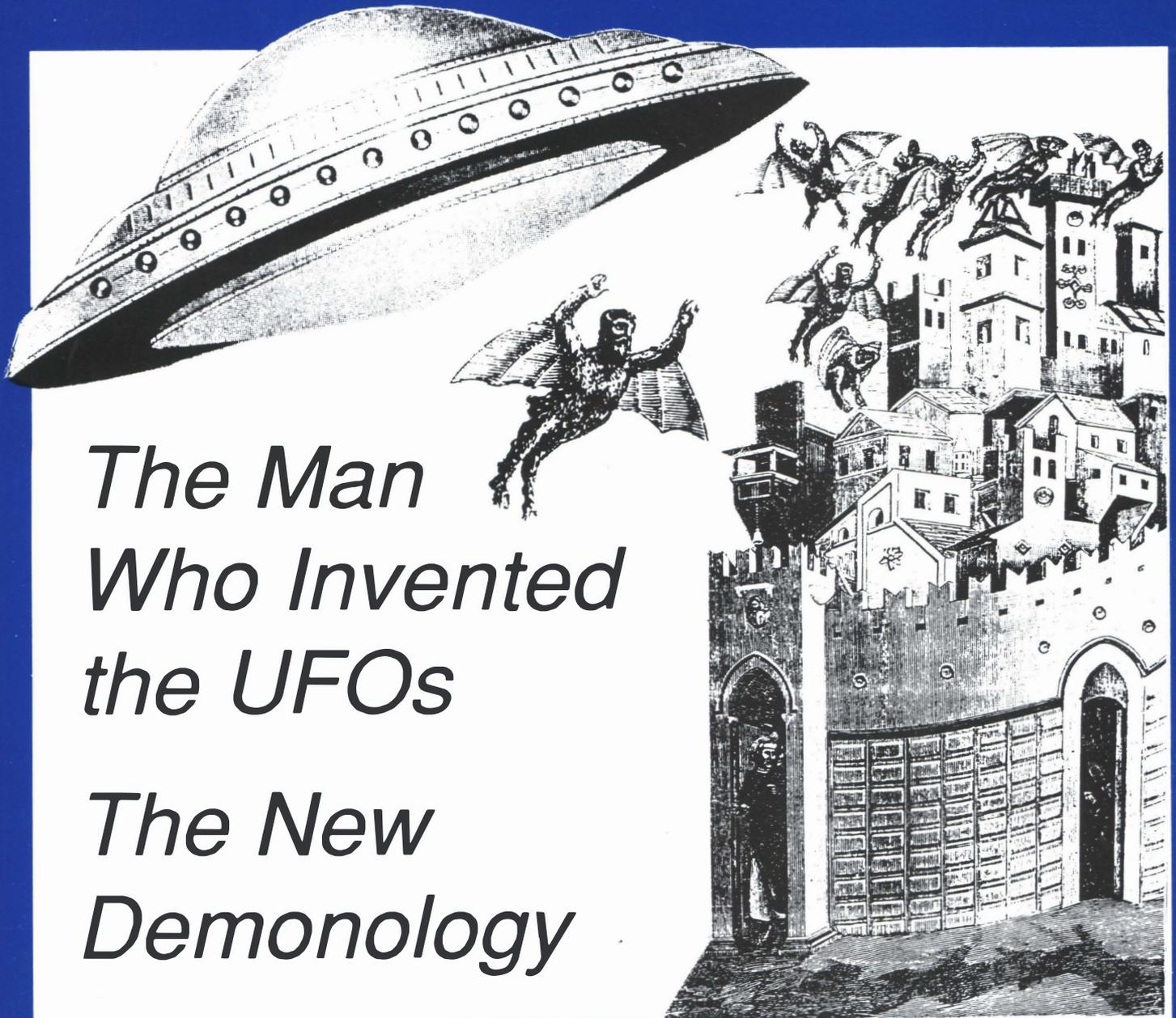


Volume 4 Number 6
November/December 1990

The Skeptic



*The Man
Who Invented
the UFOs*

*The New
Demonology*

Also in this issue:

Reflections on Past Life Regressions

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Hits and Misses

Steve Donnelly

The Bottom Line

The movie *Communion* which describes Whitley Strieber's experiences of being abducted and medically probed by two varieties of alien has recently opened in England. The film critic Barry Norman, reviewing the film on the BBC television programme *Film 90* on 9 October was fairly unimpressed by the movie but, having had the opportunity to talk to Whitley Strieber at some length last year, I decided to go and see it anyway. The film follows Strieber's 'experiences' originally described in the best selling book of the same name which was marketed as a work of non-fiction. Indeed, occasional subtitles to the film stress the fact that the events portrayed actually happened to a real American family and that a total of 19 people, visiting Strieber's country home, have shared his encounters with the short blue, medically oriented aliens or the thin pink ones with the big dark eyes and the rubbery arms. These descriptions apply fairly well to the aliens in the movie whose special effects are unlikely to win any prizes at the next Oscar ceremonies.

Although the film is almost totally unmemorable (despite a fine performance from Christopher Walken as Strieber) I was, nonetheless, left with the same impression at the end of the movie that I had after talking to Strieber. Namely, that he is a slightly odd character who has gone through some disturbing *subjective* experiences but who has also been quite happy to earn considerable amounts of money by recounting these experiences in his books and now in the movie. As a final comment I can't do better than to agree with Barry Norman who noted that the film did not provide any answers to cosmic questions such as why the aliens seemed obsessed with inserting things up the Strieber rectum. However, Norman himself may have come up with the definitive solution to this problem in his final comment on the film: 'I can only imagine that the visiting aliens were proctologists who had run out of bottoms to probe on whatever planet they came from.'

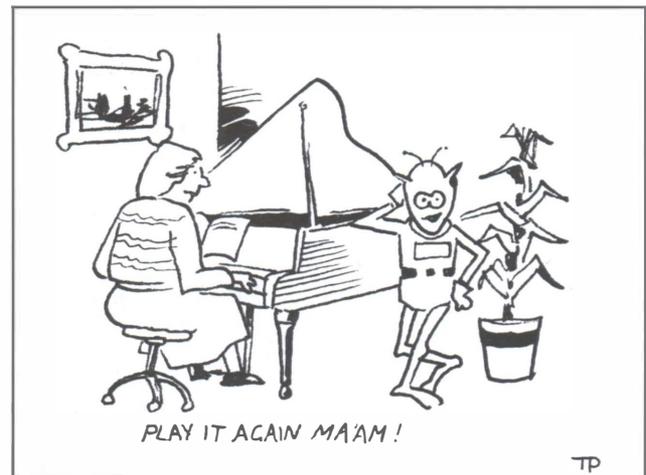
Music of the Spheres

Perhaps the most enjoyable part of the film *Communion* was the haunting theme music which was composed and performed by Eric Clapton. But Whitley Strieber could have had a much more appropriate soundtrack by engaging the services of singer/pianist Connie Cook from Peoria, Illinois, USA. According to the *Wall Street Journal* on 11 September, in November 1981 a gleaming globe-shaped UFO hovered silently outside Ms Cook's bedroom window for about 90 minutes. Soon after she dreamed of seeing four shiny people with indistinct features 'sort of standing in the sky.' They explained that they were appearing in human form to avoid frightening her and predicted a period of 'good will for the Earth's

peoples.' A month later, inspired telepathically by the alien visitors, she began compulsively composing and playing music. The music is described as a dreamy sort of jazz and soft-rock fusion with an intriguing other-worldliness but the lyrics (translated from Pleiadean) don't seem to be entirely other-worldly:

*By and by we learn to fly
Within each other's heart.
Space and time the ancient rhyme
Is overcome in our heart.*

There is no evidence, by the way, that the aliens bore any resemblance whatever to Des O'Connor.



Mouldy Tube

If you think that you have problems when you commute to work on the London underground you should thank your favourite deity that you don't happen to live in the city of Tashkent in Soviet Central Asia. The largest risk you are liable to run in London is perhaps an encounter with a pickpocket or with the ghost of Winston Churchill (see *Hits & Misses* in the last issue). According to the *Daily Mail* on 30 August, however, the commuters of Tashkent are having to cope with a malignant mould which is reported to be running wild through the Tashkent underground system. Even Lot's wife would be at risk from this deadly organism as it apparently 'munches through concrete and attacks humans'. Tests by Ukrainian scientists revealed that certain types of noxious mould flourished in the underground network which lay 'on the ancient migratory path of the micro-organisms'. (Do moulds go south for the winter?). In fact, of 32 patients examined, various species of mould were found in 14 and in the blood of 4 of these was found the new species which 'had more damaging effects than AIDS'.

Soviet Weakly

Before leaving the Soviet Union it is worth noting that the English language magazine *Soviet Weekly*—which 10 years or so ago used to feature mainly articles on the grain harvest and the fact that the Hoovermatic Twin Tub washing machine had just been reinvented in the USSR—has of late become considerably more topical in its coverage of life in the USSR. Of particular interest to *Skeptic* readers are the articles which it publishes on paranormal topics—with about as much skepticism as the British tabloids. Earlier this year the magazine ran an article on the healing power of trees (with branches all over Russia?) and followed this up in June with coverage of Dr Yuri Erontiev the man who ‘in the past 20 years has cured more than 30 000 patients, many of whom were considered incurable’. Dr Erontiev believes that disease is ‘an insufficiency of energy in certain zones of the human body’. He seeks out these zones and ‘charged with space energy’ amplifies it and passes it on to his patients using a magic wand in the form of a silver needle.

The magnetic attraction that Dr Erontiev has for his patients, however, is nothing compared with that of Nikolai Suvorov, an article on whom was featured in *Soviet Weekly* in June. Comrade Suvorov may look like any other militiaman patrolling his beat in Smetanino in the Kirov region of the USSR but ‘at night and weekends, in the privacy of his own home, he strips off to display the magnetic powers which make him irresistible to metal, glass and plastic.’ You see Yuri Suvorov is a human magnet whose attraction is not just limited to ferromagnetic materials. Given the large number of UFOs which are apparently overflying the Soviet Union since perestroika removed traffic restrictions on flying saucers (see issue 4.2) we must hope that Mr Suvorov does not inadvertently get picked up by a passing vehicle.

A Bun in the Oven

In *Hits & Misses* in issue 4.4 I referred to an article in that shining upholder of rational thought, *Take a Break*, in which mother-to-be Jacqui Devoy discovered a couple of strange intruders in her womb during a routine ultrasound scan. Well, according to *Take a Break* on 13 October this was not an isolated event as the magazine documents cases where a number of different pregnant women have found fathers-in-law, ancestors and even a cat in the ultrasound scan of their wombs. In fact, things have progressed to such an extent that, according to a Welsh reader (name withheld), the following correspondence appeared in the problem page of a (unidentified) magazine which he regularly reads:

Dear Marge,
Is it safe to have intercourse during pregnancy?
—Worried of Epsom

Dear Worried,
Well, it used to be thought safe—but modern science has recently shown that your husband's pride and joy is, in fact, at risk of being mauled by various animals, deceased relatives and complete strangers.
—Marge

A Shock of Hair

Many male readers will be relieved to know that their secret journeys to the countryside to have their pates licked by friendly cows may soon be able to come to an end. According to the *Hull Daily Mail* on 15 August there is now an alternative cure for male pattern baldness: ‘Just a zip and a zap with a miniscule electric charge each week could be enough to restore lost glory to your balding dome.’ Apparently a Canadian company has developed a new process which it is intending to market throughout North America and which cures baldness by stimulating the hair follicles electrically. The company, Current Technology Corporation of Vancouver, conducted a clinical trial in which 29 out of 30 men experienced renewed hair growth or had their hair loss stopped. The participants, on average experienced a 66% increase in hair count (on the bald bits presumably).



Holistic Problems

Most newspapers, at the beginning of September, reported on a disturbing comparison of success in treatment of women with breast cancer by orthodox medicine and by holistic techniques at the Bristol Cancer Help Centre. The study showed that patients with breast cancer are twice as likely to die if they attend the Centre than if they stick to orthodox medical treatment and that breast cancer is almost three times as likely to spread to other parts of the body in those attending the Centre. These dramatic findings were revealed in a statistical survey funded by the Cancer Research Campaign and the Imperial Cancer Research Fund and published in the *Lancet*. There is no doubt that the holistic approach used at Bristol appeals to many patients as it seems to put their bodies and illnesses back under their own control by using techniques such as relaxation, meditation, wholefood diet and ‘visualisation’—where the patient forms a mental image of her tumour and imagines it growing smaller. There is no doubt either that many patients have been helped—at least psychologically—by the Centre’s approach but, according to Professor Timothy McElwain a cancer specialist, quoted in the *Sunday Times* on 9 September, people were going to the

Centre 'expecting to live longer not just to feel better.' Although Penny Brohn from the Centre attempted, at a press conference, to defend the idea that diet could be used in the treatment of cancer Professor McElwain was adamant that there was 'not one jot, not one tittle of evidence' to support this view. And so, although both opponents and proponents of the holistic approach appear equally puzzled as to the reasons for the disparity in statistics, attention will inevitably focus on the wholefood diet used at the centre and by extension on the desirability of whole food diets in general.

Allergic Reaction

... And whilst on the subject of diet and health— according to a study published in the *New England Journal of Medicine* and discussed in the *Sunday Times* on 26 August—thousands of people who blame food allergies for a whole range of ailments are suffering from self-deception. Researchers at the University of California carried out experiments which revealed that patients showed the same response to supposed allergens even when the extract injected was actually a placebo. These findings come at a time when increasing numbers of people pay up to thousands of pounds for treatment of conditions ranging from fatigue and depression to aching joints, headaches and stomach upsets. The treatment of ten consists of identifying supposed food allergies and then treating them with a 'vaccine cocktail' which 'immunizes' the sufferer from the symptoms caused by the 'problem' foods. Dr Jean Munro who runs the largest allergy clinic in Britain is quoted in the *Sunday Times* article as saying that cabinet ministers, actresses and a senior churchman were amongst her patients and that her treatment could not be compared with that reported in the University of California trials. Despite Dr Munro's statement and the positive testimonials of patients treated by the vaccine cocktail method, a number of doctors are skeptical. According to Dr Parveen Kumar, a senior lecturer in gastro-enterology at St Bartholomew's Hospital, London: 'There is a group of people who have true allergies but blaming food for all ills has now become fashionable. I could make a million if I went into practice in Harley Street'.

Synthetic Druids

Life can be extremely trying when you're a Druid. According to the *Guardian* on 1 November, Britain's 100 000 Druids are furious over English Heritage's plan to put synthetic matting on part of the ground near Stonehenge in an attempt to reduce ground erosion caused by tourists' feet. According to one Druid: 'You just have to go there to feel the energy pulsing through your body. I make sure I never wear synthetic materials because they stem that flow of energy.' A reasonable enough point of view for a member of an ancient order that dates from the days when haute couture consisted of a goatskin overcoat and reversible mohair underpants. But hang on a minute—my trusty *Hutchinson Encyclopedia* tells me that Druidism was completely eradicated by a combination of Roman soldiers and Christian missionaries—so exactly how ancient is the United Ancient Order of Druids? A dip into that wonderful treasure trove, the *Dictionary of Common*

Fallacies (Vol. II) reveals that the ancient order was, in fact, founded in 1781 which makes them, in my book, slightly less than ancient. The *Dictionary* entry also claims that members of the order 'may have from time to time worn galoshes' but doesn't indicate whether or not they were made of synthetic materials.

The Essex Triangle

If you happen to live within a triangle, the vertices of which are formed by the towns Colchester, Great Dunmow and Tolleshunt D'Arcy', then beware. According to *Take a Break* on 9 August, 'this area is a rural backwater with a sinister harvest of violence, brutality and death' and is now known as the Essex Triangle (although, to my knowledge no ships have been reported missing in this region). The area was apparently, at one time, notorious for the number of witches who settled near Coggeshall who were eventually hunted down and burnt at the stake. The witches responded (quite reasonably in my view) by casting a 'malevolent curse across the land'. The article claims that the catalogue of murders and violent crimes in this area over the last forty years is an indication that the curse remains 'as potent and active as ever'.

Steve Donnelly is a physicist, a lecturer in electronics, a member of the Manchester Skeptics and the UK Skeptics and co-editor of *The Skeptic*.

