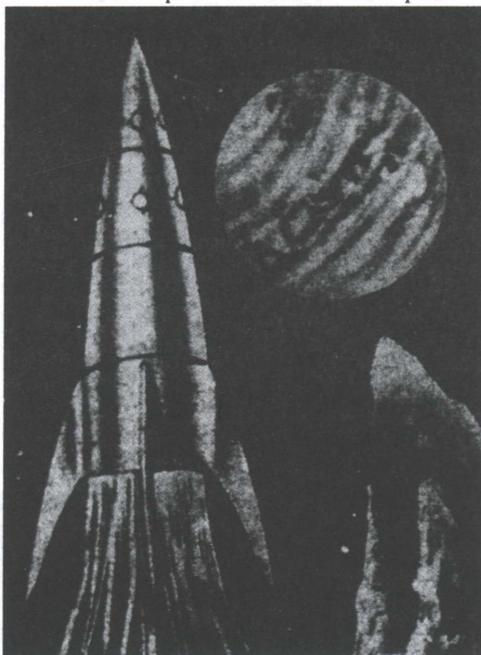
Aside from the additional volcanoes, the hot core combined with a (comparatively) thin, light outer skin of rocks resulted in a continually moving series of tectonic plates,

with the plates grinding together in some places and opening up to allow fresh surface rock to develop in others. Just what happens when one plate is pushed under (subducted) another plate is still a matter for debate. (For a recent, major contribution on the mechanism of subduction, see *Nature*, March 9, 1995 pages 115 and 154.) But the results include further volcanic activity, as well as the creation of mountain chains and ocean basins.

Changes in continents have effects well beyond the creation of interesting scenery. The uplifting of the Tibetan plateau and the Rocky Mountains, for example, are thought to have changed climatic patterns but in what way and when are still matters for debate. A minimum age on the rise of the plateau of 14 million years was announced only in March (*Nature*, March 2 1995 pages 17 and 49).

Changes in climate and the separation of gene pools caused by movements in the crust are, in turn, thought to be major influences in the long evolutionary struggle.

One example of that effect, and one that is now also



reasonably well accepted, is the creation of the rift valley in Eastern Africa, which started opening up about 20 million years ago. The rift, a substantial natural barrier to the movement of animals, separated a distant ancestor ape into two groups operating in different types of terrain.

For various reasons not fully understood, after the earth's climate turned distinctly colder 2.6 million years ago (in archaeology and palaeontology, dates are vague and variable), the Western side of the rift remained jungle and the ape species on that side evolved into Chimpanzees. The apes on the Eastern side, in quite different terrain tending towards open savanna found it easier to walk between groves of trees. Some other event, possibly more volcanic activity (see 'Where Humans Began', *New Scientist*, June 4, 1994) gave that ape yet another push to evolve into *Homo Erectus* and *Homo Habilis*.

All of the above is still very much a matter for argument (scientists, please don't jump down my throat), but it can be seen that there are big advantages in having a hot core. The resulting constant shifting in continents and climate means that the evolutionary dice were constantly re-shaken and thrown until they hit on the right combination for intelligence. South America had just as many ape species as Africa at the same time, incidentally, but the conditions for intelligence occurred only in the geographically more diverse Africa.

So why then is the earth's core so hot? One suggestion that seems to make sense has been made by Jerome Pearson, chief of the structural dynamics branch at the US Air Force Flight Dynamics Laboratory. In an article in *New Scientist* ('The lonely life of a double planet', August 25, 1988) Mr Pearson pointed out that the earth-moon combination is, in

fact, closer to being a double planet than any of the planet-moon combinations we can observe in the solar system. The moon is much larger, when compared with the earth, than say Io compared to Jupiter or Titan to Saturn, while the two moons of Mars are little more than orbiting rocks.

Pearson suggests that our near double planet combination may be the result of a mischance during the last stages of the formation of the earth – a mischance that is likely to be extremely rare. The earth and the moon were originally meant to be one large planet but somehow narrowly missed one another to form a double planet with the earth as the senior partner. There are competing theories on how this mischance occurred that are not worth repeating here – the theoretical confusion may be a result of our present, very poor understanding of solar system formation – but it is known that the earth and the moon are related.

Once the mishap occurred, and as is widely acknowledged, the moon started orbiting very close to the earth, raising huge tides on both the earth's surface and, effectively, in its molten core. The resulting gravitational poking and prodding of the core resulted in extra friction which heated the core well beyond what would be expected for a planet of its size. The rest, as they say, is history.

The result contrasts sharply with Mars which has very thick tectonic plates that now do not move at all. Without that movement in the crust volcanoes over the planet's surface hot spots, notably Olympus Mons, have grown to enormous sizes. Earth has similar hot spots, but as the plates have kept moving the spots have produced chains of

volcanoes.

All the above is, of course, little more than a chain of speculations on why we have not yet encountered other forms of intelligent life. Until astronomers have cleared up a few of the uncertainties by directly observing a few planetary systems, or an alien race or two drops in for tea, such speculation is little more than an interesting waste of time.

But speculation or not, the conclusion is depressing. What happens if there is no-one else and all there is to being human is to live out an existence in a tiny speck of the Cosmos?

The best reply I can give is to quote that well known American sage and philosopher Woody Allen, when he answered a somewhat different question, in the film 'Hannah and her Sisters'. In that film Allen plays a Jewish television producer hypochondriac struggling to find the meaning of life. He finally realises, while watching a Marx Brothers film, that perhaps the answer does not matter.

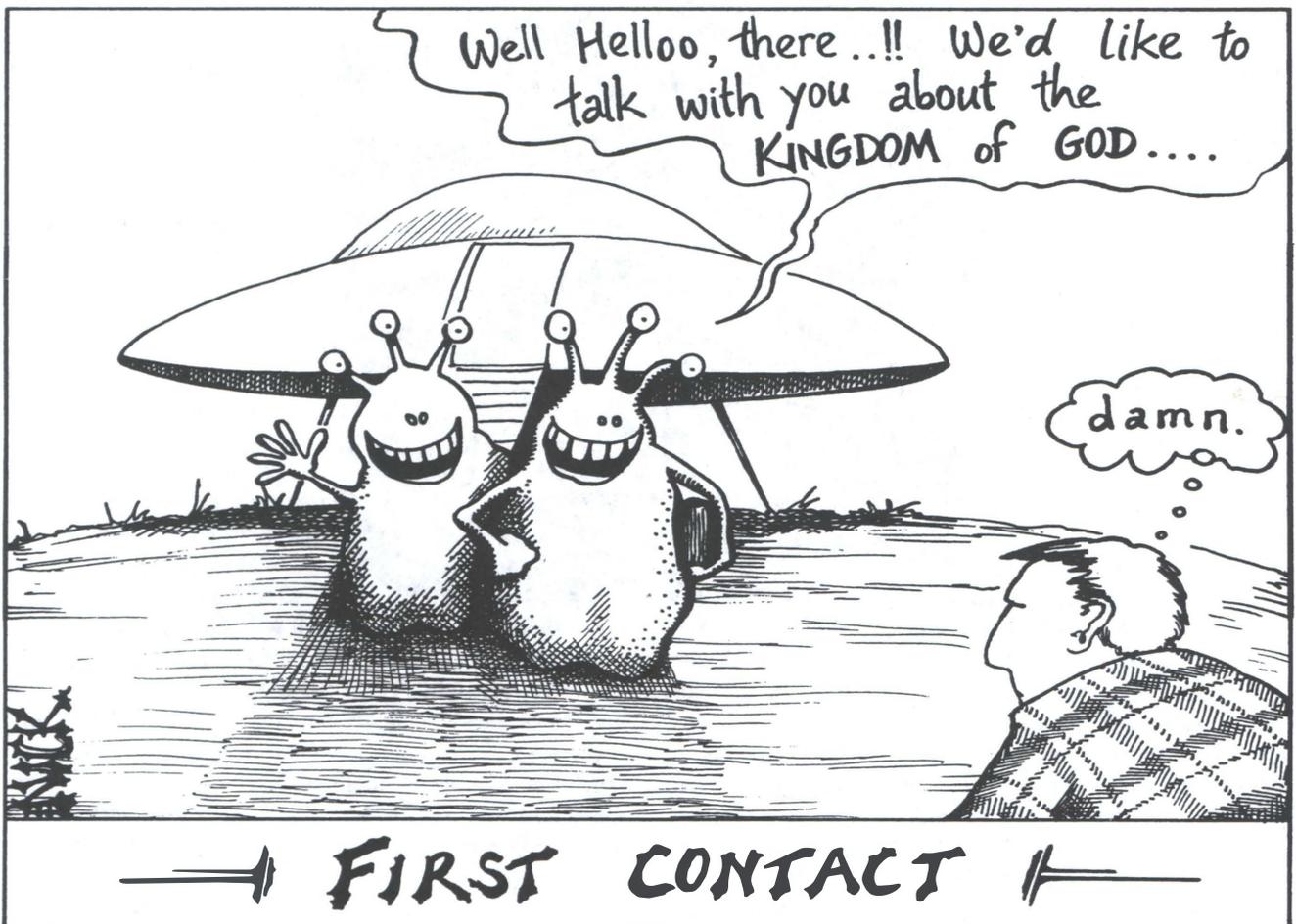
'What if the worst is true?' says his character.

'What if there's no god, and you only go around once and that's it. Well, you know, don't you want to be part of the experience? What the hell, it's not all a drag.'

'I should stop ruining my life searching for answers I'm never going to get, and just enjoy it while it lasts.'

Mark Lawson is a journalist on the *Australian Financial Review*.

This article originally appeared in the Australian Skeptic, and is reprinted here with kind permission.



The Amazing Dummy Pill

Edzard Ernst

The perennially popular placebo effect

Physicians use it more than any other therapy, yet they are barely aware of it, feel uncomfortable to discuss the issue, and rarely conduct focused research on the subject – we are, of course, speaking about *placebo*. Before powerful and effective drugs were beginning to emerge some hundred years ago, doctors relied almost entirely on the amazing effects of placebos, and at all times they falsely attributed any therapeutic success thus achieved to the specific actions of their prescriptions. The fact that placebo effects are part of the response to (almost) any treatment was pushed aside; to knowingly give placebos to the ill was often equated with quackery. For a long time this attitude barred the systematic investigation of the phenomenon.

So what is a placebo? It used to be described simply as ‘make believe medicine’ or ‘medicine of convenience’. Today there are numerous elaborate definitions but, to keep it simple, it can be described as the *form* of a therapy without its *content*. The term placebo-effect is often used as a synonym for nonspecific effects of therapy. Yet placebo-effects don’t require placebos nor any therapy at all; the mere intention to treat a patient, to talk to him/her or to attempt a diagnosis will usually result in some effects, even without the prescription of a dummy pill.

Most physicians have amusing stories about placebo effects. Mine dates back to the days when I was still at medical school. I had been taught to wire up patients for electrocardiograms (a diagnostic test to monitor the electrical activity of the heart). After I had finished the ECG of one of my first patients, an elderly lady, she gave me a tip (the first money I ever earned in medicine!) and said with a smile ‘Thank you, that was great, I feel much better, all my pain has gone’.

It would be fascinating to define why placebo effects are sometimes powerful and on other occasions almost totally absent. This seems to depend on the *type of treatment*; an

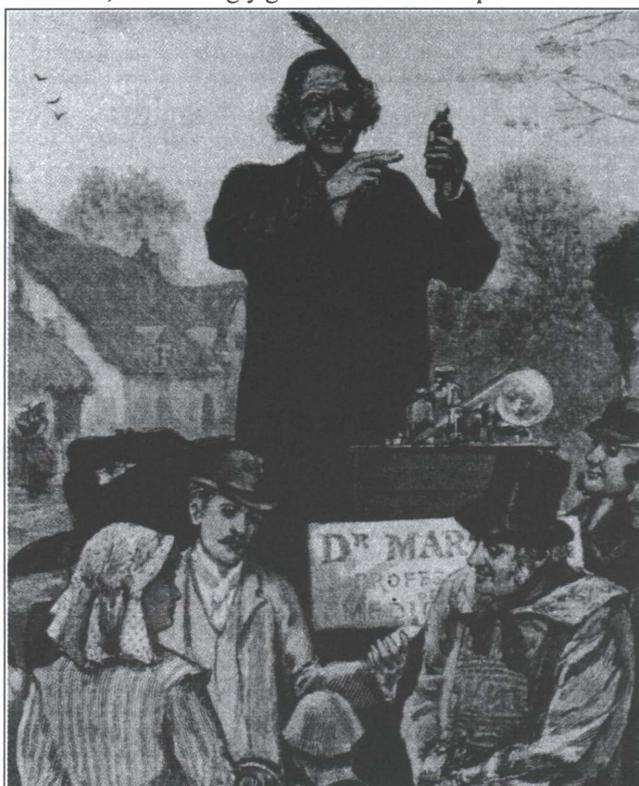
invasive or in other ways impressive procedure is likely to induce stronger effects than a pill. My patient was obviously impressed with the ‘high tech’ atmosphere of being wired up to a sophisticated piece of equipment. There are studies showing that sham surgery (opening the skin without doing the actual operation) can bring relief to 100% of the patients. Surgeons won’t like this, but surgery invariably comes with a complimentary (e or i?) powerful placebo response. Acupuncture is another example: it is invasive in that it entails puncturing the skin, and some trials show that close to 100% of pain sufferers benefit from a sham-acupuncture

where needles are stuck into non-acupuncture points. Other studies show that the size and the colour of a dummy pill will influence the effect it has on volunteers.

Furthermore the response will depend on *the patient*. The higher the expectation, the stronger the effect. Obviously the elderly lady in my story was full of expectation. Involving the patient in the therapy will also enhance the placebo-effect. In a controlled study on patients with varicose veins our team has demonstrated that a placebo pill is less beneficial than a placebo-cream; the cream has to be rubbed on to the skin and the patient therefore gets actively involved in the treatment which in turn seems to yield a better outcome.

The expectation of the *doctor or therapist* is also crucial. It will determine the interaction with the patient which conceivably influences the therapeutic success. When I did the ECG I certainly tried to make up with kindness and understanding what I lacked in experience. Some studies show that doctors who believe in a given remedy have more success with it than those who are more sceptical about it. Similarly, a positive encounter with the patient has been shown to increase the success rate by as much as 100% compared to a negative one.

The *nature of the condition* being treated is another potential factor. It is often believed that placebos affect only



subjective parameters like pain, anxiety or well-being. This is not quite true. Numerous studies show that objective variables like blood tests, postoperative tissue swelling, body temperature or the healing of wounds are also placebo-prone. Yet certain conditions tend to respond better than others – premenstrual tension, depression, sleeplessness, migraine or other types of pain are complaints that usually respond well, but there is hardly any disease or symptom that yield no response at all.

At present we do not fully understand all the influences on the placebo response nor their possible complex interactions. There are simply too many unknowns. One large multi-centre study, aimed at pinpointing them more closely, showed that the most important determinant was ‘the centre’. In other words, even within one single study there are remarkable variations from site to site, and we cannot define exactly why there are differences from one setting to another.

In the early 50s, Beecher analysed several placebo controlled trials in a paper that became most influential and concluded that, on average, one third of all patients responded to placebo therapy. This led to the misunderstanding that placebo effects contribute about 1/3 to the total therapeutic response. Again this is not true. Beecher’s figure was an average, but the range can be virtually from 0 to 100%.

Some researchers also postulated that there is a certain type of personality which can be called a ‘placebo-responder’. False again! Research over the last decades has failed to identify psychological traits characterising responders as opposed to non-responders. The individual who shows a reaction to placebo today may, under different (or even the same) circumstances, not respond tomorrow and vice versa. A French researcher recently demonstrated this in a trial aimed at testing whether homoeopathy was more than a placebo: in the first phase of this study all patients with premenstrual tension were treated with placebo. 22% responded positively; they were excluded from the second, placebo-controlled part of the trial in an attempt to exclude ‘placebo-responders’. Yet no less than 75% of those included into phase 2 and treated with placebo responded positively. It is therefore not possible to identify ‘placebo-responders’ as a distinct species.

A further misunderstanding claims that ‘it is all in the mind’. This notion is made unlikely by a number of facts. Pharmacologically placebos behave much like drugs; they elicit dose – and time-dependant effects, and placebo reactions can cumulate just as one would expect after administering ‘real’ drugs. Moreover, as mentioned above, placebo also affect objective signs – anything from cholesterol levels to hair loss.

Having established that placebos are potentially powerful – we might ask whether they can also cause side-effects. Adverse reactions to placebo, often termed nocebo-effects, are well known. On average some 20% of healthy volunteers and 35% of patients report side-effects after placebo pills; the variation is large – again probably ranging from 0 – 100%. Many placebo-controlled drug trials show that the nocebo-effects, seen in placebo-treated patients, behave in parallel with the side-effects of those receiving the experi-

mental treatment. If, in one trial, a drug is tested that caused headache, the placebo group too will frequently report headache. If, in another trial, the experimental drug causes loss of appetite, the same symptom will be prevalent in the placebo group. We cannot be sure at present why this is so – possibly there is some (nonverbal?) communication between these groups but other factors may be involved as well. The notion that nocebo effects are always mild and therefore not really important are refuted by those who view voodoo deaths as a strong nocebo reaction and proof to the contrary.

Psychologists, physicians and other professions have repeatedly tried to identify the mechanism by which placebos work. Several theories have been developed; they range from alterations of the endorphin levels in our brain to the theory of cognitive dissonance. Interestingly the endorphin theory finds some support from rare cases of ‘placebo-addiction’ that have been described. When there was previous exposure or experience, like in most cases (who has never been medically treated?), classical conditioning may also come into it. To date, these theories remain unproven and we cannot really tell what exactly happens. Common sense tells us however that expectations and suggestions play a prominent role, and so does a certain degree of anxiety associated with almost any medical treatment.