Astrology Test

An open-minded Manchester astrologer has contacted us with a suggestion for a simple scientific test of astrology which involves attempting to distinguish between pairs of people with 'opposite' characteristics using only the times and dates of their births.

Our part of the experiment would simply involve providing the astrologer with a set of cards each containing the birth details of, for instance, a nun and a prostitute or a successful businessman and a criminal (assuming that these categories are mutually exclusive). By chance, one would expect to correctly determine which was which in about 50% of the cards whereas the astrologer hopes to be successful in 70% of cases if times of birth are available or 60% of cases if only dates of birth are provided. Our problem is that we have, so far, been unable to find a source of the required information on birth dates and times and do not have the resources to or time to devote to the problem.

We are, therefore, appealing to anyone who may have access to (or suggestions regarding) such information to contact *The Skeptic*. Ideally we would like to have a minimum of 100 such pairs and preferably many more.

Please write to :
The Skeptic (Astrology Test)
 PO Box 475
 Manchester M60 2TH

The Houdini File

Number Three

Frank Koval

If Houdini's ambition to become a professional magician had been fired by reading a copy of Robert Houdin's *Memoirs*, he was nudged in the direction of escapology from his study of *Revelations of a Spirit Medium*, published anonymously in 1891. This was a most detailed exposé of fraudulent spirit mediums and included methods used by them to escape from various restraints in the darkness of the séance room.

The mediums themselves bought up as many copies of *Revelations* as they could and destroyed them, making the book extremely scarce today. My own copy was purchased at the auction of some of Milbourne Christopher's duplicates at Swann Galleries, New York, in 1981. Harry Price possessed two copies and sacrificed one of them to have a photo-facsimile made. This was published in 1922 with notes, bibliography, glossary and index by Price and Eric J Dingwall and is the book reviewed by Houdini in the *New York Tribune*.

Houdini comments that a friend of his had taken a photograph under test conditions which included a 'spirit extra' of the late Professor Hyslop (Houdini's misspelling of people's names is, of course, well-known). Harry Price seized on this apparent belief in spiritualism in his book *Rudi Schneider*, published in 1930. He quoted Will Goldston as saying that 'Houdini's "exposures" of spiritualism were simply part of a great publicity stunt, and that he too was a "believer."' Price added in a footnote, 'I have a letter from Houdini in which he states that a spirit "extra" of Professor James Hyslop is a genuine one'. Price repeated this claim in his *Leaves from a Psychist's Case-Book* which was published in 1933.

HOUDINI
276 WEST 113th STREET
NEW YORK N. Y.

September 5, 1922.

Mr. Harry Price,
Arun Bank,
Pulborough, Susses,
England.

My dear Harry Price:-

Enclosed you will find my review of your book. I had written twice as much but this is all they used. Had quite a laudatory bunch of material about Dingwall and you, but presume they thought it was boosting you too high.

I wrote Dingwall several weeks ago, and have not heard from him since.

By the way, a friend of mine, Van De Weyde, under test conditions got a photograph of the late Prof. Hislop. Would you like a copy? It was as strict a test condition as I believe you could put anyone to. Van De Weyde is a great friend of mine, and I can get you a copy if you so desire.

Regards and best wishes,

Sincerely yours,

Houdini

HH:JLD

Harry Price Collection

As far as I know, this is the first time that this disgraceful piece of selective reporting by Price has been commented on. For, in letter number six in this series, Houdini explains exactly how the Hyslop image came to appear on the photograph—and it was not with the aid of any spirits! Of course, Price has only made his statements after Houdini's death.

Many other examples of Price's deviousness can be found in Trevor H Hall's *Search for Harry Price*, published by Duckworth in 1978.

Frank Koval is a teacher, writer and conjurer and is a member of the Manchester Skeptics

Reason, Science and the New Demonology

Andrew Belsey

Is a belief in angels, demons and spirits unreasonable?

A recent article by Andrew Brown, religious affairs correspondent of *The Independent*, reported a revival of belief in the supernatural among the newer, more conservative or fundamentalist Christian sects and cults (*The Independent*, 15 September 1990). At first sight this is an odd claim, for it implies that there is, by contrast, a type of Christianity that repudiates the supernatural. But all Christians believe in a supernatural God, and in spite of some doubters like the Bishop of Durham, most Christians believe in the reality of a series of supernatural happenings surrounding the life of Jesus, including the virgin birth, the incarnation and the resurrection. Christianity is and always has been founded on essential supernatural claims, so it cannot be just this general adherence to the supernatural that makes the beliefs of the newer sects stand out as different.

It turns out that what Brown is drawing attention to is the resurgence of particular supernatural beliefs, namely those that accept the existence of demons, spirits and similar inhabitants of the occult world, and that attribute human sins, vices and other evil manifestations to the actions of such demons. So to accompany this revival of demonological beliefs there has been the growth of exorcism, or 'deliverance' as it is now called, which is no longer just a fringe movement but is threatening to become an industry.

Readers of *The Skeptic* have already had one aspect of this modern demonology drawn to their attention by Steve Donnelly in his *Hits and Misses* column (*The Skeptic* 4.4, page 5). There, Brendan O'Friel, governor of the aptly-named Strangeways prison at the time of the 1990 riot, is quoted as saying: 'I certainly believe very clearly in the devil . . . None of us understands the battle that goes on between good and evil, but there was a manifestation of it at Strangeways'. As Donnelly points out, O'Friel is a Roman Catholic, so the revival of demonological supernaturalism is by no means confined to fringe Protestant groups.

Brown's article is straight factual reporting, but it is fair to say that it contains an implicit warning against credulity and the fraud, fakery and commercial exploitation that could follow in the wake of this demonology. Such warnings are eminently justified, but to a considerable extent their force within Brown's argument depends on the conceptual framework that he is using, especially the distinction between those supernatural beliefs that are acceptable, or at least respectable, and those that are not. Again, the distinction is more implicit than explicit, but Brown mentions the resur-

rection, divine healing and possibly miracles as central to orthodoxy, and contrasts these with the demonological beliefs of the supernaturalist revival.

But what is the basis of this distinction? If a supernatural God is a respectable religious belief, then why not supernatural demons too? It can't be their supernaturalness that is objected to. Nor can it be the novelty of the belief, since demons, especially in the persons of their chief, the Devil, have a long history as actual entities in the Christian universe. Perhaps it is evil spirits that it is claimed are unorthodox, because a good God would not permit them to exist. But what then about angels and other good spirits? Are they acceptable? And what about the tradition that demons are fallen angels, on which Milton was so eloquent?

Without some basis for the distinction, it is simply arbitrary to draw a line through supernatural beliefs and to declare that those on one side are acceptable and those on the other are not. So in terms of rationality, respectability or plausibility, belief in a supernatural God and belief in supernatural demons have the same status. They stand or fall together. Anyone who wants to hang on to God has no reason not to accept demons too. But if supernatural demons are too much to swallow, their demise leads to the death of God as well.

The simplest solution is to reject the supernatural altogether, and to accept, but only in a suitably tentative form of course, the existence of nature and the scientific account of it. But perhaps this is too naive. For as Brown points out, one factor behind the revival of supernaturalism is 'the scientific revolutions of the twentieth century, which have destroyed the materialism of the nineteenth century'.

But this will not do. It is true that the materialism of the nineteenth century has been overturned, but materialism has not. Nineteenth-century materialism has not been replaced by spiritualism or any other form of supernaturalism but by twentieth-century materialism.

It is a common but crude error to suppose that the fundamental changes that have taken place in our understanding of the world in the twentieth century have swept away not just the old theories but the very idea of science itself. Those who fall into this error do not realise how open terms like 'science', 'nature' and even 'matter' are. Of course they have acquired a wealth of historical associations and connotations, but these do not fix their meaning. Consider for example just how easily the idea of splitting the



atom, once by definition the smallest indestructible particle, has been accommodated by modern science. Matter is a similar example. Matter might have been 'dematerialised' by twentieth-century science, but it has not been spiritualised. We no longer think of matter, the fundamental constituent of things, as hard, impenetrable stuff, but as energy. The physics is different (and more difficult), but it is just as objective as before, and the universe remains as substantial, as material as ever.

It is the same with 'nature'. The idea of nature has no fixed content. Nature is simply whatever exists, and the task of science is to discover what it is like, at a fundamental level. These are not question-begging definitions, for they leave open the issue of what will be discovered in the future, and by what means. Science has no prior commitment to any particular results or to any particular method, but only to certain procedural checks which are supposed to ensure some level of objectivity and reliability in its conclusions. But even these checks are hardly constraints, since there is little agreement among scientists and philosophers about what constitutes objectivity and reliability in science. And even if there was agreement now, this could not be legislation for future scientists who had good reason to try something different. To put the point simply: we cannot lay down or even predict what science will be like in the future, in either its methods or its results. Scientific method is essentially controversial, and scientific theories always tentative.

So it is a reasonable hypothesis that the conception of matter as energy will be overtaken by new theories, just as the conception of matter as hard stuff was. It is not unlikely that the science of the future will be as different from the science of today as the science of today is from the science of the ancient Greeks. It is even conceivable that the existence of spirits and demons will be demonstrated in the future. But paradoxically this victory of supernaturalism would at the same time be its defeat. For whatever is, is part of nature, and

if spirits and demons exist, they are part of nature, not 'supernature'.

What are some suitably sceptical conclusions? It is impossible completely to rule out the existence of spirits, but their existence is implausible because it would complicate the world picture, not simplify it. Spirits are not needed. The vast processes of the cosmos can be explained without them, and as for human vices and sins, they are more likely to find an explanation in the psychological and sociological study of human nature.

Science puts a lot of emphasis on the idea of simplicity. This is not a dogmatic commitment, but just something that, all things considered, seems plausible. Scepticism should adhere to the idea of plausibility. It is a bit vague, but the best that there is. What seems plausible remains plausible until there is a good reason to think that it no longer is. Using ideas like simplicity, plausibility and good reason as regulators, themselves liable to change, human beings try to build explanatory theories about nature.

The notion of a complete explanation of everything is implausible, for many reasons. It is likely that there will always be things that are not understood, perhaps because they are beyond the reach of human intelligence. But why should this be a troubling thought? It is more modest, as well as more sceptical, to suppose that there are limitations to the powers of the human mind than to the inhabitants of the so-called supernatural world.

Andrew Belsey is a lecturer in the School of English Studies, Journalism and Philosophy at the University of Wales, College of Cardiff.

Come to a meeting!



The London Student Skeptics cordially invite you to join them for an evening of skeptical entertainment and camaraderie, with the added attractions of a video film, quiz and magician. The venue: Room 3C, University of London Students' Union, Malet Street, London WC1. The date: Monday 10 December, 7.30 p.m. Everyone is welcome—not just skeptics!

Memory, Fantasy and Past Lives

Michael Heap

Reflections on Past Life Regressions

Melvin Harris's article 'Many Happy Returns' published in *The Skeptic* Vol 4 No 4 reports a commendable journalistic investigation of claims for evidence of reincarnation derived from hypnotic 'past life regressions'. Ian Wilson has also written a similar account in his book *Mind Out of Time* [1]. I should like to add my own thoughts to these discussions although I ought to say that I myself have not undertaken any 'past life' regression work, only age regression for therapeutic and demonstration purposes.

MEMORY AS A CREATIVE PROCESS

My first point is that, while I do not believe that subjects of 'past life regressions' actually relive previous incarnations, I feel that the explanations offered by both Harris and Wilson in terms of cryptomnesia are rather weak and do not draw adequately on what is known about the nature of human memory. Contrary to one's subjective impressions, memory, like perception, is an active, constructive process, whereby the mind creates an image, idea, experience or whatever from a limited set of raw sensations or memory traces.

We can think of a memory as an inference based on fragments of material; memories and fantasies are rapidly synthesised around such data points, both internal and external, so that cues and prompts greatly facilitate the process of remembering, and recognition memory, of course, is considerably superior to spontaneous unaided recall.

So memory is not like a videotape loop. Ian Wilson uses that simple model to account for the vividness and accuracy of detail of some 'past life regressions'. He refers to work of the neurosurgeon Wilder Penfield to support the model. Penfield [2] electrically stimulated portions of exposed cortex of patients on whom he was operating for the alleviation of severe refractory epilepsy. Some patients thus stimulated appeared to relive with great vividness seemingly remote events in their lives, as though indeed an internal 'videotape loop' had been triggered. However only a small minority of patients (less than 4%) showed this effect and there is no reason to suppose that their experiences represented accurate memories.

THE NATURE OF FANTASY

I believe we underestimate people's ability to fantasise creatively and with great vividness and detail. The act of imagining one has a previous life may provide a focus around which fantasies and actual memories may crystallise and form a quite elaborate structure. This is not so different from those tasks set by our history teacher such as 'Imagine you are a sailor in Nelson's fleet'. Similar creative activities are the improvisation of a role by an actor or actress and the development of a character by a novelist.



THE EFFECTS OF PRIMING AND COMPLIANCE

With hypnotic age regressions, as with any regression, we also need to take into account the possible effects of priming, that is, the subjects' knowing in advance that they are going to be 'regressed to a previous life'. Under such circumstances, subjects would be able to rehearse their impending performance. Neither should we underestimate the motivation of the subject to comply with the demands of the 'past life regressor', even to the point of denying prior knowledge of material elicited. (Here I find the ideas of Wagstaff [3] very useful and convincing.) I find it hard to accept Melvin Harris's interpretation of Jane Evans's numerous past lives in terms of cryptomnesia, because of the sheer weight of material provided, apparently extracted from several novels. A blanket of source amnesia for such a plethora of detail seems intuitively unlikely. Moreover the literature on hypnosis does not indicate that the recall of factual information is enhanced by hypnosis (although there is good anecdotal evidence from clinical practice of a facilitation of retrieval of repressed traumatic memories). I suspect that the extensive 'cryptomnesia' evident in some cases is mostly due to the demands made on the subject to produce a large quantity of seemingly factual information and to deny any previous awareness of it. This is essential for the authenticity of the 'past life' experience.

VARIATIONS ON PAST LIFE REGRESSION INSTRUCTIONS

Informal experiments [4] have suggested that if you ask subjects to pretend as hard as they can that they are reliving a past life, then their enactments are no less convincing than those of subjects who are put through the hypnotic induction and regression procedures. (As the Bloxham tapes testify, most will be mundane and unconvincing [5] but there are some subjects, perhaps those that have a particularly well-developed facility for creative fantasy who produce vivid and convincing enactments of 'previous lives'.) From what is known about hypnotic age regression this finding would not be surprising.

I predict that if the instructions to return to a past life are framed in such a way as to permit the subject to display prior knowledge of the details elicited, then source amnesia will diminish without compromising the realism and intensity of the experience. In fact I would go as far as to say that the hypnotic regression procedure imposes unnecessary restrictions on the capacity of many subjects to experience a 'past life' because of the demand for source amnesia. This demand may be removed by, for example, informing subjects that by using all their knowledge of history gleaned from lessons at school, films, television programmes, books, etc, they will find that their imagination will allow them to enact vividly and realistically the role of a person who lived some time before they were born. (Perhaps the period of history could be chosen by the subject beforehand.) A preliminary period

of relaxation and contemplation may be useful to help the subject think himself or herself into the role but, as with age regression, a key factor is the behaviour of the experimenter who must guide and encourage the subject to develop his or her imagery and must adopt a role which is congruent with the role adopted by the subject.

CONCLUSION

It is understandable that the topic of 'past life' regression should be shunned by psychologists because of its obvious occult and unscientific connotations. If however we view this phenomenon in the context of the study of role enactment and the capacity of individuals to have creative fantasies (and, incidentally, how this capacity may be developed) then there is no reason why experimental psychologists should not regard the subject as a valid one for scientific enquiry.

NOTES

- [1] I Wilson, *Mind out of Time? Reincarnation Investigated*, Victor Gollancz, London, (1980).
- [2] W Penfield and L Roberts, *Speech and Brain Mechanisms.*, Princeton University Press, Princeton, NJ, (1959).
- [3] G F Wagstaff, *Hypnosis, Compliance and Belief*, Harvester Press, Brighton, (1981).
- [4] M T Orme, Paper presented at 'Measurement and experimental control in hypnosis'. Symposium of the Metropolitan Branch of the British Society of Experimental and Clinical Hypnosis, University College London, (1982).