After a flurry of interest in the 1950s, research into placebo became almost an exotic sideline of medical research. Most researchers saw the placebo-effect as the ‘background noise’ in a clinical experiment, a nuisance that was not to be researched but accounted for through adequate study designs and controls. This attitude is presently changing. Some physicians now remember just how beneficial placebos can be in their daily practice and aim at optimising rather than suppressing it. If a doctor doesn’t elicit a powerful placebo response, they say, he/she has chosen the wrong profession. Others still have conceptual problems with this notion and fear that knowingly prescribing placebos means ‘cheating’ the patient. Yet surveys show that placebos are popular; around 80% of nurses, for instance, state that they have used it at some time or other.

The totality of the evidence available today leaves no doubt that placebo effects help many patients every day. They are complimentary with virtually every medical treatment we may receive. Instead of ignoring this, taking it for granted or feeling embarrassed about ‘placebo quackery’, physicians and scientists might consider finding out more about the phenomenon in order to better serve the patient – after all, ‘placebo’ means ‘I shall please’.



Professor Edzard Ernst is Director of the Centre for Complementary Health Studies at the University of Exeter.

Names To Conjure With

Russell Dear

They don't name medicines like they used to

TURLINGTON'S *Balsam of Life*, Dalby's *Carminative*, Steer's *Opodeldoc*, Bateman's *Pectoral Drops* — names to conjure with, to roll around the tongue. New oral sensations signifying artifacts of a bygone age, ones that highlight the gullibility and greed of earlier generations. Patent medicines.

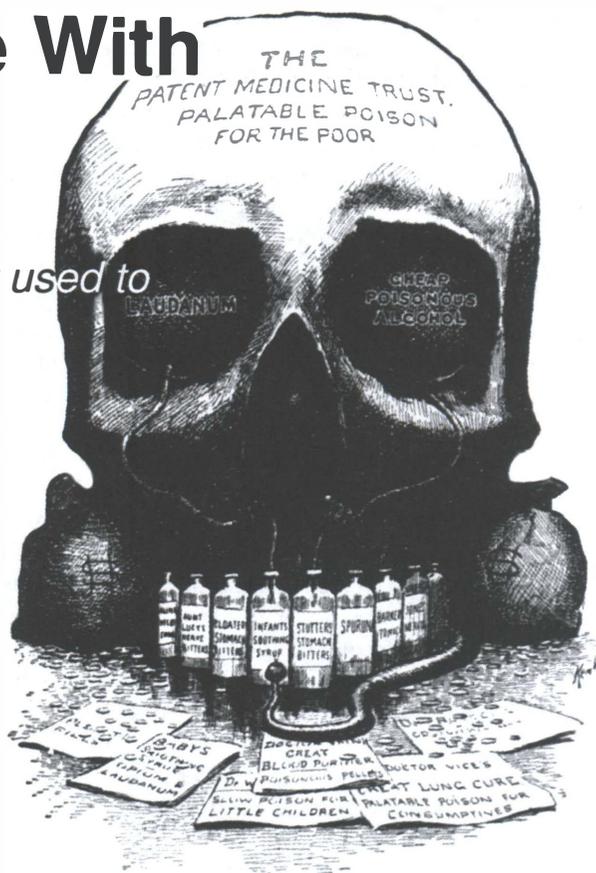
Over 200 patent and proprietary medicines were available to the sick in Britain by the mid-1700s and, judging by the empty bottles found in many parts of the United States today, some were popular enough to be known in the American colonies. In its advertising, Dalby's *Carminative* was described as 'one of the best things for the flux'. In the 46-page booklet Robert Turlington issued in 1747 to promote his *Balsam of Life* he writes:

It is a perfect friend of nature which it strengthens and corroborates when [you are] weak and declining. [It] vivifies and enlivens the spirits, mixes with juices and fluids of the body and gently infuses its kindly influence into those parts that are mostly in disorder.

Such claims were obviously believed by many: a Turlington bottle, for example, was found in an Indian grave in South Dakota [1].

Things don't change. For centuries people have looked for quick cures for all that ails them, and the more exotic the name of the cure and the more extravagant the claim for its efficacy, the more likely it seems that people will buy into it. GH3X, Matol K^m, Vitamix Nutritional Extract, and craniosacral therapy are just some of the many contemporary examples [2]. Bottle collectors will be more aware than most of the range of patent medicines available in earlier years. Good collections of old bottles provide a social history of the era, a glimpse into the murky past of nefarious dealings by greedy entrepreneurs out to make a buck at the expense of the sick and gullible. We shouldn't feel too smug about that. Desperation and gullibility often go hand-in-hand.

Such was the need for cheap medication in the eighteenth and nineteenth centuries that by 1870 at least 40 thousand patent medicines were on sale in the USA, with an annual turnover of 80 million dollars. John Tasker has suggested that the spread of patent medicines may have its roots in the three obsessions of medieval alchemists: turning base metals into gold, finding a universal panacea for human ailments, and discovering the elixir of life, eternal youth [3]. Whatever the case, by the late sixteenth century all efforts were concentrated on finding cures for illness.



Early attempts at making medicines relied on ingredients such as alcohol and opium flavoured with herbs. They were distributed in small glass bottles with dosages and instructions hand-written on paper labels. The idea caught on quickly and it wasn't long before people became aware of the large profits that could be made from producing medicines made up of a few simple ingredients. By the mid-seventeenth century the first chemist shops appeared devoted almost exclusively to selling patent medicines and cure-alls. It must be remembered that at this time home remedies were the norm — only the rich or titled could afford doctors. As John Tasker puts it:

The market was wide-open for exploitation at a time when ethics and professionalism didn't account for much. The age of quackery had dawned. All you needed was a smooth tongue and a few pounds and you were in business. [3]

At about the same time the introduction of regular newspapers and the consequent opportunity of cheap advertising gave a boom-time to the medicine business. Here are some of those ads:

Bumstead's Worm Syrup: One bottle has killed 100 worms. Children cry for more. JUST TRY IT.

Fellow's Syrup of Hypophosphites: A cure for softening of the brain. Good when you're feeling overtaxed, it supplies the material for thought.

Dr Daffy's True Elixir: The most beneficial cordial in the world and sovereign remedy to most distempers incident to mankind.

Mrs Winslow's Soothing Syrup: The ideal physic for fretful babies.

Clark's World-famed Blood Mixture: A never-failing and permanent cure for scrofula, scurvy, skin diseases and sores of all kinds.

Some of these worked well, at least in the short-term. With medicines containing opiates and other hard drugs many people became addicted to them while searching for cures for toothache, back-ache, and the like. Is it any wonder that children 'just cried for it'? After a few bottles of worm syrup they were hooked and suffered withdrawal symptoms as soon as the treatment was discontinued.

At about this time too the idea of personal testimonials, still an important advertising tool today, took root. In America, medicine shows were popular. One, the Kickapoo Indian Show, operated by the Kickapoo Medicine Company of Newhaven, Connecticut, recruited Indians to sell medicines claiming they came from the Kickapoo tribe whose secret remedies were bottled by the company. Such circus-type shows drew large crowds and could make thousands of dollars at each performance selling medicines between acts. At the other extreme, single covered wagons travelled the country with individuals hawking all manner of patent medicines.

Bottle collectors will also know of alcoholic beverages masquerading as medicine. To avoid heavy taxes on liquor and as a defence against social reformers alcohol was often sold under the name of 'bitters'. The name originated from the habit of adding bitter tasting herbs to alcohol, often gin, and selling it as a remedy for every complaint imaginable. Just as for patent medicines, extravagant claims were made by companies producing bitters. One insisted its bitters would cure 'the habit of lying', another that their product would restore hair loss. Bitters often contained over fifty percent alcohol. Consumption rose steadily in the US, especially after 1862 when a revenue tax was introduced on whisky and gin to help pay for the civil war. Classed as a medicine, bitters were exempt from the tax. Millions of bottles were sold by 'foot in the door' salesmen and other shysters until 1907 when the introduction of the Pure Foods

and Drugs Act in the US knocked the trade on the head. The only remnant of bitters drinking today is among those who drink gin and Angostura bitters, better known perhaps as pink gin:

Although there are prodigiously many patent medicines on sale today, the end of the boom time for these quack remedies occurred in 1905 when Samuel Hopkins Adams wrote a series of articles entitled 'The Great American Fraud' for *Collier's Magazine*. The articles, backed by irrefutable scientific evidence, shocked and convinced the American public that they had been poisoning themselves with alcohol and hard drugs from patent medicines.

Having said all that let's look at a few more of those exotic names:

Rheumo: cures rheumatism and gout.

Dr Lin's Celestial Balm of China.

Steer's Opodeldoc: a speedy and certain cure for bruises, sprains, burns, cuts, chilblains, headaches and insect bites.

Dr F M Clark's Herbal Blood Purifier.

J V Babcode's Gold Medal Sarsparilla.

Hanford's Celery Cure: for rheumatism, neuralgia, sleeplessness, heart trouble, and nervous disorders.

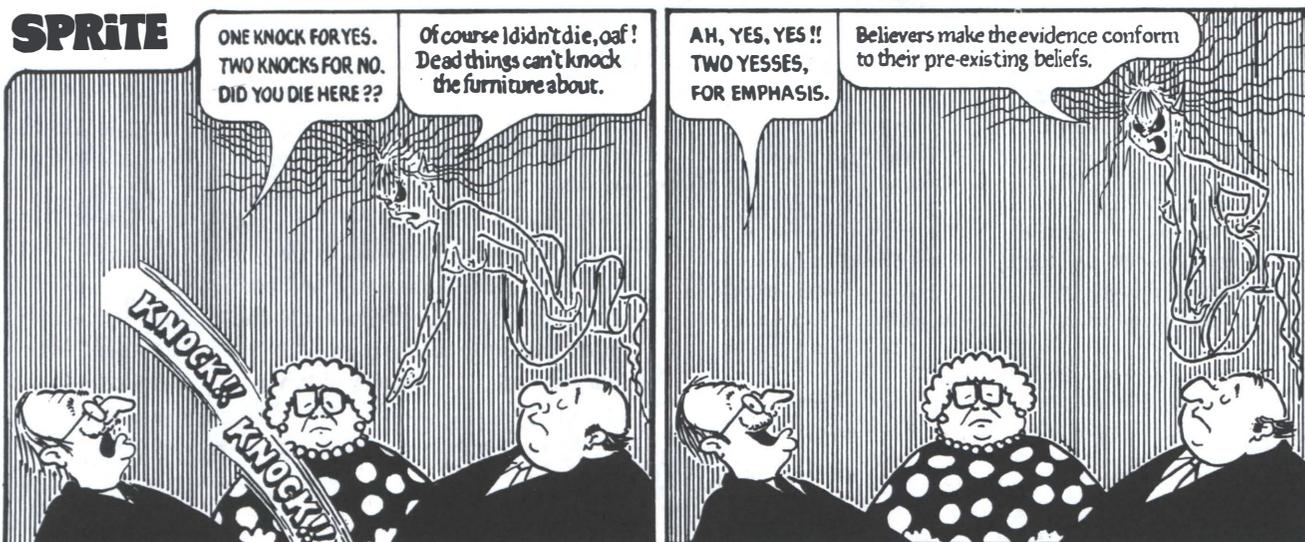
Dr Kilmer's Swamp Root Kidney Cure.

I guess we are all thankful for the advent of scientific medicine. However, as I gaze at my old medicine bottles I can't help feeling that some of the romance has gone from our lives.

Notes

1. Doreen Beck, *The Book of Bottle Collecting* (Hamlyn, 1973).
2. Russell Dear, 'Now and then' (*The Skeptic*, 9.4).
3. John Tasker, *Old New Zealand Bottles and Bygones* (Heinemann Reed, 1989).

Russell Dear is a writer living in New Zealand.





Psychic Diary

Toby Howard

*And in his brain — which is as dry as the remainder biscuit
After a voyage, — he hath strange places cramm'd with
observation, the which he vents in mangled forms*

—As You Like It

I saw my first human brain recently, in the laboratory of a colleague. As he fished it out of a jar, I felt a strong sense of *déjà vu*. It was Hammer Horror: my colleague was Peter Cushing, and I was his slightly dim assistant looking on in amazement. I expected Igor the post-doc to lurch past us at any moment, lispng 'Yeth Math-ter' on his way to the laser printer.

Brains are resplendently ugly things, and it's just as well they're usually tucked away out of sight. Fresh brains, I imagine, may be just slightly less unpleasant than the grey, shrivelled, pickled variety I met in the lab, but so far I have avoided every opportunity to find out. The brain features in pseudoscientific thinking, not so much because of all the wondrous things we know it can do, but because of all the things it *might* be able to do, but which no-one has yet conclusively proven. Telepathy, extra-sensory perception, out-of-body-experiences and so on, are all regularly claimed as part of the 'great unexplored potential of the human brain'. Along with the old 'Did you know we only use 30% of our brain?' nonsense, it is perhaps the sheer mystery of how this lump of gelatinous stuff somehow becomes 'us' that inspires some dissatisfied people to expect it to do *even more* than its normal, demonstrable, miracles.

Mapping the brain in order to understand the specific structures which comprise it and their interconnections is a task of almost unimaginable complexity. Considering it isn't long since people thought personality traits could be read from skull bumps — the British Phrenological Society disbanded as recently as 1967 — extraordinary progress has been made in recent decades. Although structures and regions have been identified which are associated with specific functions, like hearing and smelling, and so on, no-one has yet detected a structure which transmits or receives thoughts, a fact which doesn't prevent some believers in telepathy making statements such as the following:

Vibrational frequency sensitive fibres found (usually) in the brain's right upper parietal lobe detect such [dimensional] energy (you detect telepathy), channel resulting pulses to your brain's frontal lobes via both visual association areas which appear to map in 10 steps (you learn to organise your thoughts in a better way), and the result of such sensory activity is next modelled in some fashion by the frontal lobes of your brain. [From the web page of 'World Wide Commercial Telepathic Mind Networks']

If you feel vibrations in your head, they're more likely to derive from too much whisky the night before, rather than someone calling you up on the Telepathic Telephone.

Claims like this demean the huge ongoing international effort to understand the brain. This is research of immense importance, and great difficulty. The big problem, of course, is that you can't really go messing about with brains when they are alive. One solution is to listen to the brain's electrical activity, and try to deduce what various brain structures are doing in certain circumstances, and why. The traditional picture of the patient wired up like an experimental android to an Electroencephalograph machine (ECG), beside which a rattling pen plotter spews yards of paper, is today uncommon. The modern ECG uses a cap rather like an enlarged *yarmulka*, inside which are scalp sensors, connected to the host computer by a lightweight ribbon cable that rises out of the cap like an unusually long and thin mohican haircut. The computer's hard disk replaces the paper, and the significance of the brainwave squiggles is analysed by software.

At a gross scale, the brain's electrical activity is rather like the static on an untuned radio, but with signal processing it is possible to isolate a number of 'rhythms' such as alpha, beta, theta and mu. Using these waves to control external devices is possible, and researchers have had some success in wiring up the scalp of a subject, who then looks at a computer monitor and is able to modulate his brain rhythm to move graphics around the screen. However, many hours of training are required, and the results are crude. The difficulty lies in detecting the signal buried in the noise, and finding how to teach the subject to modulate the signal. Any thoughts transmitted telepathically would be swamped with irrelevant signals beyond conscious control.

The sheer richness of the dynamically changing information content of the brain seems to me to render the idea of direct inter-brain communication ridiculous. In a science fiction story many years ago, the name and author of which I now forget, I read a convincing argument against telepathy. Evil telepathic aliens conspire to take over the Earth, planning to telepathically invade the Earth-people's minds and turn them into zombies, slaves to the aliens' evil intentions. To prepare the invasion, they abduct a typical human, and spend years analysing her brain's signals until they understand its entire functioning, and can therefore control her directly with their dastardly telepathic energies. But the invasion fails. The aliens didn't realise that we all think differently.

Thank goodness we do.

Toby Howard is a lecturer in computer graphics at the University of Manchester

Skeptic at Large

Wendy M Grossman



Talk-show therapy

I can never decide whether to be happy or furious when I find out that the military establishment has been spending my – or at least, our – money on psychics. The latest biter of this particular walnut is the CIA, which apparently spent untold (until now) millions on various attempts to find out if psychics could assist them in their mission. Why anyone should be surprised, I don't know. Isn't the CIA the outfit that at one stage mulled over the idea of assassination by exploding cigar?

Still: the one thing it really shows is that after a while nonsense does actually matter. If there weren't a steady hiss of flatulent articles and fictumentaries about the paranormal, would these guys have thought it was worth the money?

This may be evidence for a notion I'm pondering, the question of whether trash media has some kind of human function that is evolutionarily valuable. In this case, the value might be diverting resources into harmless pastimes instead of lethal ones.

But trash on a wider scale . . .

In the wake (as I write this) of Princess Diana's appearance on the BBC, repeated on American television the day after Thanksgiving, the second most somnolent day of the year (after Turkey Day itself), I hear that Oprah Winfrey is trying to get the Princess on her talk show. Now, of course the Royal Family is a pseudoscientific institution, based as its status is on the notion that they are somehow genetically set apart from the rest of us. (I feel safe in predicting that when they finish mapping the human genome they will not have found a Royal gene.) And the talk shows actually seem the perfect place for them.

The American columnist Barbara Ehrenreich has astutely commented in a recent issue of *Time* magazine that most of the people who turn up on these talk shows really don't seem ever to have seen their behaviour held up to outside scrutiny or standards. The talk show hosts act as part confessors and part judges. Ricki Lake, for example, who lost weight, got a show, and shot to number two in the rankings or some such, routinely hectors her guests. 'She's your daughter,' she pounded one of her guests recently (on the show about daughters whose mothers put them down because they're fat – a subject on which she quite reasonably has strong feelings). 'You should love her, no matter what.'

Diana and Charles on Ricki Lake would be a sight. 'She's your wife,' Lake might logically say, ignoring the fact that even the least witted viewer will have grasped this

by now. 'Don't you care about her at all? She's the mother of your children!' Diana could be told to think about her children, too, and asked why she's intent on hanging onto this marriage instead of letting it go and finding a new life for herself. She'd probably get some bolstering in the form of a cheers for her having gotten over her bulimia.