Dr Michael Heap is Honorary Secretary of the British Society of Experimental and Clinical Hypnosis.

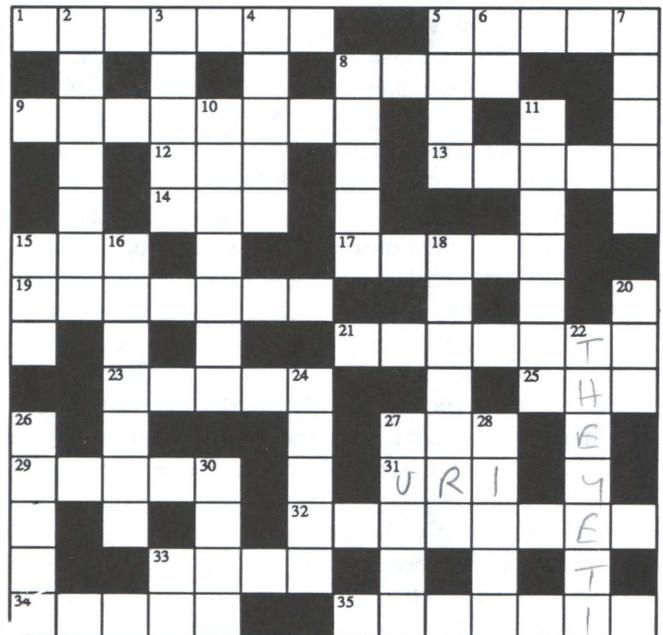
Crossword

Ian Rowland

Most of the clues or their answers are related to skeptical matters. Some of the answers are proper names which should be familiar to readers. Send your entries to the Skeptic, PO Box 475, Manchester M60 2TH, by 14 December. The first correct entry out of the hat will win a copy of Patrick Moore's classic book *Can You Speak Venusian?*, and a £5 book token.

Across

- 1 Strange put in rare faithful assumption (7)
- 5 Skeptical sleuth raced a princess? (5)
- 8 From another place (4)
- 9 Big draw to put your name to phony attribute (4,4)
- 12 Fakers rarely do - up, that is (3)
- 13 PK target always handled even if not touched? (5)
- 14 Draw link (3)
- 15 Shortened papers (3)
- 17 Good name for a spoon bender past his best? (5)
- 19 Sort of paper in disturbed read apart (7)
- 21 Feign a weird amulet with direction (7)
- 23 What psychics do best, I suppose (5)
- 25 Sounds like my query (3)
- 27 The end of a demonstration (3)
- 29 Confirm test (5)
- 31 Bender in our interior (3)
- 32 Psychological chair man, Arthur? (8)
- 33 Status rare in psychic claims (4)
- 34 Sonic youth (5)
- 35 Priestly one (7)



Down

- 2 Clairvoyant's skill level startles some (7)
- 3 Divination aids to betray backwards? (5)
- 4 ESP tester sounds wet? (5)
- 5 Boom going up for spirit manifestations (4)
- 6 Headless man (2)
- 7 Like metal bending meaning? (5)
- 8 Transmitting levitation? (2,3)
- 10 Sting lewd sin (7)
- 11 A feature of the Piltdown Man, perhaps? (4,3)
- 15 Plot (3)
- 16 Desire in child genuinely cures the sick (7)
- 18 Unearthly crockery? (7)
- 20 Invisible yet straight (3)
- 22 They tie big feet? (3,4)
- 24 Bet it stops the undead (5)
- 26 What The Skeptic does to the mind (5)
- 27 Very odd (5)
- 28 Reject channel (5)
- 30 Deserve to sound Grecian perhaps? (4)
- 33 Some total (2)

on air

opens

Hobgoblin Goes On Holiday

Hobgoblin

So Toby Howard thinks he's psychic does he (*Psychic Diary, The Skeptic* 4.5)? '... propel me down an unknown street in an unknown town... and if there is a second-hand bookshop in the vicinity, I will find it. *Paranormally*'.

Well, your curmudgeonly old book reviewer, Hobgoblin, has got news for him, because he's a bibliomaniac, too, and he reckons he can locate a second-hand bookdealers' premises by psychic powers just as quickly as Toby. But his special gifts seem to work (I say 'seem to', because further research into this field is clearly necessary) on the 'psi-missing' principle. In other words, Hobgoblin finds the shop just after it has closed for lunch, or arrives to see a sign on the door saying that the owner has pushed off to an auction in some remote part of the country, and won't be back until next Tuesday.

But undeterred, in September, Hobgoblin decided that it was time for him to pack his goblin-sized rucksack, and go on a walking tour through Somerset and Wiltshire, to check out those elusive bookshops, and to visit all the mystical sites along the way. The vibrations were good. How did he get on? Let him tell you in his own words...

Bath, Bristol, and the Mendips don't seem to offer much paranormal solace to the psychically-sensitive hobgoblin, so I decide to move on to Wells. But the first chance I have of any paranormal encounters comes a day later in Glastonbury. In the ruins of the Abbey, close to the site of the grave of King Arthur, two young ladies sit on a bench. They are absolutely motionless, their eyes closed in a kind of rapt calm. Are they meditating, I wonder? Whatever psychic waves they are picking up, nothing's getting through to me.

Just down the road, a shop is doing a roaring trade in crystals, tarot cards, and miscellaneous paranormal knick-knacks (doubtless inscribed 'a present from Glastonbury'). Another shop offers a sideline in healing ('last appointment: 4.30'). It's curious how these psychic powers can be turned on and off like a tap.

And then it happens! My big paranormal experience—I have somehow stepped into a time-warp. Eat your heart out, H G Wells, because I didn't need a machine to do it. Something really weird is going on here, because people are dressed just the same way hobgoblins like me used to about twenty years ago—the beads, the flowered shirts, the flared loons, the shoulder-length hair. It really is uncanny, because this effect seems to be limited to Glastonbury itself: as soon as I step past its boundaries, I am definitely back in 1990. Can there be a rational explanation, I wonder?

The bookshop in the High Street is a real find. As well as stocking some paraphernalia for ceremonial magic, it specializes in books on all aspects of the occult and the



paranormal. Mind you, their prices are pretty paranormal, too. If I could get this sort of money for my own collection, then I'd be the richest little hobgoblin for miles around.

On to Frome, where I locate (paranormally, of course) a really interesting little bookshop, which is full of stuff on healing, meditation, and parapsychology—including many useful-looking remainders. Astonishingly, they have a wide selection of the annual conference proceedings of the Parapsychological Association. How much of a market is there in Frome for that sort of thing?

In Devizes, I am too late to see any crop circles (Harvest Festival having been held the week before), but the enterprising hotel proprietor has thoughtfully inserted an information sheet in the folder in my room, telling visitors how to get to them all. And somebody, it says, is actually offering helicopter rides (at a pound a minute) to see them.

I am now going to skirt round Salisbury Plain, notorious for many UFO sightings. Surely I shall see something mysterious and unexplained. No, I am afraid not, not even so much as a light in the sky. Stifling my goblin-esque disappointment, I press on to the stone circle of Avebury, and the monumental engineering of Silbury Hill. And then after an overnight stop in Pewsey, I press on to Stonehenge. Even mischievous little hobgoblins are overawed by Stonehenge; but still nothing paranormal happens. Then it's straight down the road to Salisbury, and on to the train back to Goblinland.

It's fun to be back. After re-stocking the larder, I sit down to an appetizing plate of prawns and a Mediterranean salad, and a glass or two of well-chilled vin de table. As I twist the tail off the last prawn, the doorbell rings. It's a Jehovah's Witness. We manage to agree on an amazing number of things, but I'm on my best skeptical mettle, and after a mere fifteen minutes, during which I manage to quote Nietzsche, Paley, Plato, and Helmholtz, she politely makes an excuse and leaves. I now dread the next knock at the door, knowing that it will be her, back with the reinforcements...

Hobgoblin is a psychically ungifted bibliomaniac who not only collects and reads books but also occasionally reviews one for *The Skeptic*.

The Man Who Invented the Flying Saucers

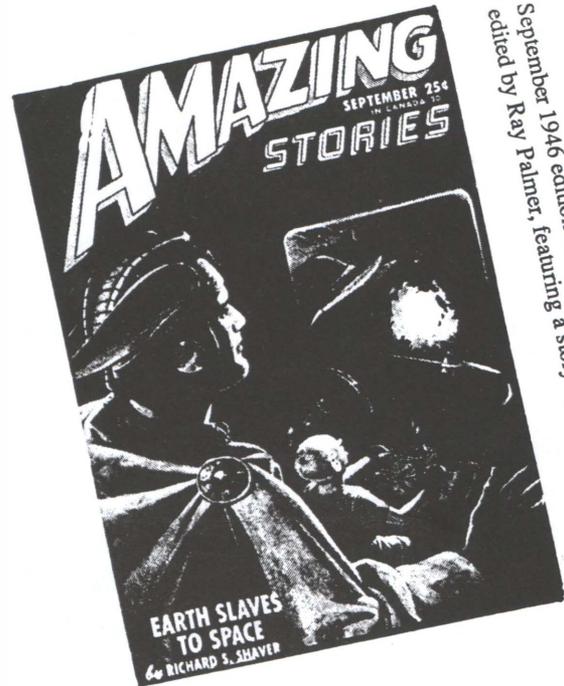
Roger Ford on Ray Palmer

There seems little doubt that the late Ray Palmer was, if not the 'father of flying saucers', then at least the midwife who assisted at the birth of the most intransigent mystery of this, or any other century. The parameters he ably established when he first espoused the ufological cause by publishing *I Did See The flying Discs* by Kenneth Arnold in the pages of the first issue of his brand new magazine *Fate* in 1948, still have considerable influence today—Especially in America where the 'Aliens from Space Syndrome' has gained a new lease of life by the implementation of the Freedom of Information Act. Throughout his life Palmer publicised the ufological cause. first in the pages of *Fate*, subsequently in another magazine he later founded—*flying Saucer*. From the material he published, readers could be forgiven for thinking that Palmer thought the term flying Saucer a euphemism for Spaceship. In fact, so apparently uncompromising was he in his approach to the subject, it is said that he finally provoked an exasperated American Establishment into openly accusing him of 'inventing flying Saucers to further sales of his magazines'. 'What a load of Bolides!'—you might say. But be careful you don't speak too soon.

Although, with the advent of Kenneth Arnold, and after his involvement with The Maury Island Hoax, Palmer took up the literary gauntlet on behalf of ET, it is noticeable in his later years that he returned to a theme, older and more occult, which had apparently lost him his job during his editorial youth. According to what he wrote in his article 'Saucers from Earth?' which appeared in this country in a Tandem Special, *The Allende Letters*, published in 1968, he was again speculating that the UFOs originated on Earth. He wrote: 'While it is true that there are many interplanetary mysteries, linking them with UFOs demands a stretching of the evidence, and a great deal of extrapolation.'

He qualifies this by going on to point out: 'Since almost all sightings are 'in atmosphere' our thinking must be limited to the atmosphere.'

Obviously Ray Palmer had gone full circle in his thinking and returned to the paradigm of his youth. Flying Saucers from Inner Earth. Oh! Dero, Dero, Dear! In support of his seeming about face he refers, in his article, to the Polar explorations of Admiral Richard E Byrd. Byrd, a pioneer aviator, had overflowed the Poles in 1926 and 1929, and then again in 1947/48, as an integral part of the quite extensive expeditions he led into those areas. Rumours regarding what he discovered especially during the year 1947, had now apparently persuaded Palmer to promote a paradigm he had published way back in 1945, in a different context.



September 1946 edition of *Amazing Stories* edited by Ray Palmer, featuring a story by Richard Shaver

At that time Ray Palmer was an editorial star in the world of 'pulp' Science fiction having succeeded Hugo Gernsback as editor of *Amazing Stories*, a respected if somewhat garishly illustrated, American science fiction magazine. It was during a stint as editor that there eventuated, apparently aided and abetted by Palmer, the 'Shaver Mystery' which was later called by *Life* magazine 'The most celebrated mystery to rock the science fiction world.'

The mystery had its genesis in a series of stories published by Palmer in *Amazing Stories*, the first of which appeared in the March 1945 edition. In the end Palmer was relieved of the editorship for his part in the affair, as apparently no matter what it did for circulation, Messrs Ziff-Davis were not amused. Palmer went on to meet his fate, and it could be argued that, perhaps, in 1945 he was totally unaware of what he was letting himself, and the World, in for when he was instrumental in publishing 'I Remember Lemuria' by Richard S Shaver.

The theme of the original story was carried throughout a series that Palmer ran, sporadically, in the magazine over a four year period. Almost immediately there were rumbles in the concrete jungle and, by the time the series concluded, the magazine had been inundated by letters from readers insisting that they knew the content of the stories to be more fact than fiction. By 1951 the affair had reached such proportions as to attract the attentions of the publishers of *Life* magazine—which then promptly entered the fray by publishing the article from which the above quote was taken. The result was almost

identical. Letters, in considerable quantities came into the editorial offices of *Life* magazine from individuals who claimed to have had experiences that persuaded them that the Shaver stories had a firm basis in fact. Even while the series was running in *Amazing Stories* the rumour that Shaver had claimed his stories to be true—but had been persuaded by Palmer to ‘fictionalise’ them in order to facilitate publication in a mass circulation science fiction ‘pulp’—was gaining currency. By the time the series had ended, and the *Life* article had appeared, things had come to the point where it was almost accepted that the rumours were true, and that the fictionalised version was only a pale shadow of the original. Apparently, at the time, Ray Palmer did not make any noticeable attempt to disabuse his readers of such nonsensical notions. So, based mainly in rumour, the ‘mystery’ grew apace.



Now what exactly was it about the Shaver stories that persuaded persons reading them that they were reading a thinly disguised factual account? On the face of it the stories were fairly typical of the popular science fiction of the day. They differed only insofar as the author had chosen to have his Bug Eyed Monsters emanate from the depths of the Earth, rather than from outer space, as was more usual in the genre of the times. The plot of the stories revolved around the abhorrent activities of an underground race of semi-robots, or androids, who had ‘degenerated’ into some kind of ‘superidiots’ since being abandoned, some 12000 years ago, by their Lemurian creators when these fled the Earth to escape the effects of a Solar Cataclysm that was causing the Sun to bombard the Earth with deadly radiations. The full title accorded these abysmal creatures in the stories was ‘Abandoned Detrimental Robot’ soon shortened to Abandonero, and finally to plain Dero, and only the Daleks have ever come close to them for sheer mindless malevolence. According to the stories these semi-sentient slaves of the Lemurians were left to fend for themselves when their masters fled into space to escape the radiation being poured out by the Sun. Thus betrayed they had no option but to go into the vast global complex of underground caves and facilities left empty by the fleeing Lemurians. But even there they were unable to fully escape the detrimental effects of the lethal Solar radiation. This resulted, over the centuries, in a kind of devolution that turned them into malicious midget-like idiots whose only occupation, and delight, was in the covert tormenting of the human race which had, in the interim, grown numerous on the planet’s surface. It is, perhaps, one of the more tantalising implications of the

stories that the human race is what is left of the Lemurians. Their social rejects who were unable to flee, or were deliberately left behind by their fellows. And this adequately explains the Dero’s detestation of humanity. Suffering from racial amnesia as a result of the cosmic trauma, we are unaware of the Dero’s deadly influences in our daily lives—implied Shaver. Further, he explained, that to aid them in their singularly satanic hobby of inflicting covert GBH on the human race the Dero can call upon the almost magical technology bequeathed to them by the fleeing Lemurians. Preprogrammed in its various uses at the time they were created by the Lemurians as a race of slaves in perpetuity, they have had no difficulty in perverting its operational parameters to bring it to bear on an unsuspecting humanity. All good stirring stuff—to be sure. But so what? The stories were presented as fiction—why take them for anything else? Perhaps the effect generated by the stories had more to do with the reader’s imaginations than that of the author? It has to be suspected that Richard S Shaver inadvertently put his literary finger on that part of the human psyche wherein lurk all the archetypal ‘entities’ who have bedevilled our race—probably from its beginnings. Either that or we must accept the proposition that the numerous correspondents were correct, and the Shaver stories did, in fact, contain recognisable elements of truth. But can something so apparently outrageous be true? We had better hope not, as Shaver credits the Dero with being able to call upon all manner of mechanical marvels (mech for short) to assist them in their depredations, and clearly implies that although ‘degenerated’ in their terms their intelligence is still equal, if not superior, to its human equivalent. These two factors allow them to operate vehicles of tremendous power, which they use to tunnel under the Earth with all the ease of a Maserati on a motorway. Also they have at their command ‘mech’ that can cause accidents or nightmares with equal ease, and further ‘mech’ that allows them to abduct objects or persons of their choice instantaneously from any point on the surface. By judicious application of all this ‘mech’ they are able to surreptitiously provoke the human race into murder, mayhem and sudden death. On the lighter side, perhaps, Shaver credits them with a ‘stim machine’ that is able to cause a permanent erection in the male, and the corresponding condition in the female. Apparently, according to Shaver, the Dero are not all that averse to using this particular ‘stim-mech’ on themselves, and then of assuaging the condition thus produced by availing themselves of human partners abducted by them from the surface by various means. All this when taken in conjunction with their ‘mech’ assisted ability to observe in minute detail all the activities engaged in by Mankind on the surface of the planet, must make them the compleat voyeurs. According to Shaver, such shennanigans are their sole source of entertainment and, in the stories he warns: ‘The Dero still exist in caves and all our troubles are caused by them’

Even as a fictional idea it can be argued that Shaver’s Dero are not exactly original. That the author had merely substituted ‘Dero’ for ‘demon’ and added a few pseudo-technological trappings for garnish. Therefore the public response to them would seem to be out of all proportion to their content. Mystifyingly it appeared to rise out of a need on the

part of his readers to let him know that they knew. Those who wrote in were not concerned to congratulate Richard S Shaver on his imaginative powers, or his literary expertise. They wrote solely to tell him that they believed him, and that, from personal experience, they knew that the Dero, or creatures fitting that description almost exactly, did exist, and acted in the way he described in his stories.