Sally Jessy Raphael, on the other hand, would focus on being warm and compassionate; she'd sympathise with everyone. But the show itself is brutal: Diana would find herself on the podium not just with Charles, but also with Camilla Parker-Bowles. Depending how they present themselves and from whose point of view, they could fit into any number of recent Raphael shows – women whose husbands are being harassed by an ex-lover, husbands whose wives are destructively jealous, or even women whose ex-lovers' wives harass them. The participants generally wind up either punching or screeching at each other, but Raphael weeps above it all in red-framed eyeglasses.

They would fit right in, as *Guardian* columnist Simon Hoggart registered when he told CBS news, after one of the Royal dust-ups, that the family was so dysfunctional that if it were living in a trailer park in Virginia the neighbors would have the police out every night.

Ehrenreich also believes that these programs are the exploitation of the poor and deprived by the middle class and comfortable, since you rarely see (except in the case of celebrity guests) anyone else turning up on these shows to sit on the panels. I'm more doubtful about this proposition, since I think if you examine the demographics you'll find that the primary audience for these shows is not the comfortable middle class – except, of course, for journalists paid to write about today's trashy media. And those of us who can't resist the awful spectacle (Sally Jessy Raphael is on Sky One every day at 11am, by the way).

No, my theory's a little different, and it's this: the talk shows are the modern equivalent of Lourdes. The promise they hold out is the instant cure, administered jointly by the show's host and one of a number of resident therapists, who always show up in the last ten minutes of the show to wrap everything up and hand out solutions like so many lollipops. If that's true, than this stuff serves the same need in the human psyche that the promise of instant cures always has.

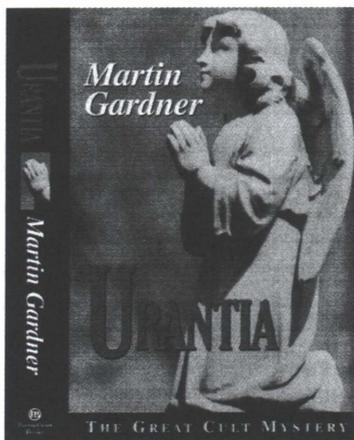
Wendy Grossman is the founder of *The Skeptic*, and a writer and folksinger.

Reviews



U (must) B joking

Martin Gardner, *Urantia: The Great Cult Mystery* (Prometheus Books, hardback, 445 pages, £22)



Robert Benchley once wrote that there are many mysteries which humans have not fathomed, and added: 'Some of them may not even be worth fathoming'. These words occasionally come to mind during Martin Gardner's lengthy, painstakingly researched investigation of *The Urantia Book* and its smallish surrounding cult.

The *UB* was published in 1955 and runs to 2,097 pages of fairly standard holy-book material: an elaborate celestial hierarchy of swarming godlings and angel-analogues ruled by a supreme being ingenuously called the 'Great I Am'; prophecies and revelations; a revisionist life of Christ; and so on. Weird neologisms abound, as in Scientology ('Urantia' is merely Earth), and are gleefully quoted. Outsiders find it odd that some regard the *UB* as validated by its predictions of scientific developments *before* the 1955 publication date. For *UB* fundamentalists, you see, it is an article of faith that the text was finalized in 1934.

The roots of *UB* go deeper, and Gardner relentlessly explores them. In the 19th century we meet Sister Ellen White, prophetess of Seventh Day Adventism (itself a splinter cult formed in the wake of William Miller's dud prophecy that Christ would return in 1844), issuing contradictory decrees direct from God and churning out sacred writings by shameless plagiarism. One disciple, Dr William Sadler, broke loose from the Adventists but ironically – as Gardner persuasively argues – re-enacted White's autocracy and compulsive plagiarism in the *UB* movement.

The story is that the first inklings of the *UB* were 'channelled' during sleep by Sadler's brother-in-law Wilfred Custer Kellogg – a relative of the Dr John Kellogg of bowel-obsession fame, recently portrayed in the movie *The Road to Wellville*, who lurks on the fringes of this story and whose moderately irrelevant health fads earn him an entertaining chapter here. This channelling began in 1911 or 1912, with a spurt in 1923 when Sadler's religious discussion group posed 4,000 questions which Wilfred supposedly answered in a 472-page manuscript dictated by Higher Intelligences

and written out by his own hand while asleep one night.

A cult was born. The divinely authored *UB* continued to grow. Only wicked sceptics would listen to the rumour that mere humans were encouraged to contribute bits, or even lots.

Various text comparisons, discussed here at gruelling length and supported by computer analysis, suggest to the eye of unfaith that Sadler wrote large chunks of *UB* and personally re-edited the entire book. His own writings are visibly recycled, including ugly racist views and a powerful flavour of Adventism. Other contributors pinched material from further afield. The bombshell came in 1992, when the Urantian disciple Matthew Block documented many flagrant plagiarisms in *UB*, including a damning list of platitudes lifted straight from the first 33 pages of one particular dictionary of quotations.

Block's faith was only strengthened by his discovery of the Higher Intelligences' cleverness in using mere human words for their awesome purposes. *UB* fundamentalists are similarly unimpressed by this gospel's scientific deficiencies, also voluminously discussed here. If a prediction is correct, *UB* is confirmed. If something is missing which Higher Intelligences should logically have told us, this is because *UB* does not dispense 'unearned' knowledge (except sometimes): humanity must find out the hard way. Gross scientific errors, like mixing up Fahrenheit and Kelvin for stellar temperatures, are merely 'time bombs' inserted to encourage human self-reliance and stop people treating *UB* as inerrant truth – which some nevertheless do.

Inevitably the *UB* movement suffered schisms. The funniest of these involve the US Urantia Foundation's attempts to preserve rigid copyright control of a holy book whose authors are, officially, intangible astral entities. There's even a punchline: in February 1995, a US judge declared the *UB* to be in the public domain – though why anyone should want it beats me.

Martin Gardner has spent more than forty years boldly attacking the dragons of irrationality; perhaps he's running short of major new targets. The *UB* cult is mildly funny and not detectably life-threatening (the Branch Davidians and Waco get dragged in at one point, but the connection is Adventist, not Urantian). Maybe it isn't funny enough: more than once Gardner feels the need to pep things up by invoking his fictitious numerologist Dr Matrix, to little effect. I *hope* he's joking when he argues – as Gardner, not as the charlatan Matrix – that a *UB* sequence of 7 small numbers, followed after undisclosed intervals by a 6-digit and then a 7-digit number, is an intentional 'signature' of Wilfred Custer Kellogg (7, 6 and 7 letters). This is tenuous to the point of vacuity.

Although *Urantia* contains fascinating and entertaining segments, the sheer weight of lovingly researched, meticulously reproduced documentation forms a leaden ballast to the humour of it all. Better organization might have helped: tighter editing, a subject index to make it usable as a reference work, a family-tree chart to clarify the relationships of all too many Kelloggs.

Ultimately, one can't resist saying, a massive sledgehammer is being brought to bear on a few minor nuts.

— Dave Langford

Psychoanalysis in ruins

Charles Rycroft, *A Critical Dictionary of Psychoanalysis, 2nd Edition* (Penguin, paperback, £7.99)

I confess, I opened this book with a tremor of anticipation. I wanted to see how an experienced psychoanalyst – and Rycroft is that – coped with some of the damning criticisms which have been levelled against the whole idea of psychoanalysis.

Eysenck, years ago, produced a stack of statistics which showed that psychoanalytic patients had no better chance of recovery than untreated people. And Peter Medawar, the Nobel Prizewinner, gave psychoanalysis the most complete condemnation I have seen:

Considered in its entirety, psychoanalysis won't do. It is an end product, moreover, like a dinosaur or a Zeppelin; no better theory can ever be erected on its ruins, which will remain for ever one of the saddest and strangest of all landmarks in twentieth century thought.

With these judgements in mind, I joyfully plunged into the book. What were the criticisms of psychoanalysis promised in the title? Where were the defences, the controlled trials and the cure rates?

I didn't find them. Eysenck is briefly dismissed in the introduction, and so is any idea that this book will defend psychoanalysis against its critics. Instead the aim of the dictionary is to clarify the terms and ideas within one particular sort of psychoanalysis – that of Freud. Adler, Jung and other theorists receive very little attention.

To complicate matters still further, the author admits that even Freudian analysis is split into different factions. He describes them as a hotchpotch of incompatible theoretical systems. As a result, some terms in the dictionary simply do not receive a proper definition, as they have no agreed meaning. 'Classical theory' is one such.

Having said all that, once you accept the limitations, the dictionary seems to work quite well. All the psychoanalytic terms seem to be there, clearly defined where this is possible, and handily cross-referenced. I found myself browsing from one to another learning a little each time: implosion, identity, internal saboteur, super-ego, introjection, and so on endlessly. I was surprised at how many psychoanalytical and psychiatric terms have found their way into the general vocabulary, albeit with different meanings from their specialist ones.

So who would find this dictionary useful? It seems a

fairly small community will be attracted, and very few of them will be skeptics. Buyers will be people interested in (Freudian) psychoanalysis, but not requiring any demonstration of the approach's validity. That's probably a fairly small population. Still, if an *uncritical* dictionary of Freudian psychoanalysis is what you want, this is a well written and well presented piece of work.

— Martin Bridgstock

Chivalry and chutzpah

Courtney Davis (Celtic Art) and Helena Patterson (Text), *King Arthur's Return: Legends of the Round Table and Holy Grail Retraced* (Cassell, hardback, 126 pages, £15.99)

Review for busy people: nice art, shame about the text.

Review for not-quite-so-busy people: as one who grew up on the Arthurian books of Roger Lancelyn Green, Mary Stewart, Rosemary Sutcliffe and others, I've long had an interest in the Table Round and its enduring legends. There is something in these stories which remains timeless and which speaks to us across the ages – love, lust, betrayal, honour, chivalry and that awe-inspiring human chutzpah which inspires defiance against an inevitable and unforgiving fate.

In that sense, I could forgive this book's attempts to describe the symbolism and mythological precursors of the Matter of Britain, were it not for some of the inaccuracies and sheer silliness that keep popping up.

The Celts, a motley band if ever there was one, are treated as a homogenous group, with the Irish Sidhe and the Welsh Pwyll presented as if they are all part of one all-embracing culture. Thomas Malory is said to have resurrected the Arthurian myths when 'it seemed there would be a Welsh dynasty on the English throne'. There was no likelihood of that at the time, with Henry VI, his son and Edward IV all in contention for the crown.

Patterson says that Geoffrey of Monmouth's *The History of the Kings of Britain* is 'compelling reading with regard to the destiny of mankind'. Apparently she is not aware – or has chosen to ignore – the fact that much of the 'history' is myth or outright invention on the part of the 12th century monk involved.

Patterson goes right over the top when she announces that, according to Geoffrey, Merlin prophesied the Channel Tunnel and underwater exploration, with mention of an Atlantean civilisation. Another enthusiast, Elizabeth Jenkins, writing in *The Mystery of King Arthur*, noted of these prophecies that:

Geoffrey seems to have used his usual method of throwing in a small quantity of fact and stirring it up with a great brew of imagination; in this case the result is so tempestuous and unintelligible as to be quite confounding.

Patterson's writing, at least, is not unintelligible, but it is difficult to distinguish between the mythology, history, literature and New Age imaginings which serve to make up the text. It is at its most awkward when she is tying Courtney

Davis' paintings into the narrative:

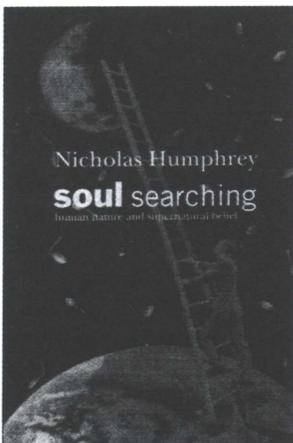
Arthur's solar-ship approaches the portal of time, and the mists of past ages, like waves, engulf his ship as he passes through the galactic vortex back to earth.

It's a shame really, as the pictures are well worth looking at in their own right. They're a nice blend of the *Book of Kells* knotwork, pre-Raphaelite romanticism and stained glass techniques, eminently suited to the subject. They'd make great posters too.

—Vicki Hyde

Unwarranted design

Nicholas Humphrey, *Soul Searching* (Chatto & Windus, hardback, 244 pages, £18.99)



This is an interesting, erudite and reasoned book detailing a skeptic's view of the paranormal. That said, however, it is likely to incur the displeasure of both believers in the paranormal (e.g. those who opposed the author's appointment to the Perrott-Warwick fellowship a few years ago) and skeptics in equal measure. On the other hand, one person who I suspect will be rather pleased with the book is Uri Geller who is dis-

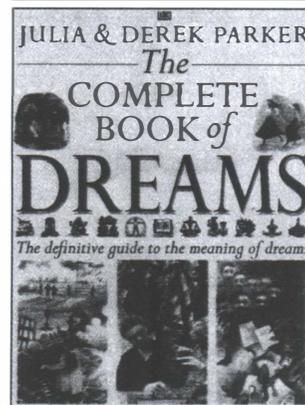
ussed together with Jesus Christ – a fact that may serve also to upset Christian readers. From a skeptic's point of view, I feel that it is a great shame that (as the title implies) Humphrey seems to believe that there is only the dualist view of the paranormal. For him, a search for telepathy, for instance, is synonymous with a search for the eternal soul – a view that I would have thought totally fails to address those parapsychologists who believe that psychic powers are simply an as-yet badly understood part of the natural (material) universe. He makes a nice argument for a criterion of 'unwarranted design' in judging apparently paranormal phenomena: is it reasonable, for instance, within any sensible theory, that psychic powers appear to work best in performing the type of feat that is otherwise performed by a conjuror? This is an appealing criterion but in some ways a dangerous one as many physical phenomena only occur in very specific conditions: without a satisfactory theory to account for the results of many experiments in physics, Humphrey's argument from unwarranted design might also render *them* unbelievable. Even though, overall, I share the author's views on the paranormal I found that other specific arguments in the book were sometimes logically less than watertight but, perhaps more importantly, they were always thought-provoking. I found the discussion of experiments that *inadvertently* test for paranormal ability (eye tests, guessing the phase of the moon and so on) to be of particular interest.

I can recommend this as a somewhat flawed book that is nonetheless very much worth reading.

— Steve Donnelly

All you have to do is dream

Julia and Derek Parker, *The Complete Book Of Dreams: The Definitive Guide to the Meaning of Dreams* (Dorling Kindersley, 206 pages, hardback, £12.99)



Freud has a lot to answer for. In the century since he published *The Interpretation of Dreams*, dream analysis has been debased into a popular form of DIY psychotherapy, and rows of dubious-looking books on the subject are to be found lurking in the 'New Age' section of most bookshops.

The Complete Book of Dreams has little to distinguish it from the pack apart from its

large hardback format and lavish colour illustrations. Beginning with a potted history of dream interpretation, it goes on to summarise scientific explanations of dream activity. These two sections are probably the best part of the book, as they have a wide range of beautiful illustrations ranging from medieval manuscripts to film stills.

The bulk of the book consists of a guide to recording and interpreting one's own dreams and a dictionary of dream images with suggested interpretations and examples. Unfortunately, this is far from comprehensive. My flatmates and I tried to analyse our dreams, but found that most of the things we dreamt about were not listed. But I suppose this may be a reflection on *us* rather than on the book.

It would be interesting to know why the authors think theirs are the 'definitive' interpretations. Why should dreaming of root vegetables allude to ambition (p 55) or dreaming of having a bath indicate 'an all-embracing problem in waking life' (p 146)?

I might have more faith in this type of book if the meaning of dream symbols did not vary so widely from one book to another. I looked up one of my dreams in four different books, and found four different explanations. The more I see of this type of book, the more I feel that dream analysis is best left to psychoanalysts. But then again, I'm skeptical about them as well.

— Chris Willis

Here's a funny thing

Ken Anderson, *Coincidences: Chance or Fate?* (Blandford, 1995, paperback, 306 pages, £9.99)

The author claims that this book, originally published as two volumes, contains the largest collection of coincidences yet gathered in one book. That's as maybe. The problem is, by including as many coincidences as possible we end up with a lot of unimpressive 'anecdotes' that simply tell of individuals who have a job-appropriate name (the most notable being the midwife Bertha Tugwell) or document the not-so-astonishing fact that two or more historical figures share the same birthday. In fact, about two-thirds of

the book consists of a variety of coincidences, some of which are divided into categories such as 'literary' or 'war-related'. However, many are simply thrown together in four chapters entitled Random Anecdotes I, II, III, and IV. Very imaginative.

The first chapter has the potential to be the most interesting and insightful in that it introduces the reader to the variety of theories that have been put forward to try to explain, or explain away, coincidences. The reader soon recognises, however, that Anderson does not personally give much credence to skeptical approaches to understanding coincidences. Indeed, at times I felt that the author did not even seem to properly appreciate what the skeptical arguments were. For example, reference is made to statistician Christopher Scott's claim that, according to probability theory, the coincidence of somebody dreaming of a relative at the time of the relative's death is likely to occur in Britain about once every two weeks. Anderson, however, is more intrigued to learn that Scott estimates the number of dreams of death in the UK in any one night to be 2000 (assuming each person has one such dream in a lifetime) and estimates the number of deaths in each 24 hours to also be about 2000 people. An unacknowledged coincidence?

The book does not get any closer to the answer to whether coincidences are best explained in terms of 'chance' or 'fate'. If you were unfamiliar with the skeptical arguments, you would think from reading this book that the skeptics have had little to say regarding coincidences. You would of course be wrong. Anderson appears to be trying to convince his readership that coincidences represent some underlying unknown principle which orthodox science is ignoring. I, for one, am not convinced.

—Matthew Smith

Cultic twilight

Hans Sebel, *Witch-Children: From Salem Witch-Hunts to Modern Courtrooms* (Prometheus, 1995, hardback, 258 pages, £21.00)



Step into any 'Sociology of Women' or 'Feminist Studies' classes when they're talking history and you will hear about the millions (and millions and millions) of women killed as witches throughout the 15th and 16th centuries. Any general look at this murderous period will focus, almost exclusively, on the female victims of the religious hysteria and xenophobic-cum-misogynistic practices that characterise the times in some minds.