But the 'Shaver Mystery' only achieved occult immortality when it was subsequently realised that, in describing the 'mech' in which the Dero visited the surface, Richard S Shaver had anticipated the flying Saucers. Not only that but it came to be gradually recognised that in much of what Shaver's correspondents had said could be found elements recognisable in the much later testimony of UFO percipients. Especially in the scenarios described by abductees. In fact it is possible to maintain that the UFO Phenomenon in general might well be the Shaver Mystery Materialised, as it can be argued from the immense ufological documentation, that the flying Saucers and their presumed pilots have, in more ways than one, inherited all the attributes credited to the Dero by Shaver. The presumed technology that the UFO Phenomenon allegedly deploys, and the reported activities in which UFO related 'entities' allegedly engage, have an unmistakable Derolike quality. In the contactee and abductee literature descriptions of Derolike 'entities' abound, and more than one abductee has returned with a tale of being 'transported' to a vast underground 'UFO base' allegedly under the surface of this planet.

So perhaps, after all Ray Palmer, in being instrumental in the publishing of the Shaver stories, and in their aftermath, inadvertently became—The Man Who Invented The flying Saucers.

Roger Ford writes for the *UFO Debate* from which this article is reprinted with kind permission

New Writers

The Skeptic is always searching for new contributors who can write informative articles on paranormal issues.

Although we present a generally skeptical attitude we also publish articles by proponents of the paranormal as our aim is, where possible, to present both or all sides of controversial issues.

If you have some interesting, lively, or unusual thoughts on pseudoscience and the paranormal then why not put pen to paper (or better still, fingers to word-processor keyboard) and write us an article? Your article does not have to be academic in nature (although it could be) as our aim is to entertain as well as inform. Although we cannot guarantee publication, all manuscripts will be carefully considered.

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We rely on readers' submissions of clippings and other material to keep us informed of paranormal activity in the UK (and elsewhere). If there are strange going on in your neck of the woods please send us relevant clippings from your local newspapers.

Not So Harmless

Pat Kehoe

13 Hazards of New Age Thinking

Many people believe that the New Age is at worst an innocuous pest. Most of those same people have not ever thought things through. Consider:

- It lays the public open to fraud and exploitation by failing to provide either the means or the encouragement to evaluate paranormal and pseudoscientific claims.
- It disseminates misinformation, stating as facts events and phenomena that are unsupported or unsupported.
- It encourages the belief that intuition and subjective experience are more valid avenues of knowledge than public, specifiable, observable and repeatable ways of verifying experience and inference.
- It encourages the belief in arbitrary and sometimes malevolent supernatural forces.
- It reduces personal responsibility by attributing behaviour to powers and influences beyond direct human experience and control.
- It implies that knowledge can be gained without effort and that events can be predicted and controlled through powers that are supernaturally bestowed.
- It rejects and even disparages critical thinking analysis and skepticism, which are fundamental to scientific and rational processes.
- It encourages a belief in the equality of options, regardless of the evidence for them.
- Lacking any system of checks and balances, it permits claims to be made without foundation, challenge or scrutiny.
- It employs and therefore models explanatory devices (for example, the hypothesis that cannot be refuted) that are counter-productive in the search for knowledge and understanding.
- Some claims can be actively harmful, such as by encouraging physically or psychologically dangerous practices. Others can be passively harmful by discouraging an appropriate action, by rejecting conventional medical treatment, for example.
- Social policies may be developed on the basis of erroneous, pseudoscientific claims, Nazi racial theory being a classic example.
- It has special appeal to the naive and vulnerable (adolescents, the poorly educated, or the emotionally troubled), who are taken in by the claims of exotic, mysterious and wonderful forces and powers, some of which can be acquired or used, and other of which are to be feared, marvelled at, or defended against.

Pat Kehoe is the director of the Mental Health Clinic in Whitehorse, Yukon. This article first appeared in the *Western New York Skeptics Newsletter*, and is reprinted with kind permission.

Uri Geller —The Conclusive Evidence?

Dominic Twose

Amazing feats by a psychic superstar

Perhaps now the ardent skeptics like Randi and Gardner will be silenced. Appearing on Thames Television on 5 September 1990, Uri Geller provided the most convincing proof of his strange powers yet witnessed. A whole series of demonstrations were carried out under the steely gaze of a collection of television cameras.

He began by reminding people that he was not and never had been a magician, and then proceeded to give a demonstration of his powers; he actually made time run backwards. Please don't make the mistake of dismissing this out of hand. Remember, telepathy and telekinesis were once considered to be science fiction until Geller demonstrated their reality. Now the same man has brought the fiction of time travel into the realm of science. Quite why he decided to demonstrate this ability on a magic programme *The Best of Magic* as opposed to a documentary programme such as *Horizon* I am hard put to explain; maybe he has become so thoroughly sickened with the attitude of the scientific world that he has discarded scientists totally. I also cannot explain why he did not get top billing on the programme in question; to my mind such a unique ability displayed by a man who must surely still be hugely popular among the British public deserved a programme all to itself. The demonstration consisted of refreezing ice, seconds after melting it, reforming popcorn

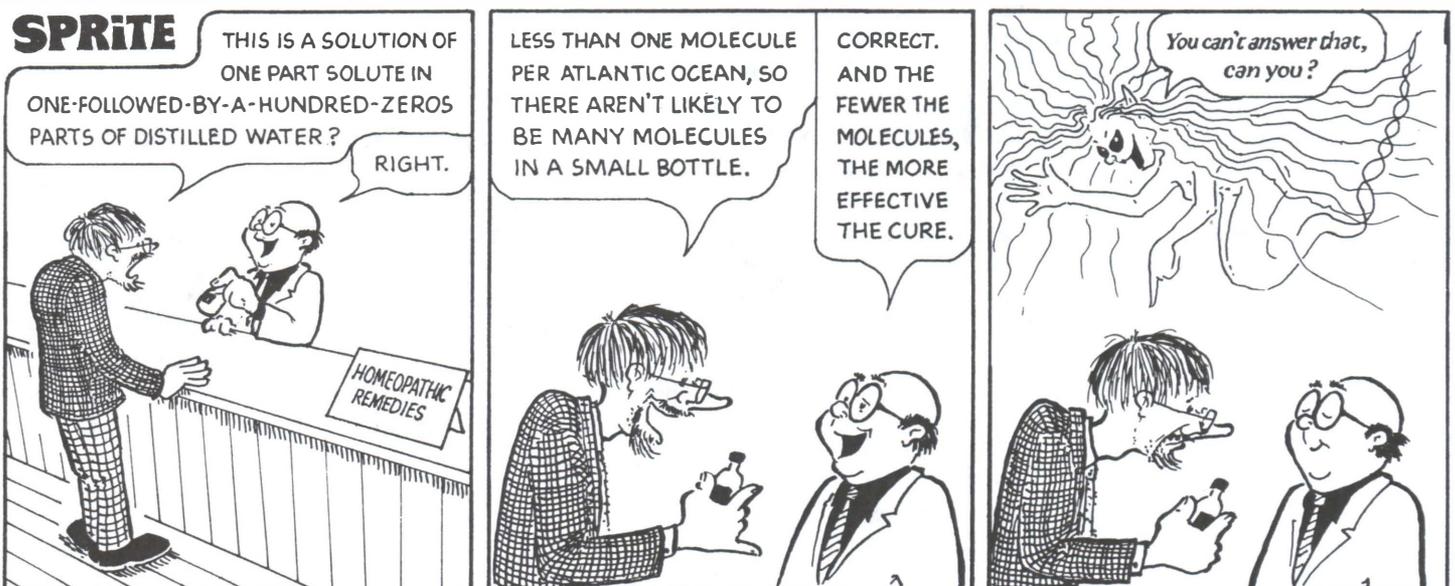
kernels after having turned them into popcorn, and untying silks which had previously been tightly tied. Furthermore, he gave a straightforward demonstration of precognition, by showing that a newspaper, which had been in full view of the audience, had been printed on the date of birth of a spectator chosen at random from the audience.

To date, the strongest evidence of Geller's powers had been the SRI experiments with Targ and Puthoff, and Byrd's nitinol wire trials, which Martin Gardner has done his utmost to discredit. But Geller's experiment on the above show far surpasses anything he has done before.

There has been some doubt expressed by those frightened of change as to the veracity of Geller's abilities, but this demonstration should silence the doubters, for two good reasons:

- I could see no way Geller could possibly have cheated, so it must have been genuine.
- At the conclusion, he asked viewers to look around their homes to see if anything strange or unusual had occurred. I did so, and was astonished to find that although his act seemed to have gone on for hours, in fact only five minutes had passed. Time travel indeed!

Dominic Twose is an Associate Member of the Inner Magic Circle.



Scientology: What is it? Does it work?

John Clarke

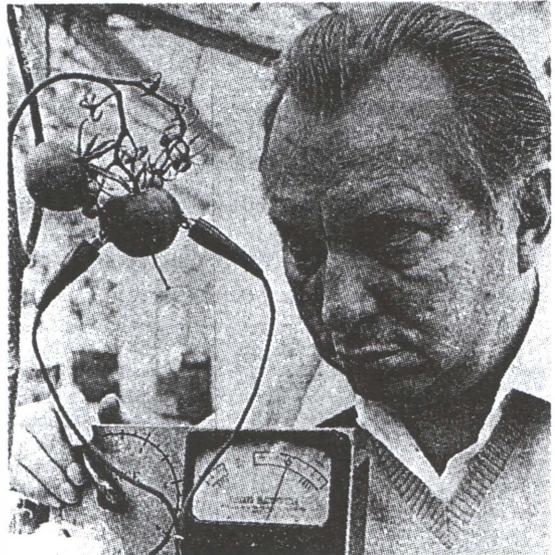
Is there anything worthwhile behind the cult image?

Scientology—then known as Dianetics—hit a world still partly in shock from World War II, in the columns of an early 1950 issue of the quite respectable US pulp magazine, *Astounding Science Fiction*. John W Campbell Jnr, its normally level-headed editor, went overboard for L Ron Hubbard's ideas and proclaimed that the source of all human ills had been discovered, as well as processes for eliminating them.

Needless to say, California went wild with delight, and the prime source-book, *Dianetics—the Modern Science of Mental Health*, quickly sold its first 50 000 copies and went into reprints. Citizens worldwide began practising Dianetic 'processes' on relatives and friends, and at first it was looked on by outsiders and media alike as a relatively harmless occupation with (then) no religious overtones.

Briefly, Dianetics stated that you have two minds: a Reactive Mind, from the early days of evolution, which is an emergency survival system and which is what makes you unthinkingly duck when you observe an airborne rock heading your way; and an Analytical Mind, with which you read *Skeptic* magazine and even write articles for it, tot up your income tax and laugh at Blackadder. Further, when survival is threatened, the Reactive Mind can kick the slower Analytical Mind instantly out of circuit and take unthinkingly remedial action. It is also what makes you pull your parachute ripcord after baling unconscious out of your Spitfire; and because your Analytical Mind has been bypassed, is why you can't remember doing it.

So far, so relatively sane. But Hubbard said that Dianetics also explains one of life's great mysteries—that animals get on quite well without nervous breakdowns, PMT, psychopathic behaviour and even politicians, whereas we humans, by comparison, tend to be quite potty. The answer? The Reactive Mind (even in the womb, where it develops first) understands language just as soon as the Analytical Mind learns language, and as the Reactive Mind has an excellent memory ('total recall', says Hubbard), even anything the embryo hears, gets stored away and later understood. (Extreme example: your Mum, when carrying you, bumps her tummy into a hard object, whereupon your embryo's Reactive Mind perceives this as a threat and starts recording Mum's loud remark: 'Oh, I am a stupid bugger'. Ever afterwards, you carry a 'time bomb' within you, which if keyed-in with a similar bump in post-natal life, convinces you you're an SB.)



This recording, which can be non-verbal as well, is called an engram—although Hubbard originally called them 'Norms', after mythical Norse mischief-makers. 'Engram' is in the dictionary, as 'a permanent trace recorded on biological tissue'. Hubbard said we all have lots of them, and they explain mental illness, irrational behaviour, self-destructive urges and much else. Get rid of them, and you have a well-balanced, relaxed, enthusiastic, calm, intelligent, largely carefree personality. (Now you know why Hubbard was so popular.)

You get rid of them by a form of 'psychotherapy' called Processing, in which the practitioner (the Auditor—meaning one who listens and figures out your answers) pinpoints your troublesome engrams and by going through them with you over and over, clears them out. You are thus a Pre-clear until you've got rid of them, whereupon you become a Clear—nothing supernatural: just a whole and superbly functioning human being, in command of your environment and the people in it; or in Hubbard-language, functioning on all four Dynamics. (Meaning optimum behaviour towards Self, Family, Group or Nation, and All Humankind; Scientology later added another four, but these will do).

After about three years, Hubbard introduced the E-meter, a kind of emotion-detector which helped track down engrams by their emotional charge. When you're closing in on an engram, the needle of the milliammeter drops and starts rising again as you come to grips with the engram's hidden memories, until it's erased. Yes, I found the E-meter works

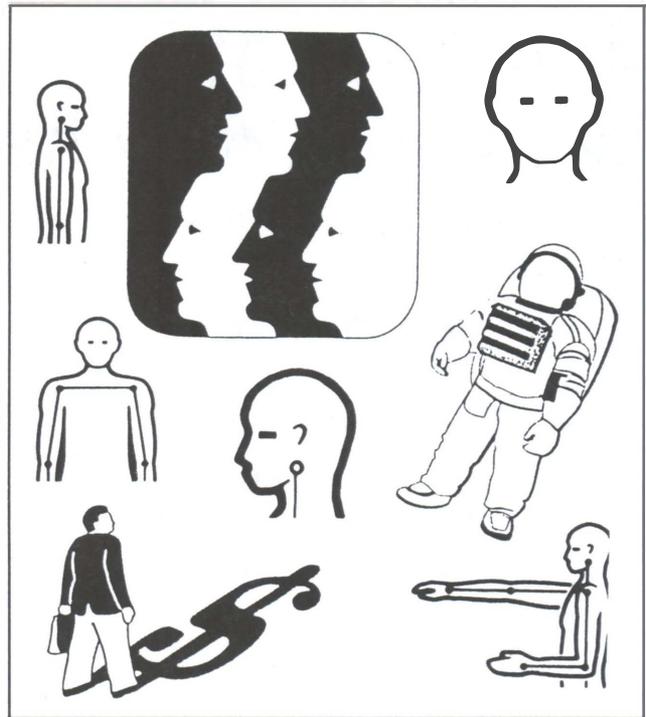
to a demonstrable degree. Put someone on it (they grasp metal cans in each hand) and mention death or even your mum, and the needle tends to nose dive (mums often restimulate painful engrams as a means of controlling you—'I'll tell your father to get the strap!').