So I was interested to find that adolescent boys also suffered through these times. Like their female counterparts, they tended to be involved in the classic incidents of the witch-craze – scandals, possessions, accusations and confessions, along with the necessary torture sessions, executions and ever-widening spread of those caught up in the

drive to cleanse society.

Sebald paints a picture of Europe (and the United States) where juvenile delinquents bought in to the pervasive cultural milieu, describing their acts of teenage vandalism and loose adolescent morality as being inspired by Satan and by sundry salacious leaflets circulating at the time. Combine this with the rise in orphaned children, the religious turmoil of the Reformation and pecuniary motives for some of the religious and civil hierarchy involved, and you have a very evil witch's brew indeed.

A lot of it sounds very familiar to anyone who's observed the more hysterical extremes of the ritual Satanic abuse and child sex abuse cases of recent years. Sebald, in his final chapter on child psychology, cogently and concisely covers the issues that apply as equally to his German 'Witchboy' of 1629 as they do to children in the McMartin preschool trial 360 years later.

Those who forget history are doomed to repeat it. Books like this may help ensure that we are less likely to fall prey to the problems of the past.

—Vicki Hyde

Past and present lives

Sue Carpenter, *Past Lives: True Stories of Reincarnation* (Virgin, 1995, paperback, 250 pages, £4.99)

The majority of this book is taken up with twelve case histories of persons who believe themselves to be reincarnated. The case histories are largely unverifiable from the details provided and appear, to this reviewer, open to more prosaic explanations than the survival of the soul or spirit through many generations of people, animals, insects and aliens. Arguments for and against reincarnation are provided in the introduction.

The main argument for the belief appears to be its popularity. We are informed that more than half the world's population believes in a form of reincarnation. Yet this popularity involves a diversity of opinion concerning reincarnation which undermines its attractiveness. We are reincarnated as members of the same clan (Aboriginal), interesting people (New Agers), animals (47 African tribes), insects and extraterrestrial beings (a Dr Rossetti) amongst others. There is no consistent view of what reincarnation actually involves and some of the options may not appeal.

A second argument is the appeal to celebrity. On pages 28 and 29 we have more than 30 references to the believing great and good. These include Gary Glitter who, having regressed to a woman in the time of the pharaohs, remarks 'Maybe I'll come back as a woman next time'. Possibly, but hardly a compelling argument. The proposition 'The famous and very clever believe in reincarnation therefore it must be true' is invalid.

A third argument is the charm of the idea that we are, in some sense, eternal. The idea of death and extinction is 'bleak and untenable to many minds'. Presumably, then, eternal existence is a Good Thing giving believers something to look forward to. But is this the case? Buddhists view reincarnation as a curse lifted only by Enlightenment in the extinction of the Self. Hindus hold beliefs in both

reincarnation and pre-determination. Therefore, for some, eternity means being a recycled and helpless onlooker, destined to behave badly and have yet another bad time in the next life.

The author does review certain arguments which could account for people's beliefs without invoking reincarnation. Examples include imagination, telepathy, spirit possession and composite memory. With the exception of the first, all of these seem as problematic as reincarnation.

Many people who hold a belief in reincarnation are doubtless sincere and their sincerity ought to be respected. However, the move from being sincere to the claim that reincarnation is 'true' is not supported by the evidence or arguments in this book. The fact that millions believe in reincarnation doesn't make reincarnation a reality.

— Dave Unsworth

Occult religion

Janet Farrar, Stewart Farrar and Gavin Bone, *The Pagan Path* (Phoenix, paperback, 242 pages, £9.99)

Here we have a readable and informative introduction to Neopaganism as a religion. The roots of this pagan path are in Western occultism rather than long-lost pre-Christian religions; so skeptical readers will notice the extremely accepting attitude toward paranormal claims. There is more than enough weirdness endorsed. Beyond standard occult material, there is Jungian psychology, reincarnation, Kirlian photos of auras, chakras, and so on. When science takes the stage, it is a prop for magic, as with outdated brain-lateralization ideas. The authors emphasize that paganism values the female, in contrast to patriarchal religions. The female principle involved turns out to be a mystical right-brain aspect, as opposed to the rational left-brain male. Aside from being nonsense, it is difficult to see how this sort of mythology is supposed to be helpful for women.

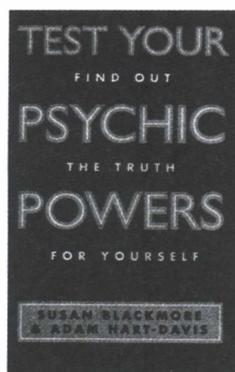
The weirdness, however, should not obscure the *religious* nature of Neopaganism and the occult. This is a religion in which magic and paranormal experience is central, not a developed doctrine. As such, it is part of an experiential trend in modern religion, where so-called primitive magical and religious attitudes are gaining ground as a reaction against both doctrinal religion and scientific rationalism. Seen as religion, the peculiarity of Neopaganism is not its emphasis on magic, but the fact that it lacks a community aspect. It is a severely individualist religion. Not even tradition serves to bind pagans to others – what the authors refer to as 'traditions' are *all* a few decades old at most. Neopaganism has only a superficial connection to pre-Christian times, being a thoroughly contemporary religion setting therapy ahead of truth.

While there is little to be recommended in Neopaganism, its superstitions are harmless compared to, for example, fundamentalist Christianity. Criticism of paranormal claims usually avoids getting entangled with criticism of religion. But the line drawn is arbitrary, and with pagans, nonexistent. This raises concerns of how skeptics should respond to occult religion, particularly since it is already unfairly demonized by fundamentalists.

— Taner Edis

Do it yourself

Susan Blackmore & Adam Hart-Davis, *Test Your Psychic Powers* (Thorsons, paperback, 159 pages, £5.99)



Psychic plagiarism, I call it. In fact it is worse than that, as precognition is clearly involved. More than three years ago it struck me that someone should write a book with a title such as 'Test Your Psychic Powers' or 'Are You Really Psychic' that would be published by one of the imprints specialising in psychic matters, and that would happily sit on the paranormal shelves of the bookshop and be purchased by people with a

non-skeptical interest in the paranormal. It would, however, contain clear information to enable the man/woman in the street to carry out reasonably scientific tests of a number of purported psychic phenomena. In effect, the book would be sneaking the wolf of skepticism onto people's bookshelves within the sheepskin of a book on the paranormal. Well, I never spoke of this idea to a soul – I simply said to myself 'the day *The Skeptic* appears on time and all your research papers, funding applications, marking and administrative tasks are completed and all the repairs around the house are done, laddie, you can sit down and write this book.'

Imagine my horror when *Test Your Psychic Powers* by Susan Blackmore and Adam Hart-Davis arrived for review. Not only have the authors taken this great idea but they have clearly dipped into the future and come up with the book that I would surely have written at some indeterminate time in the future. In fact, worse again, because of the vast knowledge and experience these authors have in matters paranormal, they have had the nerve to vastly improve on the book that I would one day have written if only I had had the time.

Ten chapters deal with telepathy, crystals, dreams, dowsing, the pendulum, premonitions, psychokinesis, the ouija board, palmistry and astrology. Chapters typically begin with anecdotal accounts of the particular psychic phenomenon and go on to give theories of how it might work, some historical information on research that has been carried out on the topic and, most importantly, detailed information on how simple but effective tests may be carried out by anyone who is interested. Finally at the end of many of the chapters, possible explanations of the anecdotes are put forward.

I am perhaps biased as an experimental scientist who places great value on experimentation as a means of finding out things about the universe but I think this is an excellent book and one that all skeptics should think of buying for themselves and giving as a gift – particularly to young people with an interest in the paranormal. The book represents a potentially very effective means of injecting some rationality and common sense into people's views on the paranormal without preaching or proselytising on behalf of skepticism. For anyone with a great idea for a future book, however, *Test Your Psychic Powers* provides no information on how your thoughts can be protected from the probing, clairvoyant powers of the authors.

— Steve Donnelly



Letters

Murphy's Law

Re 'Murphy was Right' (Steve Donnelly, Hits and Misses, *The Skeptic*, 9.4). Of course Murphy was right. If a dropped piece of toast lands with the butter side uppermost, the conclusion is clear: Donnelly has buttered the wrong side.

Martin S Taylor
London

Not little men

Chris Willis ('Sherlock and the Spiritualists', *The Skeptic*, 9.4), in outlining, as he sees it, the psychic questing of Conan Doyle, rightly describes him as a passionate advocate of Spiritualism. He also refers to 'leading Spiritualist Oliver Lodge' which is far from the case. Sir Oliver Lodge, FRCS, DSc, LID, MA (1851–1940) was the first Professor of Physics at the University of Liverpool and later Principal of University College, Birmingham prior to its present status. He is credited with the discovery of electrical precipitation in 1884 and in 1887 with identifying radio waves as belonging to the same family as light waves (concurrently with Hertz).

Although among the founders of the Society for Psychical Research (1884) he was never a Spiritualist in the sense of someone who subscribes to a set of principles. He did, however, study the phenomena of mediumship, among others, from about this time and became convinced of its genuine nature. His argued scientific view for this is set out in *Phantom Walls* (1929) and in very human terms in *Raymond or Life and Death* (1916) which is an account of an extended series of communications purported to come from his son of that name who was killed in action in 1915.