Unfortunately (as I see it) E-meters also respond to imaginary incidents. In 1953, hotly pursuing an engram, I suddenly had a vivid image of being on the flight-deck of a spaceship which was zig-zagging through jagged scenery on Betelgeuse IV or something, when we hit some of the scenery. 'What the hell was that?' asked my auditor, unscrewing the milliammeter glass and unbending its needle. I explained. 'Oh' he said calmly, and carried on engram-chasing. I didn't mention that on the spaceship flight-deck, I had clearly heard the whisper of the air-conditioning system. It had never occurred to me before that's just what one *would* hear. (Oh, crumbs—don't say that Hubbard is right, and we're all seventy trillion years old, and have lived through billions of lives in thousands of universes. No wonder I get tired.)

Well, it seems that these imaginary incidents which register just as violently on E-meters as real ones, led Hubbard on to Scientology—we are actually all immortal 'Thetans', who arose from an eternal Consciousness which got bored, split into trillions of 'souls' and found it was still bored. So all these Thetan-souls began to play games with each other (hence our obsession with World Cups and things). But they found that, being omniscient, you already know how things will turn out. So you deliberately forget things. Then you forget you've forgotten. Then you forget even that it's a game, and it gets quite grim. And lo and behold, even your Thetan gets engrams. (Sorry—a piece of intelligent Hubbard comment: you can't have a Thetan or a soul; you must be it. As Hubbard said: otherwise, at death you could say 'bye-bye, soul, you go down to hell and I'll play chess with St Peter'.)

Phew. Anyway, Scientology processes can clear Thetans, too—and you become once more a super-being, able to zap planets and abolish universes, but of course much too nice to do so. But therapy can get so rough—unless you implicitly obey the Scientology 'Org'—that you might end up in a Dwindling Spiral and go paranoid (which, although I don't wish to be rude, seems to be what happened to old L Ron himself, judging from how he ended up). I mean, as early as about 1960 he was saying that the planet Venus was actually a hospital for injured Thetans engaged in an interplanetary war. If he'd gone there he'd have found the temperature is 800°C. And that's in the cool ward.

Back then, also, Hubbard invented the Church of Scientology, which was openly intended to be a defence from irate state governments; as in the USA, at any rate, you can't ban a religion. But when it got to the stage of pre-clears singing hymns to Ron, it reminded me so much of the Temple Colombs (bimbos in diaphanous gowns) of the Rosicrucians, that I baled out. So what's happened since 1964, you'll have read in the papers, which are even less reliable on the subject than the Scientologists. (Example: give Hubbard credit—he banned all drugs or hypnotism; yet since about 1954 the media have accused him of using drugs and hypnotism in Scientology.)



So much for what Scientology is all about: Dianetics encompassing all space and all time and all universes. Which in my opinion is better than religions which don't even mention Black Holes and are obsessed with evil apples, speaking snakes or an 'ark' on Mount Ararat (which, having once been a geologist of sorts, I can assure everyone is just like an eroded antisynclorium: a huge arch of strata, which if on a crest erodes into a boat shape).

Right, now—the vital questions. Are Scientologists barmy, and does it actually work? Well, everyone has opinions, but isn't it interesting that few people have ever adopted the scientific principle of 'suck it and see'? Admittedly, if you enrol in a course, they put you on the E-meter and ask 'are you investigating us?'. Whereupon down goes the needle and out you go. But many of the books are on sale and you can buy an E-meter, so the possibility exists of a thorough, fair check-out. But most reporters would rather write sensationalist codswallop and produce tearful mums whose daughters have been 'stolen' by Scientology. (To be fair again, in the 1960s' hysteria over such things, the fact that a couple of Jehovah's Witnesses called on an old lady one day and so scared her with tales of hell that she had a coronary and died, got about one inch at the bottom of page 10. But if that had been a couple of Scientologists...?). And even adults can be crushed by parental domination.

Again to be fair, originally Scientology concentrated more on relatively sane people with problems. 'To make the able more able' was the motto, and with this in mind, Hubbard's personal approach in the round or on tape was relaxed and reassuring, and often humorous. I suspect this is a reason for a good deal of adulation of the man, at least in the early years. I mean—here's this fellow with the universe in his hand, and he cracks good jokes. A lot better than a threat of hell from some holy-eyed drab who thinks he's got permission to call God by his first name?

As to whether it works—well, everything does for someone, and Scientology is no exception. Example 1: a relation by marriage—a real wimp in his early twenties, with an alcoholic mother and no future. Somehow he drifted into Scientology. Six months later: relaxed, confident, objective, natural sense of authority—and had sorted out his family, too. When one sat on his parents' sofa, one no longer heard empty bottles clinking. Example 2: Scientology lady sent out from England to tame the natives. Spotty-faced, unsure, dumpy blonde. Five years later, slim, vivacious, nice complexion, everyone eating out of her hand.

On the other hand, Clears are supposed to have perfect eyesight, said Hubbard. Two of the first four presented to us, had thick glasses. And there were always plenty of sad regulars who tried hard, but stayed exactly the same. (Perhaps they should have tried the shrewd bit of auditing I came across in 1958: the auditor asked me again and again—'Just how much time do you put in every day, making sure that you'll never amount to much?'. Try it on a dull friend—but remember to duck.)

All this is only a bare sketch of the formative years of Dianetics and Scientology, attempting to encompass what Hubbard filled half a dozen books and hundreds of tapes with. I have heard that it has not greatly changed since, although its practitioners seem to have developed a prime case of paranoia. Obviously, some Processes are derived from psychotherapy, and in fact his second book *Science of Survival*, Hubbard acknowledges the debt he owed to Sigmund Freud and his pupils. But some things make sense, in Hubbard's ideas. I admit I approve of Scientology's standard end-of-session commands: 'Think of a pleasant memory'—then, when the E-meter needle is rising nicely: 'Come up to present time'. Which doesn't leave the pre-clear half-stuck in the time he fell into a Black Hole. Or cheated at poker in Wigan and was found out. On the other hand, just as I've never met anyone who went to Lourdes with one leg and came back with two, ditto with Scientology. Zapping whole universes seems to stop short at creating two new legs.

Also, there is much more one could say about the political in-fighting which of recent years has been exposed in the cult—as discussed in Russell Miller's *Bare-faced Messiah*, for instance. But most of it has been said, to the substantial exclusion of what Scientology actually does; if anything. Although; after five years of sporadic Scientology I took it into my head to travel to a far-off land where I knew nobody; settled in, got a job and a cottage, and got married. Me!—to whom courage in the past was only a brand of beer. (But the feeling has mostly worn off now. Engrams rule—OK?).

Maybe Processing had nothing to do with it. Maybe it did. So my sole, and I hope objective, advice about Scientology is: be a scientist. Suck it and see. Buy a book. Buy an E-meter. And tell your friends you'll be back in another seventy trillion years, maybe, having at last discovered why you always come apart at the seams when your dentist reaches for the drill—Hubbard said it's because we were once all clams and they have a sensitive shell-edge . . .

John Clarke is an ex-geologist, ex-pilot, ex-copywriter, and author. He dabbled in Scientology for over 14 years on three continents. He thinks he is still sane, but is not sure.

Intellectually Respectable Creationism

Donald Room

It would be an error to suppose that all creationists embrace the crude antiscience of the Creation Science Movement, as witnessed by Jean N Dorricott (*The Skeptic*, 4.5). Alan Hayward, the author of *Creation and Evolution: the Facts and the Fallacies* (SPCK 1985), manages to be both a creationist writer and intellectually respectable. He writes, 'It is a pity the term "Creation Science" was ever invented. Creation is not a branch of science, and never can be. Creation is a matter of faith.'

The core belief of creationism is that every species is separately created, not descended from another species. Dr Hayward classifies creationists into 'recent creationists' and 'ancient creationists'. Recent creationists believe that all the species were created in a few days, about 6,000 years ago. Ancient creationists believe that there is, or was, a succession of creations, and that the fossil succession from simpler ancient species to more complex modern species indicates creative development.

Ancient creationists have existed since the late eighteenth century, when the age of the earth's crust was first calculated, and the fossil succession discovered, by geologists. These days the ancient creationists include the Jehovah's Witnesses, who believe that the bible account of creation is absolutely true, but that the meaning of the 'days' is not immediately clear and needs interpretation. Hayward details six possible interpretations, four of which agree with the ancient creationist position. Creationism as expounded by Hayward does not depend on pseudoscience, or on the exclusion or misrepresentation of data. Darwin's theory fits the facts more neatly, without the need for miracles, and is therefore to be preferred by the principle of Occam's razor. But Hayward's theory is not less honest.

One way of testing a theory is to see how well it accords with data which its author has not considered. Darwin's theory, for instance, gains in respect by its agreement with Mendelian genetics of which Darwin knew nothing. Hayward does not consider (or at any rate does not mention in his book) any species whose first appearance has actually been recorded. The garden strawberry species *Fragaria ananassa* is descended from a single plant which appeared in the Amsterdam Botanic Garden in 1750. It is commonly explained as a hybrid of the Virginian and Chilean strawberries *F. virginiana* and *F. chiloensis*, which became a new species by the accident of incomplete meiosis (Aldous Huxley, *Green inheritance*, Collins 1984.)

It might alternatively be explained, however, as a new creation. It would not contradict the evidence to contend that the first *F. ananassa* plant was an organism without ancestors, created in such a time and place as to mislead the botanists.

Donald Room is a cartoonist with a first class honours degree in biology.

Nothing but a Dirty Film?

Bill Penny

Polywater—the cold fusion of the 1960s

In the history of modern science there have been several disputes, sometimes quite heated, over controversial phenomena which were later shown not to exist. These are examples of what is sometimes called pathological science. Examples of pathological science are sometimes raised in discussions on the paranormal partly because they are instances where conventional science can become very similar to the paranormal—see, for instance, Dave Love's article on cold fusion in The Skeptic 3.4.

Pathological science is of relevance to paranormal research because it shows how researchers can mistakenly come to believe in the existence of a phenomenon. It shows how mistakes, self-deception, and careless or hurried research can lead to mistaken beliefs. But in the hard sciences, such as chemistry and physics, as the weight of evidence against the phenomenon increases, most supporters are able to accept they were mistaken.

The two classic examples of pathological science are N rays and polywater. I will discuss N rays in a future issue but in this article I would like to present the scientific 'discovery' which inspired Kurt Vonnegut's novel The Sirens of Titan with its lethal 'Ice 9'—polywater.

In 1962 Nikolai Fedyakin was working in a laboratory in Komstroma, a city about 190 miles from Moscow, investigating the behaviour of pure liquids in very narrow (about 0.003 mm diameter) glass capillaries. He found that over a period of a month a column of liquid about 1.5 mm long formed at the top of some of the capillaries, where previously there had been no liquid. Even odder than this separation of a pure liquid into two parts was the fact that the liquid in the top of the capillary was denser than the original liquid below it. His publication of these findings in a widely read Soviet science publication marked the start of the strange story of polywater.

Fedyakin's report aroused the interest of some scientists in Moscow, especially Boris Deryagin, the director of the Surface Forces Laboratory at the Institute of Physical Chemistry in Moscow. As early as the 1930's he had conducted research into how liquids very close to solid surfaces differed structurally from liquids in bulk. Deryagin and his colleagues began by repeating—and improving—Fedyakin's original experiment until it only took a matter of hours to collect a sample of this modified liquid several millimetres long. To try to prevent impurities getting into the liquid, they took great care over the liquids and equipment they used. However, they

found that the modified water they produced had very different properties to normal water: it froze at -30 degrees Celsius, boiled at 250 degrees, was 15 times more viscous and its density was 10% to 20% greater. It was this modified water which was later given the name polywater.

Between 1962 and 1966 Deryagin's laboratories published ten papers in a small circulation Soviet journal, and in 1965 Deryagin presented details of his work at an international chemistry conference in Moscow. Despite all this activity, western scientists were still not properly aware of the importance of the claims being made. Partly to blame for this was the way in which the papers actually understated the importance of their contents, and an inefficient translation system at the conference.

This situation changed with the 1966 Faraday Discussion at the University of Nottingham, where Deryagin presented a summary of his team's discoveries. He also speculated that polywater was more stable than ordinary water, with the implication that all water would eventually change into polywater, though this could take a very long time. He claimed that this work on modified liquids proved that liquids could exist in several forms. This phenomenon—called polymorphism—is known to occur in solids. For example, the element carbon can exist as graphite or diamond, and disappointingly, even diamonds are not forever: they change extremely slowly into graphite. As for polywater, Deryagin suggested that it could be caused by the solid surface of the capillary altering the forces between the water molecules to such an extent that the modified water could exist independently of the surface. Surprisingly, there was little reaction from the audience to his work or his speculations.

While he was in Britain, Deryagin visited several British laboratories which were interested in his work on polywater, and subsequently a number of British groups, including one led by Brian Pethica of Unilever, began research into polywater. The Russians continued their research but neither they nor anyone else was ever able to produce more than very small amounts of polywater. In 1967 Deryagin attended the Gordon Conference in the USA but once again his report on polywater was received with little interest. But things began to change with the 1968 Gordon Conference, where Pethica announced that his group had verified Deryagin's work. Most of the audience were skeptical but one scientist, Robert Stomberg of the US National Bureau of Standards, was interested enough to investigate further.

In fact, it was due to the US Office of Naval Research that the idea began to be taken seriously in the US. They were alerted in 1968 when the regular summaries they received recording developments in European research began to mention polywater. They reacted by setting up a conference in February 1969 exclusively for US scientists, to increase their knowledge about polywater. In this it was very successful and it was to America that the story now moves.

In early 1969 there were many speculations in the scientific journals on polywater, but the first serious report was in *Nature* (12 April 1969) in which Pethica summarised his findings. He confirmed some of Deryagin's results but warned that until polywater became available in large amounts it would not be known whether it was just an impure solution or actually a new form of water.

Then, on 24 May an Anglo-American team, which included Ellis Lippincott, professor of chemistry at the University of Maryland, announced that using spectroscopy they were sure that polywater was 'a new form of water and not the result of casual contamination.' They concluded it must be a polymer of water molecules.

But it was a paper which appeared in the 27 June issue of *Science* which more than anything else aroused the interest of US scientists in polywater. This paper, by Lippincott, Robert Stromberg and others, reported that after comparing 100,000 different spectra with the polywater spectrum they were sure that polywater was a new substance, which they believed was produced when the quartz capillary tube caused the water molecules to form a polymer. Their tests for contamination revealed minute quantities, but these were too small to have caused the difference between the polywater and water spectra. Lippincott and his colleagues increased the publicity they were receiving by travelling widely to different countries to give lectures on polywater.

There was much reporting and speculating on polywater in the scientific press but it was not until a lecture given by Lippincott in New York on 11 September that the news was published in the media worldwide. The media would probably have soon lost interest in this subject if it had not been for a letter F J Donahue sent to *Nature*. He wrote that polywater was 'the most dangerous substance on Earth', fearing that if molecules of polywater got outside the laboratory they could, because they were more stable than normal water, act as nuclei around which normal water could change into polywater, eventually turning Earth into a Venus-like planet. From this point the mass media were to play an important—but bad—role in the polywater affair.

In contrast to the growing support for polywater, at the end of 1969 a letter was published in *Nature* from a researcher into glass solubility suggesting that polywater was just silica contaminated water. In 1970 a team led by Dennis Rousseau of Bell Laboratories reported in *Science* (27 March) that careful chemical analysis showed that polywater was simply water contaminated with sodium, potassium, chlorine amongst other things, but hardly any silicon. In June many of the leading people in the polywater debate attended a conference at Lehigh University, Pennsylvania. Deryagin dismissed the contamination explanations by saying that these were the result of careless work, and that his own samples contained

only minute levels of contamination. The revelation by Lippincott that his polywater spectrum was almost certainly caused by contamination shook the belief of many supporters. Little new evidence was presented, and most of the scientists left as they had arrived, unconvinced by either side in the debate.