Willis also refers to 'psychic investigator FWH Myers'. An inspector of schools at Cambridge, Myers is credited with providing the

main impetus for the founding of the SPR in 1982. His two-volume *Human Personality and its Survival of Bodily Death* drew in detail a vast picture of the subliminal self, which he affirmed was the real ego, of which ordinary consciousness was only a small part.

Neither exactly little men dabbling with spirits. Doyle's enthusiasm undoubtedly ran away with him; not so Lodge and Myers.

Tom Cross
Audlem, Cheshire

Chris Willis, actually a 'she', not a 'he', replies: *I would certainly never describe Conan Doyle or any of the other people involved as a 'little man', and most definitely did not do so in my article.*

What's in a name?

May I point out something rather importantly wrong with the obituary of John Brunner (*The Skeptic*, 9.5): his name.

When we corresponded extensively in the early 1950s (and he was in his teens) he told me that he was inventing two middle names and asked if I thought them impressive-sounding. They were Kilian Houston.

Most SF writers since then seem to have wrongly assumed they were part of his real name.

Jim England
Kinver

Call for awards

Regrettably, the crop circle phenomenon has visited the arable lands of New Zealand but rarely, and then only in its most rudimentary form.

Nevertheless, local skeptics have responded favourably to my illustrated lecture on the topic; in particular, some gratitude has been expressed to Messrs Bower and Chorley, and also surprise that they have received, as far as we are aware, no publically acknowledged reward. Our members have suggested two

possibilities: (1) that the Queen bestow an MBE or award of like standing, for services to entertainment, or (2) that the Wessex Skeptics arrange for Southampton University to award honorary doctorates, for research in applied psychology.

Over to you, British colleagues, and thanks a million, Doug and Dave.

Bernard Howard
Secretary, New Zealand Skeptics
Christchurch, NZ

Out by a century

Your pen must have slipped when you wrote 'St John Kemble who was hanged, drawn and quartered in 1679' (Hits and Misses, *The Skeptic*, 9.5). The date should have been 1579, for Kemble was surely a member of the Jesuit mission which was seen by the Ministers of Queen Elizabeth I as the instrument of a foreign power concerned to replace that sovereign by a Roman Catholic.

Antony Flew
Reading

Instant history

Creationists have already come up with the idea referred to in Val Dobson's letter (*The Skeptic*, 9.5).

Two years ago I took a visiting Canadian cousin to Kent's Cavern in Torquay. When we emerged I asked her if she found it difficult to reconcile 50,000-year old stalagmites with her belief in a 6,000-year old world.

'There's no problem', was her immediate response, 'God created that cave with the stalagmites already in place!'

John Wallington
Torquay

The Skeptic welcomes letters from readers. We reserve the right to edit letters for publication. Please send letters to: *The Skeptic* (Letters), PO Box 475, Manchester M60 2TH, UK, or by email to: skeptic@cs.man.ac.uk.

Subscribe to The Skeptic

The Skeptic is published bimonthly; a year's subscription covers 6 issues. Please make cheques, postal orders (£ Sterling only), credit cards (Mastercard or Visa only) payable to The Skeptic. Email enquiries: skeptic@cs.man.ac.uk.

Postal area	Sub. (1 year)	Back issue*
UK	£14	£2.10
Europe (airmail)/		
Rest of world (surface)	£18	£2.70
Rest of world (airmail)	£30	£4.50

(* see below for our special discount rates for multiple back issues)

From: The Skeptic, P.O. Box 475,
Manchester, M60 2TH, United Kingdom

Order back issues

VOLUME 9 (1995)

- Ritual Satanic abuse: reality or illusion?**; How *not* to win the national lottery; Tesla: eccentric scientist or neglected genius? Psychic surgery in Britain: an alarming report.
- How to become a charlatan**; Meet the Italian Skeptics; The myth of the unicorn; The mystery of 'me'; The eyes that spoke: earthly origins of alien stereotypes.
- Fighting Creation 'Science'**; Psychoanalysis of books; Earthly origins of alien stereotypes-2; Catalogue of daft gadgets.
- Therapist power: the social psychology of healing and therapy**; Quackery old and new; Lies, damn lies and statistics; Arthur Conan Doyle: the unlikely Spiritualist.
- Health-case for you! Hi-Fi**; Pills, potions and poppycock; Susan Blackmore in Australia; The Age of Aquarius; Spiritualism, ancient and modern.

VOLUME 8 (1994)

- Crop circles: the full story, part 1** • **SOLD OUT** •
- The Creation: what really happened?**; Crop circles: the full story, Part 2; Freud and the occult.
- Animal rights: science or pseudoscience?**; Vivisection: the case against; Water, water everywhere; Saint George and the whale; The saucer error.
- Mysterious energies and martial arts**; Paranormal IQ scores; Alien abductions; Sitting in the dark; A matter of faith; Shock horror probe!
- Can the hands heal?**; Fantastic archaeology; Don't point that comet at me!; The ultimate question; The *Mary Celeste* revisited; Spam-can totality.
- Alternative medicine special**; What's wrong with alternative medicine? Acupuncture: elusive or illusory? Qigong: Chinese pseudoscience; The Indian Rope Trick.

VOLUME 7 (1993)

- The theft of the tarot pack** Across the great divide; 1993 Skeptical predictions; Obituary: Charles Honorton; A healthy dose of sasparilla; A test for reincarnation;
- The myths of meditation**; Vicious circles; The Cyril Burt affair; What hath Carlos wrought?; All that glitters is not gold; Skepticism - 1895 style; Equine pseudoscience.
- Cold-fusion heats up**; Rajneesh: the failed guru; Beyond the near-death experience (interview with Susan Blackmore); Meditation: skepticism or cynicism?; Spirit guides and after-images.
- The face on Earth**; Neural networks and NDEs; Francis Galton: A skeptical traveller; Cyril Burt reconsidered; It's all in the mind; The computer conspiracy.
- The mysteries of creativity**; At the frontiers of science; A Supernatural IQ?; The Big Bang controversy; Write your own pseudoscience.
- Science and nonsense**; The *Mary Celeste* 'mystery'; Who's that on the line?; Close encounters of the cult kind.



VOLUME 6 (1992)

- Paranormal trends in the USSR**; Faking an alien; Where do we file flying saucers?; Psychic questing; Future imperfect; Bands of hope.
- Brainwashing a skeptic**; Arguments to design; Dianetics: From out of the blue?; Taking it all too far; Who invented the Loch Ness monster?; The medium, not the message.
- Premanand: Scourge of the Godmen**; Women and the New Age; Do-it-yourself UFOs; Chapman Cohen: freethinker; Ice in the sky.
- Physics and the New Age - Part 1**; A short course on homeopathy; Ball lightning; The science of miracles; Pyramid power; Hoaxers on trial.
- The Man Who Died Twice**; Vampires in Cumberland; In no hurry to go; Is light getting slower?; Euro-cerealogy; Physics and the New Age - Part 2.
- Great balls of fire**; Quackupuncture; Cold comfort for Cold Fusion; The fasting woman of Tutbury; Skeptics and scoffers.

VOLUME 5 (1991)

- Paul Daniels interview**; Canals on Mars; Nostradamus and the Middle-East crisis; Potty training; The case for super-skepticism; Skeptical predictions.
- The New Age and the crisis of belief**; The *Mary Celeste* mystery - solved?; N-rays; Wet and dry skepticism; 1991 - the final crash of the UFOs.
- Why not to test a psychic - 1**; Speaking in tongues; Passing the torch; Another look at scientology; Sharp blades or sharp practice?
- James Randi interview**; Why not to test a psychic - 2; The inside-out cosmos; *The Freethinker*: 1881-1991; More light on Medjogorje; Dualism, ESP and belief.
- The documentation of a miracle?**; Psychics and semantics; Smith and Blackburn: hornswagglers extraordinaire; Spirits at large; Thicker than water.
- The summer of '91**; Seeing is believing?; Ask Professor Mesmo; Assessing evidence; Alternative medicine in Europe; Review of 3rd EuroSkeptics conference.

VOLUME 4 (1990)

- 1-5 • **SOLD OUT** •
- The man who invented UFOs**; The new demonology; Reflections on past life regressions; What is scientology?; Polywater.

VOLUMES 1, 2 and 3 (1987-1989)

• **SOLD OUT** •

BACK ISSUES DISCOUNTS

Save £s with our discount scheme! Order more than one back issue at one time and deduct the following discounts from your order total:

Ordering 2 - 6 issues, deduct 20%

Ordering 7 - 12 issues, deduct 30%

Ordering 13 or more issues, deduct 40%



This document has been digitized in order to share it with the public through AFU's project, running since 2010, to share files donated/deposited with the AFU foundation. Please consider making single or regular monetary donations to our work, or donations of your files for future preservation at our archival centre.

Archives for the Unexplained (AFU) · P O Box 11027 · 600 11 Norrköping, Sweden · www.afu.se

Paypal: afu@ufo.se

IBAN: SE59 9500 0099 6042 0490 7143

BIC: NDEASESS – Nordea/Plusgirot, Stockholm

Swish (Sweden only): 123 585 43 69