Little new data emerged during the rest of 1970 but many articles continued to be published including one by Deryagin on the evidence for polywater (*Scientific American*, September 1970). Robert Davis of Purdue University received much publicity without having published a single paper on polywater at that time. To support the contamination theory on polywater he was able to show an article from an obscure Russian journal in which a chemist reported that in 1968 an analysis of samples of Deryagin's polywater suggested it was caused by contamination. Its chemical composition suggested it could be of human origin, possibly sweat. This was reported in the *New York Times* of 27 September. In October Davis appeared in *Time* magazine with a photo of him at work, wringing sweat out of a T-shirt.

The year 1971 began with Pethica and his colleagues announcing that the recent work of others led them to think that polywater was a contaminated solution rather than a polymer of water. Deryagin's reply to this showed that he still believed in polywater. Chemical analysis continued to provide evidence against polywater and by now much of the argument had moved away from whether polywater existed to what the cause of the contamination was. The sweat and carelessness theories continued to have some support but it was the silica contamination explanation which was receiving increasing support. Headlines in *Nature* such as 'Polywater and Polypollutants' and 'Polywater Drains Away' reflected how attitudes were turning towards acceptance of contamination.

During 1972 and early 1973 papers on polywater were still being published, though in decreasing numbers. Nothing of significance on polywater was reported until the 17 August *Nature* in which Deryagin stated that more careful work had shown that polywater was caused by impurities in the water. The composition of these impurities depended on the method of preparation, but always included silicon (*Scientific American* September 1973). This can be considered the end of the polywater affair though the results of polywater research continued to be published for the next few years.

It is now believed that the properties of polywater are due to high silica concentrations. But it is also known that it could not all come from the quartz capillary tubes because quartz is not soluble enough to produce the required concentration of silica. This fact had been used by Deryagin against the claims of silica contamination. This is one of the questions which Felix Franks, in his definitive *Polywater* (MIT Press, 1981), claims had still not been satisfactorily answered when he wrote about these events in 1981. The negative label attached to polywater research may have delayed investigation into the exact nature of the contaminants, but what is now clear is that polywater was not at all what it originally appeared to be.

Bill Penny is studying for a higher degree in the North-East of England.

Psychic Diary

Toby Howard

A skeptical partygoer's nightmare

I'm sure you know the scene. You have been at the party for twenty excruciating minutes, juggling glass and crudités as you squat painfully on a Paisley futon—a dentist on one side and an Economics lecturer doing a night course in homoeopathy on the other. Conversation plods awkwardly around the major issues of the day—roadworks, trains and loft conversions. Outwardly, you are the perfect guest; your ums and ahs punctuate interminable monologues, your good-natured grin is in place. Inside, you're being barbecued over a slow spit. *Oh God, only another half an hour, then I can decently go . . .*

Suddenly, as the Economic Homoeopath extols once again the joys of extreme dilution, your negative opinions on the matter emerge. You divulge that you have certain minority views on pseudoscience in general, and pseudomedicine in particular. As the discussion broadens, it becomes clear that what at first appeared to be a simple difference of opinion (You: Homoeopathy is based on nonsensical ideas. She: I'm not a scientist; all I know is that it works) is in fact a symptom of fundamentally different views of the world. You are 'The Skeptic' and she is 'The New Ager'. People gather, as dull exchanges about ornamental fireplaces and the poll tax are abandoned. Soon she is touting body energy and pendulums, and you are providing expert testimony on everything from the Cottingley Fairies to the Face on Mars.

Everything is fine, as you explain various ways to make a spoon bend, and even try your hand at a little cold reading. The discussion drifts pleasantly through UFO abductions, bleeding statues, and Peter Popoff's famous faith-healing scam. Then, it turns to spiritualism, and you suggest that while there is absolutely zilch evidence of communication with the dead, mediums may—in some circumstances—provide a valuable earthly social service. At this point, a new face appears, and your heart sinks. It is 'Super Skeptic', and he has come to join in the discussion.

Super Skeptic does not believe in *anything*. His entire life runs strictly on rational lines. Super Skeptic believes that spiritualism and homoeopathy, along with astrology, aromatherapy, reflexology, dowsing, UFO societies, religion and all the other things he doesn't believe in should be BANNED outright. Debate, discussion, education and the democratic presentation of alternative views have no place in Super Skeptic's world—he has no time to waste pussyfooting. We know it's all dangerous rubbish, he says, and we should ban it now. Full stop.

Only another
half an hour...



Most of us, you argue, can relate to the world on several different levels, unlike Super Skeptic. Anticipating hoots and catcalls, you explain that you disagree with his dogmatism that everything short of quantum mechanics is irrelevant human twaddle. Constantly telling people in words of one syllable that they are fools for putting their faith in rank nonsense fosters alienation, you say, not a spirit of enquiry and reflection. But in the light of Super Skeptic's thundering, your views seem liberal in the extreme. You are worrying now that his rhetoric is beginning to tarnish your own. Thankfully, Super Skeptic does not stay long; he leaves—his parting shot 'I'll give you a ring'—and his acerbic comments are ridiculed even before he has left the room. You realise with relief that Super Skeptic was perceived for what he was. Perhaps this party isn't as bad as you thought.

The conversation resumes: laments of the huge fortunes of televangelists, and guilty laughs at stories of that brand of 1990s medium whose techniques are those of the used-car salesman. Whatever happened to good old ectoplasm? Eventually, time creeps towards decent exit hour, and you can slip away at last. At home you remember Super Skeptic's promise to call, and leave a special message for him on the answerphone. 'I'm out of my body right now, but you can leave your name and number . . .' Although you would prefer that he did not.

Toby Howard is a lecturer in computer graphics, a member of the Manchester Skeptics and co-editor of *The Skeptic*.

Skeptic at Large

Wendy M Grossman

So who is normal?

According to Toby Howard's *Psychic Diary* in the last issue, readers of *The Skeptic* are not normal. That means I must be a hopeless case. After all, I founded the thing, and have spent years imbibing this non-standard view of the world. I am devastated. Worse than that, Toby actually knows me, so his opinion is based on actual evidence.

One of the few actually useful things my mother ever told me (Lily Tomlin has a good line about the lies her mother told her, including 'If you're happy, I'm happy') was in answer to my question: 'What does it mean for someone to be insane?' My mother's answer: 'It means they can't tell the difference between fantasy and reality.' I was about 14 when she told me that.

This sounds like a good definition to me. My mother, for example, was pretty good at reality: reality is that if you get married you need fancy lamps, or that you shouldn't divorce a husband you can't stand if he's a doctor.

On the other hand, my mother knew (or thought she knew) that all religion was superstition. She was not interested in asking God what to do (you are welcome to disagree with her, of course). Religion has a lot of appeal: it means someone out there knows what's going on, and what you have to do is listen very carefully and maybe you'll make the right decisions. I can deal with this sort of religion; what I can't deal with is the sort of religion (and it's still around in some places) which tells you that if someone tries to do something bad to you the angels will come down and wop them. I don't think it's a sound basis on which to run a life, practically speaking.

However, I do think this is a lot of the appeal of the paranormal: someone out there knows what's going on (and it's not the crazy old man in Douglas Adams' *Hitchhiker's Guide to the Galaxy*), and there's a specific formula for finding out what it is. Guarantees like this are very appealing. But, again, is this a practical basis for running a life? On the other hand, is assuming no one knows what's going on a comfortable one?

The interesting thing is that people don't always think what they think they think, if you see what I mean. Take *Psychic News*, for example (and I'm not suggesting they're less than sincere). Four years ago, when they had a break-in and lost a day's mail, they did not call one of their psychics to find out who'd stolen it and what was in it. No, they called in Scotland Yard. I bet all those people we keep hearing about in California who bury crystals around their houses to keep burglars away also have burglar alarms and lock their doors

and windows too. And I would lay you eight to five that Shirley MacLaine, famed in song and story (well, she will be one day—Nostradamus got a song), who said, 'If you are angry your car won't start', had to call in the AAA to get it going.

I am not by any means saying that there aren't people who take the whole thing so seriously that they die of it—those who make the trip to the psychic surgeons of the Philippines being notable examples. But I'd bet they're a tiny minority of the population. So, remembering Robert Burns, who's normal?

Of course, skeptics have their (or our) fantasies, too. One of these is that if we explain everything simply and rationally, people will abandon their fantasies in favour of ours. But that's not what makes us abnormal. Nor do our actions make us abnormal—and nor does the fact that we're a minority (try calling some other minorities abnormal and see what kind of reaction you get). We're abnormal because we want to investigate to make sure we're right about which is truth and which is fantasy. It's a useful thing to know.

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



Donald Roum



Reviews

Things ain't what they seem

Lyllal Watson, *The Nature of Things*. (Hodder & Stoughton, £14.95).

It is inevitable that a book, lovingly crafted by Dr Lyllal Watson of *Supernature* and *Romeo Effect* fame should be imbued with elements of his psyche. With this in mind, and with the book clasped to my breast I went into a deep meditative trance and, on the third astral plane, conducted the following interview with that component of Dr Watson's personality which was resident in the book:

I: Hello, Dr W. Thank you for taking the time to talk to us.

Dr W: Hello. You're welcome.

I: You have recently seen published your book, *The Nature of Things*. Would you like to tell us what it's all about?

Dr W: My pleasure. I am fascinated by the interactions between living and non-living matter; I believe that when we come into contact with objects, particularly objects which we feel some attachment to, a little bit of us rubs off on them. We imbue them with energy, you see, which can influence the ways in which they behave at later dates.

I: What is this 'energy', precisely?

Dr W: It's unknown to science, of course. But it exists; psychics can sense it in the vicinity of standing stones and in handling ancient artifacts.

I: I see. And what are the consequences of your claim?

Dr W: Many and varied. Items which we have lost can return to us in most unexpected ways. Rocks from sacred sites bring doom on the heads of those who remove them. Cars start up of their own accord and run over passing pedestrians. Statues move and weep and bleed. Robots attempt to murder employees who don't like them—excuse such anthropomorphic terminology, but it helps force the analogy on the reader. Ships like the *Mary Celeste* shed their crews, or appear as ghost like images on the sea—I believe that the

sea can absorb this energy, too. I have the results of subjectively oriented wholly uncontrolled experiments by a prominent violinist bearing witness to the fact that his Stradivarius plays best near the place where it was fashioned. All manner of objects can be affected, and in many different ways—candles, buildings, blocks of ice. Not even golfballs are exempt.

I: Lumme.

Dr W: Yes, hard to believe, isn't it? But I have garnered copious evidence to support my thesis—that inanimate matter is evolving.

I: Pardon me, but I get the impression that most of these stories are the sort of thing you will find in the tabloid press, occult magazines, the *National Enquirer*, and the Fortean archives...

Dr W: Yes, there are certain similarities. It's a rotten job collecting this kind of evidence—but someone's got to do it. I am, however, impressed by the consistency in these reports, even if some individual sources are unreliable. Are you familiar with the 'bundle of sticks' argument?

I: You mean that a tonne of bull's offal equals one top-grade sirloin steak?

Dr W: I wouldn't quite put it that way, but each to his own. No, there are patterns here that must be taken seriously. *Man* and *thing* are inextricably intertwined. Things are often extensions of our desires; we project our wishes into them. We form organic bridges between them.

I: 'Scuse me?

Dr W: Organic bridges are the links between ourselves and objects; they transfer the energy from one to the other. A lawn mower is an extension of the gardener; scissors are an extension of the cutter. Organic bridges. In fact, this concept gives us remarkable insight into the 'Cold Fusion' affair. Did you know that the German and Latin roots of *Fleischmann* and *Pons* almost spell out 'organic bridge'?

I: No. I hadn't noticed.

Dr W: Surprisingly, not many have. It indicates a link between the two men and their apparatus, and perhaps explains why those two will be the only ones to ever get that particular result. It may be relevant to the Benveniste affair, as well—just one more example of a martyr crucified on the cross of scientific prejudice, if you don't mind me saying so.

I: I was recently informed by a dowser that the reason Harwell failed to replicate the results of F&P was that the laboratory is built on a bad Ley Line. Surely parsimony dictates that you should accept this explanation?

Dr W: No.

I: Why not?

Dr W: Because it would be inconvenient for me to do so.

I: Fairenough. Going back to the issue of playing with names,

Science: Good, Bad and Bogus by Martin Gardner

'Absolutely fascinating'—*Isaac Asimov*.

'Gardner wields Occam's Razor like a switchblade'—*Newsweek*.

This classic collection of essays is now available from Prometheus Books in a new paperback edition. Price £10.50 (including postage and packing) from Eddington Hook Ltd., 406 Vale Road, Tonbridge, Kent TN9 1XR (Tel: 0732 357755).

I note that the letters of your name can be jumbled up to give *all a Ly*—with the outstanding letters, WTSON, *almost* spelling out *Botswana*. I believe that when the editors of this magazine were attempting to contact you for an interview, you were on holiday in that very country. Isn't this meaningful? And what do we make of the letters that don't fit: *baa*?

Dr W: Errr . . .

I: Moving on. You are, it seems to me, espousing essentially two doctrines. One—Animism. Two—the belief that ideas can take on a life of their own. Throw in a good dose of really *serious* magical thinking, and it seems we've summed the whole thing up rather well, don't you think?

Dr W: You have a habit of speaking pejoratively. Animism is a word redolent of the primitive.

I: But it's that kind of philosophy.

Dr W: Precisely. Which proves my point.

I: Err . . .

Dr W: Don't worry. This sort of reasoning comes naturally to me. Magic, isn't it?

I: I was somewhat concerned with the near total lack of skepticism towards the weird phenomena you describe, and for your convenient conception of scientific method and the rules of evidence. Excuse me for thinking that such an unskeptical view seems highly surprising in a trained biologist.

Dr W: You're excused. However, I can immediately point to page 27, where I register my skepticism about the efficacy of a 'cure' wrought by a healer in Vanuatu. He claimed that a man's illness was caused by the evil inherent in some stones he owned, and after performing a ritual over the stones the man's illness went away. I expressed some skepticism over the ritual as a cause for this cure.

I: But you then nonetheless go on to say that there are so many similar stories that maybe we should take it all seriously after all.

Dr W: Hmm.

I: I will say that your book is nicely written. Very atmospheric.

Dr W: I find that style is important in literature. Don't you remember the Hundredth Monkey phenomenon?

I: Can we move on to one more of your examples? Your discussion of the neutrino is particularly laughable, um, interesting. Tell us about that.

Dr W: Ah yes. I believe that the neutrino was a scapegoat. Science had to invent this particle to extricate itself from the discomfort caused by some empirical anomalies—violations of energy conservation, and what have you. Eventually, enough people believed in it to make it appear—and it was found. Makes yer fink, dunnit?

I: So all of the successful physics of the early Universe, which incorporates the neutrino, has to be thrown away?

Dr W: I hadn't thought of that.

I: Never mind. Maybe our wishes can travel back in time.

Dr W: I hadn't thought of that either. Thank you for extricating me from my predicament.

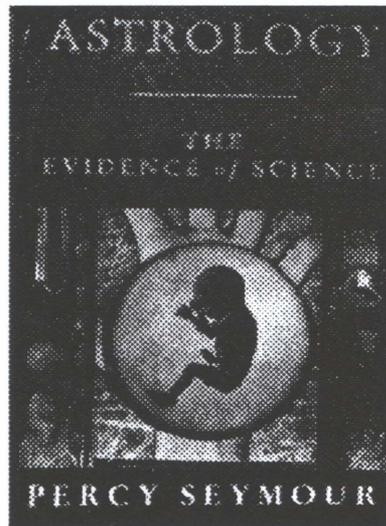
I: You're welcome. Finally, how much does your book cost?

Dr W: £14.95. Ho ho ho.

—Robin Allen

Astrology: A star goes supernova

Percy Seymour, *Astrology: The Evidence of Science* (Arkana, £5.99).



When this book was first published in hardback edition I reviewed it at some length for this magazine (issue 2.6). The paperback edition, which has recently been published by Arkana contains a remarkable preface, written in response to reviews (mine and others) of the hardback edition.

To recap, Seymour is a professional astronomer at Plymouth Polytechnic whose book

proposes a causal mechanism for the correlations which have been observed, in some studies, between certain personal attributes and the disposition of heavenly bodies. These correlations are held by some to 'prove astrology', although they are so weak and so particular that astrology clearly failed in its only really reliable test to date: a double blind experiment conducted co-operatively between astrologers and scientists [*Nature* 318, December 5th 1985, p419]. It says little for Seymour's judgement that according to him, and despite the input of leading astrologers in designing the experiment, this work tested 'the embroidery, not the principles' of astrology. Seymour's idea is that the Moon and planets raise tides in the Earth's magnetic field, which may be amplified by 'bays' in the outer atmosphere. These fields are then picked up by human foetuses, whose chemistry plays a role in determining the time of birth.

I stated in my review that insufficient information is given to allow numerical calculation, and that the theory must be viewed at present as a speculation. This led Seymour to a virulent riposte that I had not read his detailed monograph, to which the book refers, which is lodged with the British Library. I hadn't and I still haven't—By academic standards, this is an obscure source for anyone writing a full paper, let alone a book review. But, more importantly, all the mathematical theorems concerning 'resonance' between the foetus and the field are irrelevant, for it only takes one unquantifiable link in the argument to make the whole theory untestable. To date the space physicists have found no evidence for, and have no theory of 'amplifying bays'; nor do life scientists have any evidence for how a foetus might be impelled by the field to bring about its birth. Until this is done, Seymour's idea is properly viewed as speculation. But that is not so bad: since the correlations are unexplained, speculation is appropriate. No reviewer has denied this. Logically, no theory can be tested in isolation; it has to be tested against other theories. So, in case Seymour develops his idea further, here are two testable, proposed alternatives: the effect of the weather in very early life, and the effect of aggregating people year by year for educational and other purposes.

Seymour takes issue with comments made by Nigel Henbest, in *New Scientist's* original review. Henbest stated that the orbital periods of the planets, as seen from the Earth, are variable, so that it is impossible for a foetus—which unlike a radio cannot vary the frequency to which it is sensitive—to 'tune in'. Seymour replies that the foetus could respond to the average frequency of a planet, which is well-defined and is distinct from planet to planet. But, according to resonance theory, it could only do this at the expense of sensitivity. A tuner has to be arranged to respond to a band of frequencies, or you would never find any station—you would always just undershoot or overshoot when you adjust the dial. And the broader the response band, the less sensitive is the receiver at the peak. For a foetus to remain sensitive to the band of frequencies of a moving planet, the response would be quite extraordinarily insensitive. This is a powerful argument against Seymour's idea. Moreover, all of this presumes the capability of a foetus to respond to magnetic fields of minute magnitude, which is biologically quite unproven.

It is in the final paragraphs of the preface that we catch a glimpse of Seymour's private demon. In a disturbingly intemperate passage, he compares the arguments of his critics to those 'justifying' racial oppression in South Africa; quotes Cromwell's 'I beseech you, in the bowels of Christ, think it possible you may be mistaken' (both Cromwell and Seymour would have done better to practice this than preach it); and concludes, incredibly, by referring to the Holocaust. He doesn't actually state that his critics, given half a chance, would have been running the gas chambers; but the drift is clear. Why mention it otherwise? On behalf of those who perished in the Holocaust, and their living relatives, I protest at this utterly inappropriate and insensitive comparison.

Seymour also tilts at the scientific establishment: he quotes a quantum writer: 'One of the best kept secrets of science is that physicists have lost their grip on reality. News of the reality crisis hardly exists outside the physics community . . .'. Nonsense: many more popular articles and books have been written on the curious implications of quantum mechanics than on any other aspect of modern physics. For technical reasons I do not believe that the 'non-realistic' viewpoint is forced on us by quantum theory; but if you want anti-realism, you would do far better to look at the people who are quoting Seymour's work. This is but one of many selective arguments which Seymour employs. Together with his inability to tolerate even measured criticism, it broadcasts a warning that his book is unlikely to attain scientific standards of impartiality.

—Anthony Garrett

Erratum

In the last issue we published an article by Jean Dorricott in which we inadvertently referred to Dr Rosevear PhD, C Chem, FSRC as 'Chairman of the Christian Science Movement'. This was due to a typographical error and should have read 'Chairman of the Creation Science Movement'. We apologise to Dr Rosevear and Christian Scientists and Creation Scientists everywhere for any confusion or offence this error may have caused

Astrology for parents

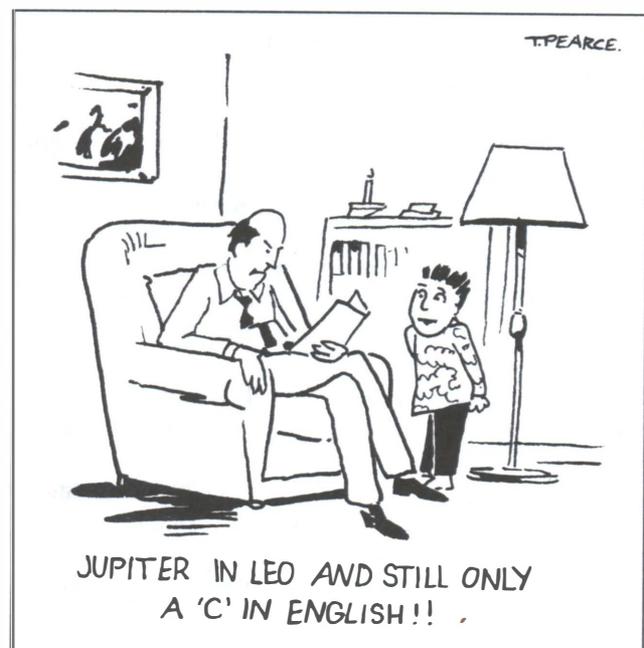
Haydn Paul, *Your Starchild*, (Unwin, £5.50).

From under a gooseberry bush (I'm not sure that's how my girlfriend would like to be described!) came a highly mobile, extremely concentrated focus of entropy. He does inexplicable things, and can lay waste an entire room in minutes. If you believe recent newspaper reports—we did without reading them—he has a sense of humour. As any parent will surely agree, children are hilarious, fascinating and entirely disruptive.

Haydn Paul, author of *Your Starchild*, would like to explain to us all just what is going on when our children misbehave, scream, shout or shit on the sofa. He promises to do so 'through the lens of Astrology.' In an almost entirely worthless book, he manages to pack in page after page of truisms, clichés, and patronising, astrological drivel that only the most bigoted believer of astrology could read without laughing. Readers of *TheSkeptic* are hopefully more open-minded, not believing in something so lacking in supporting evidence as astrology. Try and decide which 'star sign' this refers to: 'Learning to walk is an important step in development for them, and this tends to be between a year and fifteen months.' Or how about ' . . . tend to settle into school life easily, and are quite suited to the type of education that they will receive over the years.' For even more penetrating insight into a child's psyche, try 'the environment surrounding your [starsign] child is extremely important and influential to his development.'

The book also contains a 'starchart' for Beatrice, daughter of Royals Andrew and Sarah, which speculates on essential elements of their relationship to come. ' . . . and her social status will open many doors for her in later life.' All is not assured, though, as 'the astrological type of the family nanny will also have a conditioning impact on Beatrice.'

—Nick Beard



Pagan poems

Robin Skelton and Margaret Blackwood, *Earth, Air, Fire, Water* (Arkana £7.99)

It is well known that the Christian religion took over older, pagan rituals, sacred sites, and festivals. Skelton and Blackwood drew on a variety of sources to put together their collection of more than 250 poems, rhymes, incantations, and folk song lyrics to give a picture of this older religion: the worship of the Goddess, or, as the book's cover says: 'Pre-Christian and pagan elements in British songs, rhymes, and ballads.'

The book has an introduction, which explains the basics of the pagan religion and describes the gradual assumption of its rituals by the Christian church. The bulk of the book is the collection of poetry; the authors finish with a collection of notes explaining the meanings of the various poems.

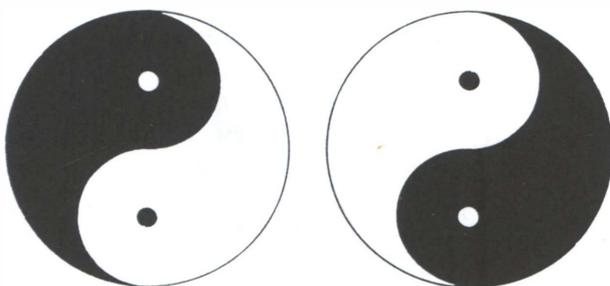
Those who are familiar with the standard collections of folklore and folksong—Percy's *Reliques*, Mother Goose, the Child Ballads, and the various works of Baring-Gould—will probably not find anything very new in this book. The notes are, compared to most of the major sources, sketchy. If the authors' intent was to paint a picture of the pagan religion, it seems to me the book would have worked better if the poems had been set in the notes, and these greatly expanded.

On the other hand, those who are unfamiliar with folklore will find this a reasonable introduction to the subject, and for them it's probably more fun to be able to read the poems uninterrupted. One point: 'folklore' is a broad term for these authors: the collection includes poems by W B Yeats, Ben Jonson, and Walter de la Mare.

—Rachel Winston

Physics and mysticism

T J Axon, *Beyond the Tao of Physics* (Tehuti Press, £3.95).



'And I am infinitely saddened to find myself suddenly surrounded in the West by a sense of terrible loss of nerve, a retreat from knowledge into—into what? Into Zen Buddhism; . . . into extra-sensory perception and mystery' —Bronowski, *The Ascent of Man*

I'm inclined to share Bronowski's view of the influence of such ideas—the latter one unsurprisingly so for a contributor to this magazine. Axon sets out to show why I might be wrong about the Zen bit at least. Sub-titled 'Mysticism and modern physics, a reappraisal,' this monograph addresses issues raised by Capra's *The Tao of Physics*, which 15 years ago claimed a close connection between the theories of 'modern'

physics and the doctrines of eastern mysticism—highly New Age. Axon is a former experimental physicist who is clearly widely read in the relevant branches of philosophy and belief and thus probably unusually well-qualified to write such a book.

The introduction aims to show that a mystical viewpoint is not inimical to physics by ascribing such tendencies to luminaries like Einstein, Schrodinger and Bohr, which should be a sufficient weight of authority. It is not clear to me, however, to what extent they held such views in early life when they were doing their great work and even less so how such views might have influenced that work; my guess is rather little if at all. This seems an important point since, after all, Einstein spent his last 30 or so years (when he may have been more mystical) apparently on the wrong track.

The first chapter examines the nature of mysticism. It is clearly a multi-faceted thing but, as Axon points out, not necessarily synonymous with occultism (psi and magic) nor largely irrational.

Chapter two deals with 'The Physicist's Conception of Reality', with a perspective on modern physics—basically relativity and quantum mechanics. It starts by examining its intellectual origins and suggests that mystical influences allowed an escape from a strict mechanistic viewpoint to enable Newton's concept of action at a distance, for instance. After uncontroversial discussion of the 'arrow of time' and the picture of space and time from general relativity we get to a discussion of 'views of reality' discussed in terms of ideas from the theory of quantum mechanics (QM) which is perhaps more contentious. This focuses on the ultimately bizarre nature of QM with regard to what it says (or is interpreted to say) about 'measurements' and 'spooky action at a distance' and goes on to discuss two philosophies influenced by these ideas. A welcome note is made of the lack of theoretical basis QM gives for psi.

The main trouble I always find with such philosophical discussions of QM, its supposed implications for holism in the world and the like, is that physicists who actually perform everyday measurements of quantum mechanical systems overwhelmingly don't appear to run into the conceptual problems that are correctly pointed out as being there at the deepest level. They don't usually become swayed towards a holistic, non-mechanical, or whatever, view in the way that philosophers and theoreticians (to some extent) do. I don't, of course, know why the world doesn't *usually* appear that way even when investigated on a suitably microscopic level, but the fact that it doesn't must counsel caution even if QM ultimately is the correct view of the world despite the serious problems it seems to have.

The final chapter draws together strands from the different varieties of 'world-view' of both mysticism and physics. Axon finds the strongest parallel in an 'absolutist' view rather than the ideas of change stressed by Capra. He considers the various possibilities for what mystical 'perception' is. The concluding section discusses the cultural significance of mystical/physical parallels. I was left with an impression of a balanced treatment of the issues with Axon coming down firmly but undogmatically in favour of the real significance of mysticism in this context.

In the end I'm still not convinced that any mysticism/physics parallels are more than coincidence, mainly because I don't think the evidence of a correlation between a mystical outlook and success at physics is good. This scholarly monograph certainly deserves attention if you are interested in these issues, though, and you may not come to my conclusion. Its extensive bibliography could be particularly valuable for a more in-depth study and it perhaps deserved better production than the typescript format in which it appears, and wider exposure.

—Dave Love

The unexplained

William R Corliss (Ed.) *A Catalog of Astronomical Anomalies* (Sourcebook Project, PO Box 107, Glen Arm, MA 21057, USA, \$18.95).

For many years now, William Corliss has been scanning the scientific literature in search of events or observations for which there is, apparently, no ready explanation. He has catalogued them in a series of privately published books of which this volume is the 21st. 'It is simply astounding that a Catalog of Scientific Anomalies does not already exist' Corliss writes in his preface. 'It is at least as important to realize what is *not* known as it is to recognize the well-explained.'

Agreed, but deciding between the two is not easy. For example, one of the first cases in this book concerns sudden changes in the orbits of artificial satellites. In fact, the changes are not real, but are caused by the use (or misuse) of erroneous data by the author of the original paper. Corliss refers to another paper that completely demolishes the original claims but still fails to recognize that the original papers are bad science and should never have been published.

Another case concerns the small crater Linne that has been suspected of change. Space probe photographs have confirmed that the reported changes were simply errors of observation. Hence Linne, like many other examples in the book, ranks as a historical curiosity rather than an anomaly.

To those who wish to pick off individual cases like this, Corliss responds: 'For every anomaly or example that can be legitimately demolished, ten more take its place'. This is the same argument used, for example, by proponents of UFO cases, which I term the 'rotten apple' argument. It can be rephrased as 'a barrelful of rotten apples is better than one rotten apple' and it is clearly fallacious.

That said, Corliss's main intention is reasonable enough: it is to rescue various strange and wonderful natural phenomena from neglect, on the reasonable supposition that science should advance by examining the apparent exceptions to its rules. The problem, I think, lies in distinguishing between unexplained phenomena *that can be accommodated by known laws*—as with the volcanos on Jupiter's moon Io and the kinks in the F ring of Saturn—and what requires genuinely new rules to explain it, as did the moving perihelion of Mercury which required the theory of relativity.

Among the fascinating curiosities in this book you will have fun deciding for yourselves what is bad science, what is due to observational error, and what is genuinely anomalous.

—Ian Ridpath

NDEs, the universe and everything

David Lorimer, *Whole in One: the Near-Death Experience and the Ethic of Interconnectedness* (Arkana £6.99).

I was rather disappointed by this book, with its clever title and important subject matter. NDEs occur widely, in remarkably consistent forms and can have powerful effects on people's lives and especially their spiritual values. They cry out for a critical approach which still does justice to their nature and effects.

In this book the experiences, from the life review and panoramic memory to mystical insights and changes in the sense of self, are well described with numerous examples. However, the explanations offered are a mish-mash of nice-sounding unifying concepts. We are led via Bergson's filter and Bohm's implicate order to accept such concepts as telepathic prehension, emotionally charged thought-forms, empathetic resonance, psychometry (with a handbook on the topic being described as 'epoch-making') and the power of the pendulum.

One conclusion is that 'contrary to the expectations of the materialists, consciousness is expanded and intensified after death . . . inner and outer memory are preserved . . . and . . . can be accessed by sensitives.' (p 70) 'The life review is not an end in itself, but a necessary stage which enables further spiritual growth.' (p 71).

That spiritual growth is compared to Maslow's 'self-actualisation' but the possibility that a psychology without anything paranormal could ever encompass such things seems to be ignored. 'Evidence' from hypnotic regression and channelled messages is used to arrive at the idea of a moral universe where unfair or arbitrary situations appear meaningful.

Lorimer's treatment of many religious and philosophical moral schemes is thorough, and perhaps the major thrust of the book. But although he explores such ideas as impermanence and the Buddhist concept of no-self, he very much assumes a substantial and continuous self, having faith and free-will and ultimately being reincarnated.

Finally he draws his conclusions on ethics, interconnectedness and spiritual values. Many readers will find them greatly comforting but I cannot accept the basic argument that psychic phenomena and the NDE are evidence for interconnectedness and this in turn is the way 'to absorb the essential lessons of life and love' (p 287). For those lessons can certainly be learned by his straw man, the materialist, too.

—Susan Blackmore

The perils of woolly thinking

Lorna St Aubyn, *The New Age in a Nutshell* (Gateway Books, £4.95).

'Care must be taken here not to tip too far into right-brain behaviour so that equally undesirable imbalance is created and one becomes woolly-minded and lacking in discrimination.' This quote is one of quite a few warnings to the New Ager in this book. Unfortunately, the authoress appears to

ignore her own advice. The text covers many topics—too many to detail here—and does have the advantage of shortness. But, I would not recommend it to those of you who are easily enraged by woolly-mindedness.

However, the book does seem to indicate that some of the criticisms of New Age ideas are getting through to its followers. This does not mean a rejection of the ideas, but rather modification. For instance, if two or more people claim to be reincarnations of the same person, this does not imply that they are all deluded. On the contrary, obviously they are part of the same soul group, and have shared their past experiences by empathy and telepathy.

I was taken by the idea of National Karma: '... certain countries and races have agreed to be used to expiate specific issues or to accomplish certain tasks ...' The authoress suggests that Poland has suffered so much during her history that it must be a corporate act of redemption. Does this mean that the attempted genocide of Jews by Nazi Germany was to expiate our sins? Were the allies wrong to stop Hitler? Or is this a case of woolly thinking? In conclusion, a further quote from the book: 'It is easy to be gullible and be exploited. This is especially true if our wishful thinking is being satisfied.'

—Dave Martin

Experience of God

M Maxwell and V Tschudin (Eds.) *Seeing the Invisible (Modern Religious and Other Transcendent Experiences)* (Arkana, £6.99).

The Alister Hardy Research Centre has accumulated over 5 000 accounts from people describing their experience of (what they take to be) a transcendent power (whether or not called the power of God) and its influence on their lives, and 144 of these accounts are presented in this anthology, without any critical comment. A bibliography lists works of Eliade, Freud, James, Jung, Laski, Maslow, Stace and Underhill, among others, but no mention is made of any remotely skeptical material. The original appeals for information did not specify experiences that were 'spiritual' or 'religious', but were nevertheless oriented towards belief in some sort of divine being, and most of the respondents had a Judaeo-Christian background. However, while many of the accounts are of the traditional evangelical variety, others involve visions of the recently departed, 'out-of-body' experiences, or impersonal peak and mystical experiences involving sensations of light, feelings of cosmic purpose, unity with Nature, and so on. In some cases the percipients speak in terms of depth psychology or Eastern mysticism, or simply of a Creative Power.

The accounts presented seem to be entirely sincere, describing very personal experiences that often took place at times of great sorrow, stress or uncertainty, and which were clearly of great value in the percipients' own lives. It would be interesting to compare these accounts with those of both mystics and ordinary people in other cultures, to see if any common factors emerge, clothed in possibly varied imagery.

A neutral approach would be to acknowledge the importance of these experiences in helping people to make sense of their lives, perhaps in difficult circumstances, without pre-

judging the validity of particular interpretations, whether psychological, theological, or metaphysical; unfortunately the editors have not followed this course consistently, and give instead the impression that only a conventional religious interpretation needs to be considered in most cases.

Most of the accounts make no mention of paranormal phenomena in the usual sense, and do not lend themselves to scientific evaluation. Clearly, religious visions and feelings are notoriously subjective, and may reflect either the percipients' own cultural patterns of belief together with psychological responses in the face of stress—or, conceivably, a real glimpse into a reality transcending this one—who can say? It would be premature to come to any definite conclusion, but I wish the skeptical case had been mentioned, even if only in passing.

—Mike Rutter

A fine man

Richard P Feynman, *What Do You Care What Other People Think* (Unwin Paperbacks, £4.50).



When DC comics decided to change Superman's man-of-steel image and imbue him with psychological hangups my last hero bit the dust. True, there was an upsurge of teenage admiration when Neiland Buzz went for a stroll—and Clapton's guitar playing still inspires, if not worship, at least envy. But if I were to have a hero still it would undoubtedly be Richard P Feynman, Nobel Prize prize

winning physicist, safe-cracker, bongo player and prankster extraordinaire who died of cancer in February 1988.

The *Feynman Lecture Series* is a series of textbooks well known to all physics graduates but *What Do You Care ...* and the earlier *Surely You're Joking, Mr Feynman* capture the essence of Feynman's character and intellect more than any textbook could ever do. The first section of the book consists of a series of essays, most of which—as with the previous book—were related to his bongo-playing partner Ralph Leighton during their drum sessions. The book is thus conversational rather than literary in style and the essays cover topics as diverse as 'The Making of a Scientist'—where he discusses the influence on him of his father—and 'Hotel City' where he recounts his experience of staying in a brothel whilst attending an international conference in Geneva. The second half of the book is subtitled 'Mr Feynman goes to Washington: Investigating the Space Shuttle Disaster' and is an account of his important role in investigating the Challenger disaster.

Both this book and *Surely You're Joking ...* give an insight into the workings of an exceptional mind, with an intense thirst for knowledge—but both are also enjoyable, humorous books with which to curl up in a comfortable armchair. I heartily recommend that you put both of them on your Christmas wish list.

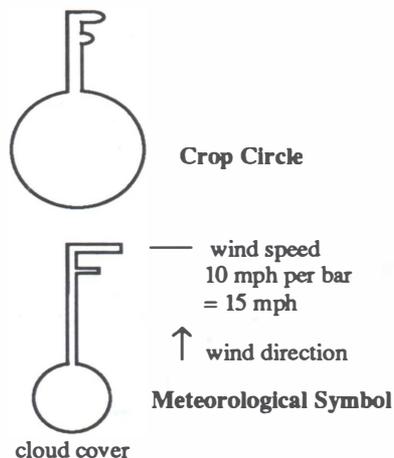
—Steve Donnelly



Letters

Whatever the weather

Too late for inclusion in my letter on crop circles (*The Skeptic* 4.5), our newspapers and TV carried photographs of new circles in the Vale of Pewsey, two of which are identifiable as standard meteorological symbols (on planet Earth) for wind speed and direction, and cloud cover. As pilots are completely familiar with these symbols, and would have a real reason (aerial viewing of their handiwork) for such hoaxes, might I suggest that putting all pilots at nearby flying clubs on lie detectors, might winkle out some culprits?



In the same issue of *The Skeptic*, Wendy Grossman, commenting on media coverage of the circles, concluded with 'I'm sure out there somewhere there are some people laughing themselves sick at the expense of the BBC'. A splendid prophecy, because I certainly am; only last night (September 20) BBC-1's *Tomorrow's World* showed these same crop circles and announced that their origin was still a mystery. Doesn't anyone at the Beeb know anything about everyday science?.

But it's further evidence of the validity of Clarke Epigram No 4c: 'Facts kill a circulation-increasing argument stone dead, so our media prefer ill-informed opinions'.

John Clarke
Uxbridge

Floating blobs

I just noticed Rob Lee's 'eye witness' letter on page 31 of the September/October issue, and thought that you might like to know that UFB's (unidentified floating blobs) are also fairly common phenomena in the world of microscopy. Usually they are a nuisance, as you can mistake them for micro-organisms and waste a lot of time trying to focus on them, but in education they have an unexpected use. I hesitate to call it a benefit.

Brownian motion (the random movement of particles buffeted by gas or water molecules) is an absolute swine to demonstrate under normal school laboratory conditions. Due to the shortcomings of currently-available materials it can take ten or fifteen minutes to successfully coax a tiny quantity of extra-fine smoke particles [1] into the viewing chamber [2] and illuminate them correctly [3]. When this is done the result is a dark field of view with (if you're lucky) a few tiny glowing flecks floating about and moving in and out of focus.

I'm an educational technician with 18 years of experience under my belt, but even on a good day I can only get this to work for one or two out of the six sets of apparatus we normally provide for this experiment. Unfortunately the teacher then usually spends half an hour rabbiting about Brownian motion before telling the pupils to take a look, by which time the particles have settled out or stuck to the sides of the container. Despite this, most physics pupils believe that they have seen Brownian motion. What they have actually seen is little bits of grunge floating around in their own eyes, as described by Mr Lee. Since most of them don't use microscopes in any other context, and since the seeing conditions are fairly unusual anyway, the illusion is fairly convincing. Most teachers don't attempt to disabuse the pupils, a few actively encourage the mistake by

describing the particles so vaguely that UFBs match the description. The end result is that pupils believe that Brownian motion exists because they've 'seen the particles move'. The fact that they have been told what to expect, and experienced a subjective phenomenon as an objective event, rarely crosses their minds.

None of this is to say that Brownian motion doesn't exist; the real thing is totally unmistakable, with hundreds of tiny dots twinkling like stars. They are much prettier than UFBs, but there are so many variables, and it's so transient a phenomenon, that it's extremely hard to make it work for more than a couple of minutes with normal school equipment.

Technical Notes

[1] Currently we use smoke pipetted from a piece of burning twine, and capturing this smoke causes most of the difficulties of the experiment. When waxed paper drinking straws were available it was much easier; you held the straw at about 45 degrees, set fire to the top end of the straw, put the lower end in the chamber, and waited for smoke to come out in a handy stream that made preparation a doddle. Plastic straws just give off black soot and melt. Another triumph of modern technology!

[2] A glass cell about 10mm high by 3mm diameter, capped with a cover slip resting on a ring of ground glass. These cells protrude well above the stage (flat bit) of the microscope, making it easy for pupils to knock over apparatus and/or attempt to drive the microscope lens (cost £20-40) through the ground glass top of the cell. They are inevitably filthy, and the cover slips usually get coated with soot while preparing the experiment. If they are wiped clean they often get charged electrostatically, then attract all the smoke particles and ruin the experiment.

[3] Side lighting in a very thin horizontal plane above a black background. The apparatus incorporates peculiar linear bulbs that can only be found in this equipment and in old illuminated Lego bricks!

Marcus L Rowland
London

Astrological comment

As a non-professional astrologer, may I be permitted some sceptical comments on Anthony Garrett's article in the May/June issue?

1) Asking readers to identify with an artificially-constructed all-purpose non-astrological 'reading' is not proof of the non-validity of astrology, unless it can be shown that this reading bears a statistically close resemblance to a random selection of genuine astrological readings. Even then, it could be argued that it tests only peoples' subjective views of themselves, regardless of whether astrology is involved or not.

2) It is true that information can be obtained through 'cold reading' in personal consultations, but this cannot be so for computer-generated readings—has this been tested?

3) 'Companies increasingly look at the birth charts of job applicants'. Which companies, and can this be proven to be a bad thing?

4) '... astrology will become part of political manifestos.' Which political parties, in which countries, and can this be proven to be a bad thing?

5) 'A court case involved an astrologer who had advised against a needed operation for a child; the child died.' When and where did this occur? Where was it reported? What are the background facts? Would the child have died anyway? Were the parents also prosecuted? What exactly were the charges against the astrologer and was she/he found guilty or not? Why couldn't Dr Garrett find better anti-astrological ammunition than a single unsourced FOAF-type tale? If unnecessary deaths and injuries caused are to be criteria, why not also ban the entire medical profession?

6) Concerning the withdrawal of an astrologer from a meeting of the Glasgow University Astronomical Society, he writes that this '... was part of a common pattern.' In order to show that a pattern is occurring, full facts and figures need to be furnished (I believe this is known as the 'scientific method' of proof). Speculation that is not backed up with facts remains simply speculation.

7) Ms Ridder-Patrick is '... very atypical' amongst astrologers in her assertions that 'it doesn't matter what you believe' and that 'she didn't believe in astrology'. In the absence of any surveys on what astrologers actually believe this statement can be no more than speculative. Altogether, I expect much higher standards of argument from a physicist.

Moving on to another article, I am grateful to David Langford for revealing that the 'Thirteenth Zodiac Sign' was a hoax conceived by a fellow SF writer. In fact, very few astrologers took any notice of James Vogh's books—learning to divide the 360 degrees of the Zodiac by 13 instead of twelve was just too much work. However, having just had a quick re-read of *Arachne Rising* and *Astrology & Health*, I am not prepared to accept Sladek's claim that it was no more than a joke and a money spinner entirely. Both books show a considerable working knowledge of astrology and astrological symbolism; Vogh's theories have an internal consistency and make sense to an astrologer—a difficult achievement for a disinterested hoaxer. I strongly suspect (and this is no more than speculation) that 'James Vogh' was a True Believer in what he wrote; John Sladek's assertion that it was only a joke sounds to me like an atheist's down-playing of an embarrassingly religious episode in his past.

Val Dobson
Preston

... And statistics

The discussion of meta-analysis in *The Skeptic* 4.5 is part of a larger and continuing controversy over statistical methodology. Before statistical techniques are applied to data on something as contentious as the paranormal, we had better be certain that they are correct; otherwise, erroneous conclusions may result. One of the more disturbing features of orthodox statistical practice (known as sampling theory) is the existence of several different methods for answering the same question from the same data. Logically, there can only be one correct method. Proliferation arose because these differing methods were invented for use in

specific problems in which the dataset has particular numerical characteristics. The answers given in such cases are close to what we now know is correct, and this is a testament to the early sampling theorists. Unfortunately a generation of textbooks has quoted these methods as being generally applicable, when in fact they are approximations which are accurate only in certain circumstances. The correct answer is obtained by using the two laws of probability, known as the sum rule and the product rule, and nothing else. These rules have been derived from some very basic desiderata of consistency, so that to use anything inequivalent is inconsistent. Indeed, since probability theory is a mathematical theory of logic for making the best guess in the absence of sufficient information for certainty, and is not a field-testable scientific theory like (say) relativity, internal consistency is the only way of generating its rules. Probabilities are assigned according to the information available; and if fresh information is obtained, the probabilities may be revised. Therefore there is nothing wrong with this theory if, on the basis of what is known, it assigns a low probability to rain tomorrow, yet it subsequently pours; the problem lies rather in unavailability of the extra information that a storm was approaching. This is called the objective Bayesian view of probability, or more usually just Bayesian. The view generally espoused by sampling theorists is called frequentist; it essentially confuses the logic of probability theory with physical theories of the real world.

Meta-analysis is the study of how to combine data from different experiments in order to test a particular hypothesis. But the Bayesian view already provides a unique, simple and consistent prescription for doing this. Meta-analysis is an inconsistent pathology which is as inappropriate in paranormal experiments as anywhere else. I look forward to Bayesian analyses to see what we can really learn from the parapsychological data.

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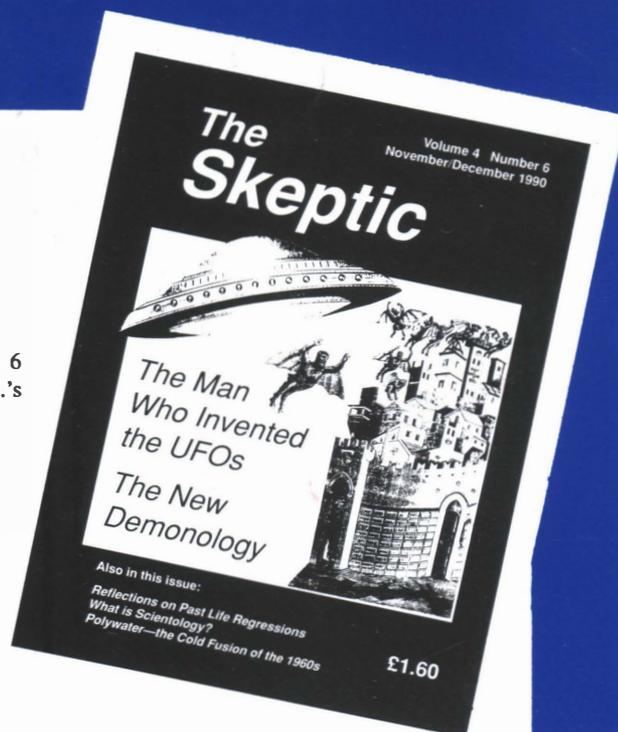
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